

A THEATRICAL APPROACH TO THE
ORIENTATION OF NEW GRADUATE NURSES

by

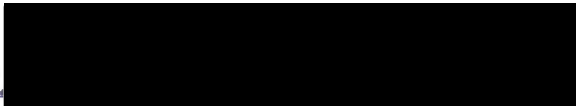
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A FIELD STUDY


Presented to
the School of Nursing and the
Graduate School of the
University of Oregon Health Sciences Center
in partial fulfillment
of the requirements for the degree of
Master of Nursing

June 11, 1976

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ACKNOWLEDGMENTS

The writer wishes to express her appreciation to Barbara Gaines, D.Ed., for her continual guidance, assistance, and encouragement throughout the preparation and completion of this field study. In addition, the writer extends appreciation to Sandra Stone, M.S., and Marie Berger, M.S., for their time and assistance in the completion of this study.

The writer also wishes to express her appreciation to the cast participants and the new graduate nurses without whom this study would not have been possible.

Sincere appreciation is extended to my family and friends for their support and assistance. And a special note of thanks is given to Jim, a friend, whose patience, support, and constant encouragement made the completion of this field study a reality.

c. m. h.

This study was supported
by a traineeship from the
United States Public Health Service
Grant Number 5A11 NU00035-16

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CHAPTER I

INTRODUCTION

As Metzger (1967) emphasizes: "The first impressionable days on a new job may make the difference between a productive, efficient employee and one who soon may become dissatisfied and may leave. . . . To avoid wherever possible the high cost of turnover, hospital management should establish a sound employee induction and orientation program" (p. 62).

The preceding quotation aptly points out two concerns of employers in all institutions--ever-increasing turnover rates and a possible solution to the problem. A high turnover rate is synonymous with economic loss. The time and energy required to retrain new personnel is costly. Metzger (1967) estimated "that turnover, even where nonskilled workers are concerned, costs approximately \$200 per employee" (p. 62). Since this figure was estimated in 1967, one could assume a much higher cost to the employer in 1975. Hospital nursing staffs are no exception to this problem of budgetary losses accrued from employee turnover.

Catania (1964) states: "Although the turnover of nursing personnel may not be as high as some of the other departments in a hospital, it is high enough to cause concern" (p. 93).

The second concern of employers or management is the causal effect of high turnover rates. Metzger (1967) supported one solution to the problem--"a sound employee induction and orientation program" (p. 62).

Increasing turnover rates have also been attributed to poor selection and job dissatisfaction. However, the researcher can best contribute to employee retention by developing a well-established orientation program. Working as Educational Services Coordinator of a large hospital, the researcher can effect a change in the present orientation format.

Traditionally, orientation, if in existence, consists of lectures and films on employee benefits, payroll, personnel policies, fire and safety, and a tour of the facilities. Registered nurses, previously employed in several other hospitals, have alluded to the staleness of such an orientation program. Each hospital presented an orientation program so similar in its format, that one nurse thought she might teach the course. With such reactions from newly hired employees, one questions whether this traditional approach to orientation is helpful. As Chapman (1975) points out: "Orientation can be an illuminating and satisfying experience for the new employee or it can merely be time spent without much advantage to the individual" (p. 44).

Review of the Literature

Many authors have referred to the positive benefits derived from a well-developed orientation program (Chapman, 1975; Gahart, 1975; Hahn & Magill, 1973; Jacobs, 1960; Metzger, 1967; Penzer, 1973; Reagan, 1973; Scully & Stopera, 1974; Vining, 1973; Watkin, 1974). Barrett (1968) aptly emphasizes: "Efficient administration of any organization is dependent upon a well-developed program of orientation for its members . . . [in order for them] to function efficiently and safely . . . [and to become] highly competent practitioners of nursing" (p. 349). These

benefits are further delineated by Jacobs (1960) as, "lower cost; improved quality of work; increased productivity; reduced accidents; reduced waste; and increased job satisfaction for the employee" (p. 89). However, though the attributes of an adequate, well-established orientation program have been repeatedly praised, the development and implementation of such a program has remained a problem (Chapman, 1975; Gahart, 1975). Throughout the past fifteen years, the major concern of employers has been the economic burden of ever-increasing turnover rates (Berke, 1960; Catania, 1964; Dean & Palmer, 1973; Jacobs, 1960; "In-service Alone . . .," 1973; Metzger, 1967; Vining, 1973; Watkin, 1974). Even though the turnover rates are not entirely attributable to inadequate orientation, the bulk of research findings leans toward orientation as a key factor (Berke, 1960; Jacobs, 1960; Metzger, 1967; Scully & Stopera, 1974; Vining, 1973; Watkin, 1974). In addition to inadequate induction or orientation, other causative factors of increased employee turnover have focused on poor recruitment (Berke, 1960); personal commitments, such as marriage, pregnancy, and relocation; and, poorly constructed personnel policies (Catania, 1964). Job dissatisfaction as a causal effect has been delineated as such by Dean and Palmer (1973). However, several authors (Berke, Jacobs, "Inservice Alone . . .," Scully and Stopera) allude to this factor in referring to on-the-job training and staff development as determining factors in employee retention. Staff development could be considered one facet of job dissatisfaction. However, it is also an extension of orientation, since orientation is the first step in staff development.

The traditional approach to employee orientation has consisted of

a list of several topics presented mostly in film or lecture form. Generally, this list includes part or all of the following: employee benefits, personnel policies, fire prevention, safety program, cardio-pulmonary resuscitation, credit union benefits, workman's compensation, payroll, body mechanics, and a tour of the facility (Gahart, 1975; Metzger, 1967; Brigham, Note 1; Carley, Note 3; Davy, Note 5; Lerma, Note 8; Yap, Note 11). The major hospitals in the study area extend the orientation for nursing personnel to include: admission, discharge, care after death, chart forms, isolation, team leading, pharmacy, laboratory, and respiratory care (Brigham, Note 1; Carley, Note 3; Davy, Note 5; Lerma, Note 8; Yap, Note 11). However, the methods of instruction continue to be mostly lectures and films, with utilization of demonstrations and video tapes to some extent. The only exception to this approach is an institution which has recently progressed to a problem-solving approach. The orientee is given several case studies from which she solves the problems of doctor's orders, completing requisitions and ordering supplies, laboratory tests, and/or radiological tests essential in the care of the specific patient (Main, Note 9).

With the exception of the above institution, deviations from the aforementioned traditional approach have usually focused on an individualized orientation, either in its entirety (Chapman, 1975; Hahn & Magill, 1973) or in combination with a formal orientation ("Inservice Alone . . .," 1973; Penzer, 1973; Scully & Stopera, 1974; Watkin, 1974; Carley, Note 3; Davy, Note 5; Lerma, Note 8). The individualized approach, whether alone or in combination, has been a step in the right direction. The importance of developing an orientation to the actual

job situation according to the individual's needs and skills, has always been essential. One cannot assume what an individual knows or does not know. At the study institution, the researcher has worked extensively with the Unit Supervisors and new employees in establishing orientations to the clinical area on an individualized basis. However, the concern of the researcher is with that "first impression" or the initial exposure to the hospital setting and an effective method of lessening the shock of working on the nursing unit. As Penzer (1973) points out, "by the end of a formal, traditional orientation program the employee is disillusioned, and his interest and level of motivation are waning" (p. 17).

In order to further substantiate the need for a change in the method of orienting new employees, it is necessary to look at the audience--in this instance, the new graduate nurse. What methods or approach has the new graduate been exposed to during education? As early as 1965, trends in nursing education were in a process of change. Television lectures were augmenting the teacher's presence in the classroom. This was a new innovation at the time, and instructors were concerned about the impersonal nature of television and the need for follow-up instruction (Espelien, 1965). Others focused their concern on the academic and routine nature of lectures which did not allow for ways of applying knowledge to practice (Christman, 1966). Since this period in nursing education, the trend has moved to self-directed learning for the student (Christman & Kirkman, 1972; Langford, 1972; Wittkoff, 1972), where the student is allowed "to function at his own speed and in his own best way to learn what he chooses at any given time to meet objectives set (his own or course objectives)" (Langford, 1972, p. 649). The student in a

self-directed or self-instructional method of learning has the availability of a wide-range of resources--a laboratory containing carrels equipped with audio and color video reception, facilitating the use of many possible programs; a simulated nursing unit, including patient units, nurses' station, facilities for the preparation of medications and handwashing and monitors for viewing individualized self-instruction of nursing procedures; a nursing laboratory for making and viewing clinical situations in the hospital; and a closed circuit television system in the hospital (Wittkoff, 1972). These multiple resources have been available to lesser extents in other institutions (Christman & Kirkman, 1972; Langford, 1972). However, the concept of self-directed learning, even without elaborate facilities, has been basically the same. The student has the opportunity to choose and learn as much as he or she wants and at his or her own pace.

The self-directed learning approach to nursing education has also been implemented in many of the Portland area schools of nursing. Since the study institution draws primarily from these schools of nursing, it is essential to look at their curricular approach. The hospital employs associate degree, diploma and baccalaureate degree graduates. Both of the associate degree programs in the community are focused on a self-directed method of learning (Hale, Note 7; Rice, Note 10). The major diploma program in the metropolitan area, however, is in a developmental stage in respect to self-directed learning (Bryant, Note 2). Currently, fifty percent of their curriculum is lecture oriented. However, the school has recently purchased video equipment and is in the process of establishing carrels for individualized instruction. The baccalaureate

programs are in direct contrast to one another (Cory, Note 4; Fenelon, Note 6). One program is primarily self-directed, with emphasis on problem solving. When a lecture is used as a means of presenting material, it is approximately fifteen minutes in length, or more accurately an introduction to material to be discussed by the students themselves. Conversely, the other baccalaureate program utilizes the lecture technique with some seminar and discussion groups. Video equipment is available, but as an additive to lectures or discussions in a group. There is no availability of individualized instruction with the exception of the nursing arts laboratory. In summary, three of the five major schools of nursing, from which the study institution employs new graduates, have implemented the current trend of a self-directed learning approach.

The evolution to a multi-media, self-directed learning atmosphere of present-day nursing institutions, demands some innovative changes on the part of hospital educators. As noted earlier in the review of the literature, hospital orientation has remained relatively untouched in the past fifteen years. The traditional approach to orientation, though specifically delineated by Metzger (1967) and Gahart (1975), has been the method utilized at several hospitals in the Portland area (Brigham, Note 1; Carley, Note 3; Davy, Note 5; Lerma, Note 8; Yap, Note 11). An article by Reagan (1973) describing an innovative, theatrical approach to orientation, brings out the reality of how stagnant the orientation programs, past and present, have become. Graduates of modern institutions exposed to innovative teaching and learning techniques, can at least expect something more than a program fifteen years their elder.

Statement of Problem

The review of the literature repeatedly points to orientation as a key factor in employee retention, yet, the approach to orientation has remained untouched. Conversely, schools of nursing have progressed to more innovative methods in education. Therefore, it would be appropriate and beneficial for hospital educators to change their approach to orientation to meet the change in population.

Purpose of the Study

Contrary to the traditional, lecture method of orientation, this study will attempt to develop and test dramatization as an innovative approach to the orientation of new graduates to the hospital setting.

CHAPTER II

METHODOLOGY

The review of the literature substantiates the need for an innovative approach to the orientation of new staff. Reagan (1973) describes a theatrical approach to be used in place of the traditional lecture-film method. She delineates much of the subject matter, previously given in lecture form, that her hospital and staff now dramatize. Reagan (1973) summarizes the results: "The nursing department is pleased . . . , especially since the head nurses report that much time has been saved in orientation on the units. The evaluations submitted by the new staff reflect what we had hoped: our live pictures are worth many words" (p. 1225).

The present pilot study is an attempt to actually test Reagan's orientation program in a different setting. The content and format, with some revisions, has been taken from the article by Reagan, "Orientation the Off Off Broadway Way." Permission to duplicate has been obtained directly from the author (see Appendix A).

Setting

The study institution is a 455-bed community hospital in the Northwest. It is a new facility, having undergone many changes and innovations since its construction three years ago. Nearly every medical specialty is represented at the institution. However, the cardiovascular

and orthopedic specialties encompass the largest patient census. Many of the students from the two baccalaureate programs in the metropolitan area have their clinical rotations at the study institution, as well as many students from non-baccalaureate schools. All new employees of the hospital attend a one and one-half day orientation program presented by the Personnel Department. So as not to influence the study group, however, the Personnel Orientation Program was attended after the pilot orientation program, post-tests, and evaluations were completed. In addition, nursing personnel receive from two to six weeks of clinical orientation depending upon each individual's previous experience, their individual needs, and the unit to which they are assigned. New graduate nurses at the study institution receive five to six weeks of clinical orientation.

Sample

At the study institution, nurses are employed as the need arises and as qualified nurses apply for the positions. Hence, in a given week the hospital may hire no nurses or up to three. The exception to this number of nurses hired occurs in the months of May and June. In addition to the positions which are unfilled due to a lack of qualified nurse applicants, many positions are made available by a high turnover rate before summer months. In the Northwest area, the majority of nurses graduate from schools of nursing in May and June. Therefore, a large number of new graduates are employed during these months to fill the available positions. Since these are the only times during the year that a large group of professional nurses is available, the new graduates employed during the months of May and June were chosen as the population to be tested in

the pilot study. The actual number is dependent upon the availability of staff positions.

Development of the Program

In previous years at the hospital, the new graduates attended a traditional, lecture type of orientation program. Its effectiveness, however, was not tested and cannot be used as a control measurement for the present pilot study. In addition, the number of new graduates employed in the month of May has traditionally been at least one-half the number hired in June. Therefore, utilizing the May group as a control group would not facilitate the study. Even though evidence of a need for a new approach to orientation cannot be determined at the study institution itself, literature has substantiated a need for a change to meet the population of new graduates. Therefore, the present pilot study attempts to develop and test the effectiveness of dramatization as an approach to orientation.

The orientation format, including fourteen scenes over a three-day period, centered around the patient and his family. It began with his admission to the hospital; progressed through his hospital stay, including preparation for surgery, immediate post-operative period, sterile dressing change, isolation set-up, cardio-pulmonary arrest, and several team conferences; and concluded with his discharge home. The scenes exemplified particular concepts of patient care, nursing responsibilities, the principles and rationale of certain procedures, and routines specific to the study institution. The primary focus, however, continually remained on the patient, his family, and their needs. Periodically, the

drama was interrupted by a group workshop session or discussion session (see Appendix B). This period allowed time for questions, criticisms, development of nursing care plans and peer critiques, review of pertinent nursing policies and procedures, a chance to have further explanations or demonstrations of equipment and practice sessions, including cardio-pulmonary resuscitation, sterile dressing technique, and taping report.

The diagnosis of the patient, "peptic ulcer with a history of congestive heart failure and pulmonary complications," was chosen to set the stage for a wide variety of situations which could occur during the patient's hospital stay. The specific content areas to be dramatized and discussed were selected in accordance with needs expressed by previous new graduates oriented at the hospital, and areas noted directly by the researcher as inadequately performed on many nursing units. For instance, prior new graduates had requested lectures and demonstrations on suctioning technique and equipment, oxygen equipment and the rationale for mode of administering oxygen, cardio-pulmonary resuscitation technique and emergency medications, and particularly chest assessment since most had had minimal or no exposure in school. Since the nursing units had recently been utilizing the team nursing approach, the patient interview, nursing care plan, team conferences, and discharge planning were in varying stages of development. Therefore, special emphasis was given to these areas in the orientation program. The taping of the end-of-shift report was also a new innovation at the study institution. Since many new graduates had not been exposed to taping report, a practice session was provided. The administration of medications, sterile dressing technique, and the isolation procedure were problem areas on the nursing

units to varying degrees. The researcher also noted minimal student experience with sterile technique since the deletion by many schools of dressing changes on the units. Likewise, medication administration was minimal at at least one baccalaureate program in the metropolitan area. This particular nursing school provided three weeks of pharmacology theory and many of its graduates had never passed team medications. Therefore, these areas were also dramatized, discussed, and/or practiced in the orientation program. Other areas, such as admission to the hospital, nursing unit admitting procedure, pre-operative preparation, and the immediate post-operative period, were included since they were routines specific to the study institution and facilitated continuity in the dramatization of a patient's hospitalization.

Each cast participant in the drama enacted his or her normal role in the hospital with the exception of the patient and his wife. Therefore, memorization of lengthy scripts was not necessary. A script, containing entrance and exit cues as well as general information and actions to be followed in each scene, was given to each member of the cast (see Appendix B). In addition, the cast participants were supplied with a compact listing of days and times each was to be available for his or her part. An assistant from the Educational Services Department also telephoned cast members at the beginning of each day to remind them of the specific times each was to be available. A second advantage to having the members of the cast enact their normal roles was the visual contact of the audience with various department personnel and a means by which they could delineate each person's job responsibilities. The selection of cast participants was a combination of referrals from assistant directors,

department heads who knew a person with acting background, and the researcher's knowledge of individuals who were out-going and highly capable in their job performance. With the exception of the transportation orderly and the "wife," no one in the cast had had previous acting exposure. The team leader, in addition to being highly capable, had also been working with patient assessment, interviewing, and team conferences on her unit. The "wife," who had a previous acting background, had also recently gone through her own husband's hospitalization. The "patient," a key role in the drama, came highly recommended by several persons. His intelligence, maturity, and ability to ask appropriate questions of those responsible for his care made the orientation drama seem real. The social worker, discharge coordinator, dietician, respiratory therapist, recovery room nurse, and intravenous department nurse were included in the drama to exemplify to the audience their availability and job responsibility in the hospital setting. With the exception of the discharge coordinator, dietician, and the respiratory therapist, these persons were department heads. Each cast member, recommended or selected by the researcher, accepted the part when asked to participate in the orientation drama. With one exception, the cast remained intact for both performances. The patient aide did not wish to participate in the second performance and was replaced.

The orientation drama was staged in a conference room. The basic setting consisted of a bed, console, over-bed table, and chair representing the patient's room. To the side, there was a table and chairs denoting the nurses' station. The two were separated by a patient screen to provide a visual separation for cast and audience. In addition, there

was a podium to the right for scene introductions.

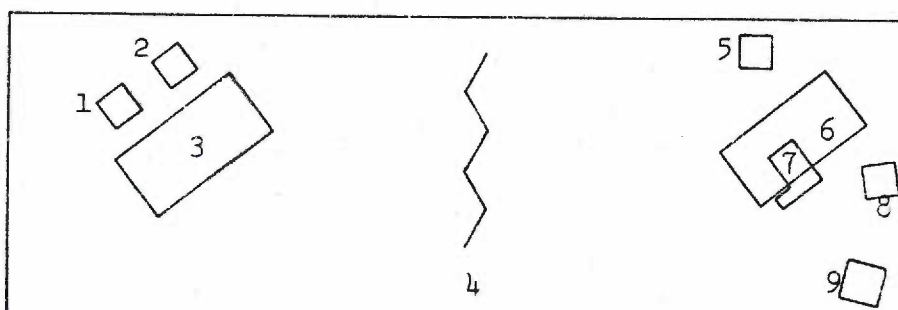


Figure 1. Basic Stage Setting

- | | |
|-----------|-------------------|
| 1. chair | 5. console |
| 2. chair | 6. bed |
| 3. table | 7. over-bed table |
| 4. screen | 8. chair |
| | 9. podium |

The nurses' station was converted into the admitting clerk's desk or social worker's office as the scene dictated. These set changes only required moving a chair.

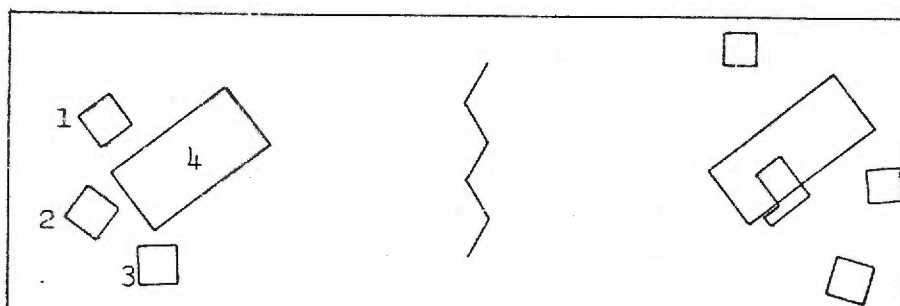


Figure 2. Admitting and Social Work Office

- | | |
|----------|---|
| 1. chair | 3. chair (deleted for social worker's office) |
| 2. chair | 4. table |

When a team conference occurred, the direction of the table was changed and the chairs were moved. The discharge planning conference required two large tables and nine chairs.

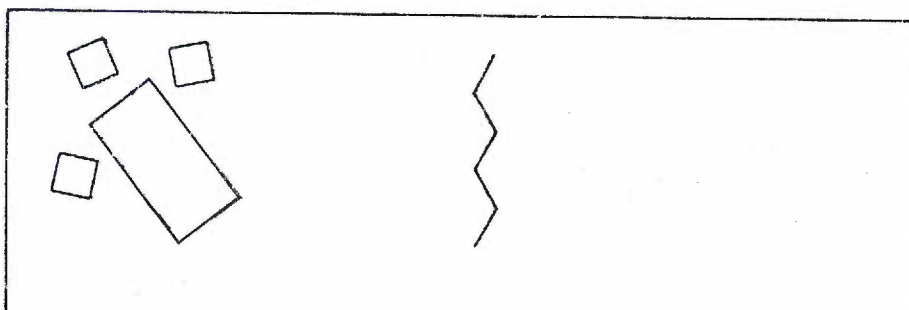


Figure 3. Team Conference

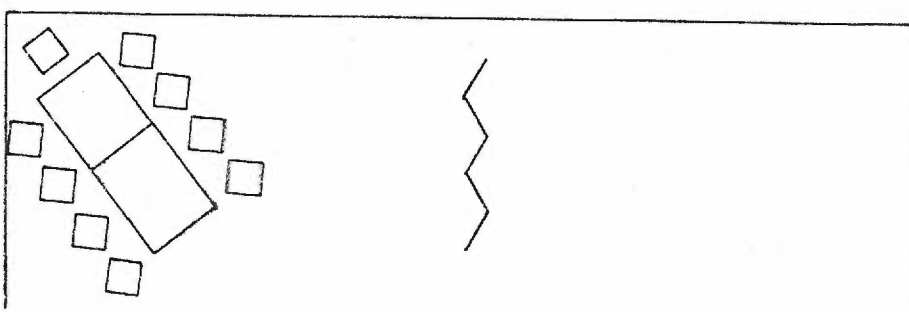


Figure 4. Discharge Planning Conference

As exemplified by the diagrams, the dramatization necessitated minimal set changes between scenes. Additional equipment, such as a suction machine, oxygen tank, intravenous standard, and isolation cart, were kept in the back of the room and placed in the "patient's room" as the scene called for. Props utilized during the performance were arranged according to scenes on a table in the back of the room, and, therefore, were readily available to the cast. The assistant from Educational Services was available to make set changes and to check that each member of the cast had his or her props before making an entrance.

A diagram of each scene with props was kept on the prop table as a reference for the assistant and cast (see Appendix C). The audience--new graduate nurses--sat in cushioned chairs arranged in rows as in a theater. During work-group sessions, chairs were rearranged to form a circle to facilitate better discussion and group interaction. Chairs were again arranged in rows when the drama restarted. During the drama, cast participants not actively involved sat in a separate section at the back of the room. Although the distance between audience and cast could not be controlled because of limited space, the cast were not in close proximity to the audience, nor was there communication between the two during the drama. Since the conference room had two entrances, the door opening onto the stage remained locked to prevent accidental stage walk-ons. Cast members arriving and leaving while the drama was in progress did so by the rear door. Since many of the cast participants were working on their unit as well as participating in the drama, this could not be avoided.

Each of the fourteen scenes was introduced by a synopsis of the scene (see Appendix D). The new graduates did not receive a script to follow or an outline of the content. In this way, the audience's attention was directed to the drama not on what was to occur. Therefore, the synopsis oriented the audience as to time in the patient's hospitalization and briefly what was happening. Also, the scene introductions allowed time for set changes.

Data Collection Instruments

In order to measure the effectiveness of the pilot orientation

program, three factors were considered: what the new graduate learned, how each individual perceived the program, and how staff nurses perceived the new graduates' performance in the clinical area. To determine what each orientee had learned from the orientation program, three cognitive tests were developed--an entry-level test and two post-tests (see Appendices E, F, G). Each test was similar in content. As stated earlier, the specific content of the orientation program was selected according to needs expressed by prior new graduates oriented at the hospital, and job responsibilities noted by the researcher as inadequately performed on many nursing units. In addition, routines specific to the study institution were included in the program content. Since the overall purpose of the tests was to measure recall, test items encompassed the same content areas as the orientation program. All three tests were primarily focused, however, on the areas of inexperience as expressed by new graduates and the job responsibilities of a team leader at the study institution, rather than on specific routines. For example, several test questions each were written on oxygen therapy, isolation procedure, cardio-pulmonary resuscitation, suctioning technique, and chest assessment. Whereas, not more than one test question was written on each of the routines specific to the study hospital. Less emphasis was placed on specific routines, such as admission, pre-operative preparation, patient interview, and charting, since they were frequently performed in the clinical area. However, since oxygen therapy, suctioning, and chest assessment were not routinely performed on the clinical units, and since the study institution was progressing toward care of the more acutely ill patient, particular emphasis was placed on these areas in each of the

tests. Also included in each of the tests were recall items on the administration of a medication or a narcotic, and the recognition of proper body mechanics. Each of these was a problem area at the study institution. Question design was based on the objectives of the orientation program (see Appendix H). For instance, whether the new graduate was to simply "recognize" a procedure or principle or to "evaluate" the significance of specific findings in a given situation was delineated in the objectives. The objectives were then divided into content components and behavior components, based on Bloom's Taxonomy of Educational Objectives. Thus, the level of cognitive domain could be delineated for each test item in each of the three tests administered. The breakdown of the specific levels of the cognitive domain, as well as the number of questions in each category, has been summarized in Appendix I, Table A. As exemplified in Appendix I, Table A, the entry-level test focused on the assumed knowledge of the new graduate nurse. Questions were directed to the recognition and recall of terminology, criteria, methodology, and principles. Routines specific to the study institution were not included in the entry-level test. The first post-test, however, in addition to the 28 questions testing the recall of knowledge, also contained five questions directed toward the application of knowledge. The second post-test, which consisted of twenty-five questions, contained nine test items developed to measure the application of knowledge. Test questions on oxygen therapy, for example, were directed toward measuring knowledge of criteria and principles in the entry-level test. However, the first post-test had one question designed to measure criteria, but two items which required the application of oxygen therapy in a given situation. The

second post-test focused on the application of oxygen therapy. Similar situations of higher cognitive domain in the post-tests occurred in test items on isolation procedure and chest assessment. Other content components, such as charting and cardio-pulmonary resuscitation, although the level of cognitive domain remained the same for the entry-level test and the first post-test, were devised to measure application in the second post-test. Patient assessment skills, which were not measured in the entry-level test, were tested at the application level in both post-tests. Questions pertaining to suctioning technique and procedure remained at basically the same level of measuring recall with two items on the second post-test on the application of knowledge. Subject matter, such as admission, patient interview, pre-operative preparation, administration of a medication or narcotic, and body mechanics, was directed toward similar levels on the cognitive domain. This latter group by nature demanded the listing of criteria or steps in a procedure, with the exception of body mechanics which could only be tested by the recognition of a principle.

The second factor in determining the effectiveness of the pilot orientation program was each new graduate's perception of the program. To test this "perception" an evaluation of the orientation program was developed (see Appendix J). The pilot orientation program was an innovative approach to the orientation of new graduate nurses. Therefore, an innovative technique of evaluating the program was selected--the semantic differential (Osgood, Suci, Tannenbaum, 1975). The semantic differential, unlike the Likert-type scale, gave a wider variety of possible responses. Instead of one five- or seven-point rating scale from which

an individual could respond, the semantic differential had a rating scale of several bipolar adjective pairs from which to respond to a single concept. In this way, varying responses could be elicited. For example, if only the adjective pair good-bad was utilized in a rating scale for several questions in an evaluation, the evaluator might have a tendency to rate each question in the same manner--extremely good, extremely bad, neutral (Kerlinger, 1973). However, when several adjective pairs are utilized, particularly adjectives such as sweet-sour, tasty-distasteful, hot-cold, a wider range of responses is possible. This wider range of responses, which occurs with the semantic differential, was referred to by Osgood et al. (1975) as the "semantic space." Instead of one dimension of a concept being exemplified, as in the Likert-type scale, many dimensions of the concept are defined. The purpose of the "Evaluation of the Orientation Program" was to measure the new graduate nurses' attitudes toward concepts specifically related to the three-day orientation program. Since the semantic differential was found to be an excellent means of measuring attitudes, in addition to producing a wider range of responses, it was selected as the means by which the program was evaluated (Osgood, Suci, Tannenbaum, 1975). Six concepts, specifically related to the pilot program, were chosen to be evaluated--Instructional Method, My Involvement, Subject Matter, Cast Participants, What I Learned, and Discussion Sessions (see Appendix J). Since the pilot orientation program was designed to measure the effectiveness of a new innovative approach to orientation, the concepts were selected in accordance with the methodology used. For example, in a class or course of study, one would measure attitudes toward the content, instructor,

learning, and possibly, participation. However, in the instance of the pilot orientation program, attitudes toward the approach or method utilized had to also be considered. The inclusion of both "learning" concepts (Subject Matter, What I Learned, and My Involvement) and "methodology" concepts (Instructional Method, Cast Participants, and Discussion Sessions) was essential in delineating specific problem areas or inadequacies in the orientation program. For instance, the orientee might respond very positively to the "Instructional Method" and "Cast Participants," but very negatively to "What I Learned" and "My Involvement." A speculative interpretation might be that he or she enjoyed the program, but was not involved enough to have learned. The terminology utilized for the concepts, such as "Subject Matter," "Instructional Method," and "Cast Participants," were chosen as being familiar to all of the new graduates. In addition to being words of familiarity, the phrases "What I Learned" and "My Involvement" were also more personally related to each individual's perception of learning and participation. The selection of the adjective pairs or scales in the "Evaluation of the Orientation Program" was based on three factors--Evaluative, Potency, and Activity. Through research, Osgood et al. (1975) found that certain adjective pairs, like good-bad, happy-sad, and large-small, fell into clusters. Adjectives that were "evaluative" in nature, such as good-bad and valuable-worthless, made up the largest and most important cluster. Two other common and important clusters or factors were adjectives that exemplified strength or "potency," and adjectives that expressed "activity." Other factors had been researched and were available. However, since the Evaluative, Potency, and Activity factors were the three most

dominant factors, adjective pairs measuring these factors were selected for the "Evaluation of the Orientation Program" (Bloom et al., 1971; Kerlinger, 1973; and Osgood et al., 1975). Each bipolar adjective pair measured one, and occasionally two, of these three basic factors. Osgood et al. (1975) through extensive investigations had identified the "factor loadings" of fifty major adjective pairs. For example, good-bad and sweet-sour had high factor loadings on the Evaluative factor. Since these adjective pairs or scales had very low or no loading on the Potency and Activity factors, they were "purely" evaluative. The importance of factor loading became apparent when selecting bipolar adjective pairs or scales. Scales were selected so as to be maximally loaded on one factor, such as the Evaluative, and minimally on the others (see Appendix K). In this way, the new graduate was provided "with a balanced space which he might actually use as he saw fit; if he made more discriminate use of the evaluative factor relative to others this would show up in his data . . . , but he was not forced by the sample of scales to do this" (Osgood, Suci, Tannenbaum, 1975, p. 78). Osgood et al. (1975) delineated three criteria to be used in the selection of adjective pairs or scales--"factorial composition, relevance to the concepts being judged, and semantic stability" (p. 78). Factorial composition referred to the selection of scales, usually three, to represent each factor. Although each of the three factors were represented in the pilot study, the scales were not equally distributed between each factor (see Appendix K). The evaluation of the pilot program measured the attitudes of the new graduate toward the orientation program. Osgood et al. (1975) gave an exception to their criterion of factorial composition when measuring attitudes. In theory,

they supported the use of the Evaluative factor alone in this instance; however, in practice they usually "included a considerable number of scales representing other factors--this was done both to obscure somewhat the purpose of the measurement and to provide additional information on the meaning of the concept as a whole, aside from the attitude toward it" (Osgood, Suci, Tannenbaum, 1975, p. 78). In the evaluation of the program, for example, one graduate nurse might rate the "Instructional Method" as being very valuable, but passive and slow. On the other hand, however, another graduate might rate the same concept as being very valuable, but active and fast. Obviously, "valuable" would have two very distinct meanings to each individual. Therefore, since additional information could be gained, scales representative of both the Potency and Activity factors were also included as tools in the evaluation. The distribution of scales was: Evaluative-6, Potency-3, and Activity-3 (see Appendix K). The Evaluative factor remained the most highly represented since attitudes were being measured. As stated earlier, the second criterion in the selection of scales was "relevance to the concepts being judged." The twelve adjective pairs chosen for the evaluation of the program were selected on the basis of two primary factors: maximal loading of each factor and relevancy to the concept. Many of the scales were obviously relevant to the concept, such as good-bad, valuable-worthless, strong-weak, clear-hazy, fast-slow, active-passive, and smooth-rough. However, other scales, such as sweet-sour, hot-cold, heavy-light, and tasty-distasteful, were not so apparently relevant to the concepts. These scales were more subtle in their meaning or interpretation, and, therefore, would be beneficial in producing more

accurate data (Osgood et al., 1975). The third criterion in the selection of scales was their "semantic stability for the concepts and subjects in a particular study." This was the weakest of the criteria delineated by Osgood et al. (1975). "Semantic stability" referred to physical properties of adjective pairs or concepts, such as large-small when describing the concept "Boulder" or "Ant." In the above situation, the criterion of "semantic stability" would be very important. However, this criterion required more research when dealing with scales and concepts without physical characteristics (Osgood et al., 1975). Nevertheless, the scales selected for the evaluation did not violate this criterion. The arrangement of concepts and scales within the "Evaluation of the Orientation Program" was designed to avoid set responses and "to prevent the formation of position preferences" (Osgood et al., 1975, p. 82). For example, instead of listing the concepts in a logical, related fashion, such as Subject Matter, Instructional Method, and Cast Participants, the sequential order of the concepts was varied--Instructional Method, My Involvement, Subject Matter, Cast Participants, etc. In addition, the polarity direction of adjective pairs representing the same factor was alternated. When Evaluative scales were used, for instance, they were listed as good-bad then as sour-sweet, rather than good-bad and sweet-sour. To further avoid set responses and position preferences, the order of factors represented were rotated. Therefore, instead of grouping all the Evaluative factors together, then the Potency and Activity factors, scales representing each factor were mixed (see Appendix J).

The third and final factor in determining the effectiveness of the

pilot orientation program was the staff nurses' perception of each new graduate's performance in the clinical area. To measure the staff nurses' perception, an interview guide was developed (see Appendix L). Items in the interview guide were designed to delineate three areas: general information concerning the performance of the new graduate, specific information regarding the graduate's competency in performing certain procedures, and a comparison of the present group of new graduates with past graduates oriented to the clinical area. To obtain general information about the new graduate's performance, open-end questions were initially asked. These questions allowed for more flexibility, a chance to clarify misunderstandings and to detect ambiguity (Kerlinger, 1973). Personality conflicts and the general attitude of the staff nurse toward the new graduate might also be ascertained. In addition, the initial open-end questions gave a baseline of information to compare with answers to levels of competency in the performance of specific procedures. In order to delineate more specific information regarding the new graduate's performance in the clinical area, a numerical rating scale was utilized. Even though rating scales have the intrinsic defect of constant or biased error, as exemplified by the "halo effect," the error of severity, the error of leniency, and the error of central tendency, it was selected for the interview guide because it required less time to administer than other methods, was easy for the staff nurse to use, and was more easily understood by staff nurses (Kerlinger, 1973). The rating scale included six possible choices--5 - Excellent, 4 - Very good, 3 - Good or average, 2 - Fair, 1 - Poor, 0 - Non-applicable. Each category was specifically defined

with examples and percentages of levels of competency. In this way, meanings of terms, such as "Excellent" or "Fair," would not be subject to individual interpretation. The "0" rating, in addition to procedures which were non-applicable to that unit, was also applied to procedures which had not been directly observed by the staff nurses interviewed. Since the purpose of the interview was to ascertain the effectiveness of the pilot orientation program, the list of nursing procedures and team leading responsibilities which each staff nurse rated from one of six possible choices, was based on the content of the orientation program. Each of these nineteen areas had been covered during the three-day program--either in the drama, in a discussion or workshop session, or both. The third area delineated in the interview guide was the comparison of present new graduates orienting to the clinical area with prior graduates. Since the comparison could only be made if the staff nurse had previously oriented new graduates, this data had to be obtained initially. Whether the prior new graduate or graduates had been from the same school of nursing could be pertinent when making the comparison. For example, the difference in orienting the present new graduate in comparison to others might be an educational difference, rather than the effect of the orientation program. However, if the new graduates were from the same school of nursing and the present new graduate was easier to orient to the clinical area, one possibility might be the effectiveness of the orientation program. In addition to the information obtained in the interview, daily evaluations were written on each orientee throughout their clinical orientation. These evaluation forms were returned to the Educational Services Department at the study institution each week.

Therefore, a comparison between the responses to the interview items and the written evaluations of each new graduate could be made. The interview was conducted three and/or four weeks after the orientation program. The time schedule for interviewing was dependent upon the new graduate's clinical unit and shift assignment. For example, if a new graduate was assigned to a specific unit and working the day shift (7:00-3:30 p.m.) the staff nurse orienting that new graduate would be interviewed at the end of the fourth week. The same situation would occur when a new graduate was oriented on the day shift for four weeks and then rotated to the evening (3:00-11:30 p.m.) or night (11:00-7:30 a.m.) shift. However, if the new graduate oriented on the day shift for three weeks and then rotated to her assigned shift of evenings or nights, the staff nurse who supervised her orientation on days was interviewed, and the evening or night staff nurse was also interviewed at the end of the first week of that shift or the fourth week of orientation. The study institution also had "float" nurses, who were assigned to a variety of units as the need dictated. New graduates in a "float" position were oriented to a different unit each week of clinical orientation. Therefore, one staff nurse orienting a "float" new graduate during the third week was interviewed, and another staff nurse was interviewed for the fourth week. The interview was conducted with the staff nurse directly supervising the new graduate's orientation in a conference room or office to diminish interruptions and provide confidentiality. Instructions were given as delineated in the "Interview Guide for New Graduates" (see Appendix L). Each question or item was read to the staff nurse interviewed. Initially, the first section was tape-recorded. However, after several

interviews, this was determined to be unnecessary since the information supplied was not that involved or detailed. When the rating scale was utilized, the staff nurse was allowed time to read the scales and ask questions. In addition, the staff nurse kept a copy of the "Rating Scale" definitions as a reference throughout the interview (see Appendix L).

In summary, the pilot orientation program encompassed three eight-hour days of dramatizations, and discussion and workshop sessions. The morning of the first day was set aside for an introduction to the orientation program, administration of the entry-level test, and a general introduction to the hospital and nursing service department. At the conclusion of the three-day orientation program, each new graduate nurse completed an "Evaluation of the Orientation Program" and the first post-test. One month following the pilot orientation program, the second post-test was administered to each graduate nurse. As delineated earlier, staff nurses supervising the new graduate's clinical orientation were interviewed after the third and/or fourth week of orientation, depending upon the unit and shift assignment.

CHAPTER III

ANALYSIS OF THE DATA

The population tested in the pilot orientation program consisted of twenty-one new graduate nurses hired in the months of May and June. The May group was comprised of four new graduates, all from the same baccalaureate nursing school. The seventeen new graduates in the June group had various educational backgrounds. Eight persons were graduates of baccalaureate degree programs; seven were diploma degree graduates; and, two were graduates of an associate degree program. All four new graduates in the May group had had both student and Nursing Assistant experience at the study institution. However, the June group's previous experience at the study institution was minimal. One person had had two months of her student clinical rotation and two other new graduates had worked as Nursing Assistants at the study hospital. The remaining fourteen nurses in the June group had had no previous experience at the study institution. However, eleven of these fourteen new graduates had worked as Nursing Assistants in other hospitals in the metropolitan area. The average age for the May group was 29 years of age, ranging from 21 to 40 years. The June group of new graduates' ages ranged from 21-32 years with an average of 22 years of age. Therefore, the average age for the combined group was 25.5 years. The May group was divided evenly into two male and two female new graduate nurses. The entire June group was

comprised of female nurses. Since both the May and June groups received the same orientation program and since the May group was too small to give accurate statistical information alone, the groups were combined to give more reliable statistical data.

As stated earlier, three factors were considered in measuring the effectiveness of the orientation program: what the new graduate learned, how each individual perceived the program, and how staff nurses perceived the new graduates' performance in the clinical area. Each of these factors will be considered individually in the analysis of the data.

Cognitive Test

The first factor was determined by the development and administration of three cognitive tests--an entry-level test and two post-tests. As presented in Table 1, the mean and median scores on each test were similar for both the May (first group) and June (second group) populations. The standard deviations showed the highest variance, particularly on the entry-level test and first post-test. However, the difference in group size could account for the variance in spread of the standard deviation. Scores were initially separated for both groups to delineate any major differences. However, further discussion of the results of the study will be in reference to the combined group scores.

In order to demonstrate the effectiveness of the tests, the tests were initially analyzed individually. The item difficulty and item discrimination were the indices of measurement used to illustrate the effectiveness of each test. The item difficulty indicated the percentage of persons answering a specific test item correctly. To produce

Table 1
 Mean, Median, and Standard Deviation
 Scores on Three Cognitive Tests

		Entry-Level Test	First Post-Test	Second Post-Test
First Group ^a (May)	<u>M</u>	60.75	83.75	64.00
	<u>Mdn</u>	61.50	82.25	60.50
	<u>SD</u>	4.47	4.37	8.23
Second Group ^b (June)	<u>M</u>	61.65	81.32	61.71
	<u>Mdn</u>	59.00	84.00	62.00
	<u>SD</u>	10.44	7.18	9.87
Combined ^c	<u>M</u>	61.48	81.79	62.14
	<u>Mdn</u>	60.00	83.50	61.00
	<u>SD</u>	9.59	6.80	9.62

^aGroup consisted of 4 new graduates

^bGroup consisted of 17 new graduates

^cBoth groups combined = 21 new graduates

a good spread in results, Bloom et al. (1971) recommend that the average difficulty of items should be around 50 to 60 percent and vary in difficulty from about 20 to 80 percent. This "spread in results" is based upon the categorization of each student in terms of the amount of his or her learning in relation to other students. The students should be spread out so that there would be a few in the top category, more in a second group, a larger number that are average and fewer in the lower categories. Therefore, if all or nearly all, or none or almost none of the students passed a particular test question, the item would do nothing to differentiate or spread the students out. Item discrimination is an index comparing the percentage of examinees above the median with the percentage of examinees below the median who pass the same item. The item discriminates positively if more students above the median answer the item correctly than do those below the median. In contrast, if more students below the median pass an item than those above the median, the item is discriminating negatively or is working in the opposite direction from the total test. For an item to be significantly positive or negative, however, Bloom et al. (1971) specify that there must be a twenty percent difference. For example, 80 percent of the top group versus 60 percent of the lower group to be significantly positive, and 30 percent of the top group versus 50 percent of the lower to be significantly negative. An item is said not to discriminate if all persons answer the question correctly or incorrectly, or if the percentage of persons above and below the median answering the item correctly is the same or nearly the same, such as 90/80 or 60/70. Therefore, to spread the students' scores, the discrimination index of all items should be

positive (the better students should pass the item); and the item difficulty should vary from 20 to 80 percent, with an average of around 50 to 60 percent (Bloom et al., 1971).

The item difficulty index of the entry-level test showed that six of the sixteen objective questions were not within the 20-80 percent acceptable range for item difficulty (see Appendix M, Table C). Question number 5 on cardiopulmonary resuscitation and number 6 on chest assessment were below 20 percent in difficulty. However, item 9, covering the principles of body mechanics; number 10, asking about the criteria for a specific type of isolation; and, number 14 and 16, requesting the recognition of suctioning principles were all nearly 100 percent. The average item difficulty index on the entry-level test was 61 percent, which was close to the 50-60 percent desired average as specified by Bloom et al. (1971). The majority of test items did discriminate positively on the combined scores with the exception of one negative discriminator and five items which did not discriminate significantly (see Appendix M, Table C). The one negative discriminator was number 12, asking whether it was true or false that the "endotracheal cuff should be deflated for five minutes every four hours."

The first post-test proved to have the majority of test items above 80 percent in item difficulty (see Appendix N, Table D). In fact, all but seven items were between 86-100 percent in difficulty, with an average test difficulty of 88 percent. Since most of the twenty-five objective questions had low item difficulty (above 80 percent), many items on the combined scores revealed no significant discriminating power (see Appendix N, Table D). In addition, there were no negative

discriminators in the test. Questions number 3 on cardiopulmonary resuscitation, number 10 on isolation and items 21 through 25 on the knowledge of chest assessment terminology were the only items which demonstrated significant discrimination and each of these was positive. Five of these seven items with significant positive discriminating power were also within the 20-80 percent range of item difficulty.

The item difficulty index on the second post-test identified more items to be below 50 percent in difficulty than on the first post-test (see Appendix O, Table E). Five questions were below 50 percent in item difficulty, but remained within the 20-80 percent range. Thirteen of the twenty objective test questions were within 20-80 percent in item difficulty. The average item difficulty was 69 percent, slightly higher than the desired 50-60 percent average. One-half of the items were significantly positive; the other half of the test questions did not discriminate (see Appendix O, Table E). Most of these non-discriminating items were a result of the percentage of persons above and below the median answering the question correctly was nearly the same, not because all persons answered the question correctly or incorrectly. With the exception of item 6 on pre-operative preparation and item 18 on chest assessment, the items which significantly discriminated positively were within the 20-80 percent range of item difficulty. Both these items, 6 and 18, were above 80 percent.

Table 2 lists six content areas with their specific test items, level of cognitive domain and item difficulty for each of the three examinations. The table compares a test item's percentage of item difficulty on the entry-level test to a question on the same level of

Table 2 - Continued

Content Area	Entry-Level Test			First Post-Test			Second Post-Test		
	Domain	Item #	Item Difficulty	Domain	Item #	Item Difficulty	Domain	Item #	Item Difficulty
4. Isolation	K. of Criteria	#10	95% ---->	K. of Criteria	#9	95%			
				K. of Criteria	#10	62%	A. of Knowledge	#4	62%
5. Chest Assessment	K. of Terminology	#6	14% ---->	K. of Terminology	#11	90% ---->	K. of Terminology	#8	57%
	K. of Terminology	#7	48% ---->	K. of Terminology	#22	67% ---->	K. of Terminology	#18	86%
	K. of Terminology	#8	52% ---->	K. of Terminology	#20	100% ---->	K. of Terminology	#20	95%
				K. of Terminology	#21	86% ---->	K. of Terminology	#19	76%
			K. of Terminology	#24	81% ---->	K. of Terminology	#17	76%	
			K. of Terminology	#25	71% ---->	K. of Terminology	#16	76%	
			K. of Terminology	#23	90%		A. of Knowledge	#5	62%
6. Cardio-	K. of Principles	#4	62% ---->	K. of Principles	#1	90%	K. of Principles	#2	24%
Pulmonary	K. of Methodology	#5	0% ---->	K. of Methodology	#3	57%	A. of Knowledge	#1	67%
Resuscitation	K. of Methodology	#11	76% ---->	K. of Methodology	#2	100%	A. of Knowledge	#3	33%

Note: K = Knowledge. A = Application.

cognitive domain on the first and second post-tests. When a test item on the first or second post-test measures a different cognitive domain or a new situation is given, there is not an interconnecting arrow between test items. For example, item number 3 on the entry-level test measured the person's knowledge of criteria in regard to oxygen therapy. The percentage of item difficulty was 33 percent. A similar content question measuring the same cognitive domain on the first post-test was item number 6 at 81 percent item difficulty. Both of these items, number 3 on the entry-level test and number 6 on the first post-test are, therefore, interconnected by an arrow as displayed in Table 2. Two additional items, numbers 7 and 8, on the first post-test were asked on oxygen therapy, but at a higher level of cognitive domain--the application of knowledge to a new concrete situation. Item 7 demonstrated 62 percent item difficulty and item 8 was at 95 percent. On the second post-test, however, a new situation was presented on oxygen therapy in item number 5 measuring the application of knowledge. Even though the same level of cognitive domain was displayed on the first and second post-tests, the application of knowledge, a new and different situation was given on the second post-test. Therefore, items 7 and 8 on the first post-test were not interconnected with item 5 on the second post-test.

The content area on suctioning had more comparable items on each of the three tests. Most items measured knowledge of principles. Item number 12 on the entry-level test was 43 percent in item difficulty. A similar item on the first post-test, number 15, was 95 percent; and, on the second post test item 12, similar to both previous questions, was 67 percent. Items 13 and 14 on suctioning in the entry-level test and

items 18 and 17 on the first post-test were low in item difficulty (between 70-100 percent). However, similar items, numbers 15 and 13, on the second post-test were 48 percent in item difficulty.

In every instance, the difficulty of an item on the first post-test was lower (an increase in the percentage value) than a similar item on the entry-level test. However, with the exception of item 9 and 10 on suctioning, item 7 on body mechanics, item 4 on isolation and items 18 and 16 on chest assessment, the difficulty of test items on the second post-test was greater (decreased percentage value) than a similar item measuring the same cognitive domain on the first post-test. Items 9 and 7 mentioned above, remained at the same level of item difficulty. Even though the difficulty of an item increased from the first post-test to the second post-test, the item difficulty index was lower (increase in the percentage value) for the majority of items on the second post-test when compared directly with the entry-level test. Items 15 and 13 on suctioning in the second post-test were the only exceptions. On the entry-level test, items 13 and 14 demonstrated an item difficulty of 71 and 100 percent respectively. However, similar items, 15 and 13, on the second post-test increased to 48 percent in item difficulty.

Evaluation of the Program

The second factor in determining the effectiveness of the orientation program was each orientee's perception of the program. To measure the new graduate's perception, an evaluation was developed and administered at the conclusion of the three-day orientation program. The semantic differential was used as the format of the evaluation to provide

a wider variety of possible responses (Osgood et al., 1975). Six concepts were rated by each orientee--Concept A-Instructional Method; Concept B-My Involvement; Concept C-Subject Matter; Concept D-Cast Participants; Concept E-What I Learned; and, Concept F-Discussion Sessions. The rating scale consisted of the same twelve bipolar adjective pairs for each concept (see Appendix J). Therefore, each concept was rated twelve times by each individual new graduate. The scores were based on the numbers 1 through 7 assigned as follows:

Good 7 : 6 : 5 : 4 : 3 : 2 : 1 Bad
 Sour 1 : 2 : 3 : 4 : 5 : 6 : 7 Sweet

Therefore, if a new graduate checked the adjective pair good-bad between the first and second sets of dots at the left, a 6 was assigned. When the polarity of the adjectives was reversed, as with sour-sweet, the assignment of numbers was also reversed.

The scores of the twenty-one new graduates were analyzed on the Wang Computer, number 2200. Data analyzed consisted of the following: 1) the scale score of each concept for each individual (the mean of the 12 adjective pairs); 2) factor scores of each concept for each orientee (the means of the evaluative, potency, and activity factors computed separately); 3) group mean scores for the scale scores and three factor scores; 4) a distance matrix for each new graduate.

The overall results of the evaluation demonstrated a positive attitude toward the orientation program. The group means of all bipolar adjective pairs on all concepts, listed under "Scale" in Table 3, ranged from 5.30 - 5.88, only a 0.58 difference between concept ratings. The evaluative, potency, and activity factor scores for the group also showed

Table 3
 Group Means for Scale Score and
 Three Factor Scores for All Concepts

Concept	Scale	Factor Scores		
		Evaluative (6)	Potency (3)	Activity (3)
A	5.70	6.11	5.23	5.36
B	5.30	5.61	4.90	5.06
C	5.62	5.97	5.19	5.36
D	5.88	6.12	5.84	5.44
E	5.63	5.96	5.33	5.28
F	5.30	5.60	5.12	4.90

Note: Numbers in () indicate number of adjective pairs representing each factor.

little variance between concepts. The evaluative factor, consisting of six adjective pairs or scales, exhibited the highest group means between 5.60 - 6.12 for all concepts with a difference of 0.52. The potency and activity factors, each of which had three adjective pairs, had slightly lower group ranges of 4.90 - 5.84 and 4.90 - 5.44 respectively. However, the variance between concepts remained low. Even though the difference was slight, Concept B-My Involvement and Concept F-Discussion Sessions received the lowest ratings and, therefore, had the lowest group means on scale and factor scores.

The individual scale scores between concepts varied more than the group mean scores. However, the scores never differed by more than two points. When the scale scores for each orientee were rounded to the nearest whole number, the range of individual scores between concepts were as follows:

6-7 - 1 orientee
5-7 - 5 orientees
6 - 1 orientee
5 - 1 orientee
5-6 - 7 orientees
4-6 - 6 orientees

As shown, the majority of orientees (new graduates) had scale scores of 5.0 or above for all the concepts. Although the potency and activity factors had lower group means, a trend toward higher scores on any one factor was not discernible. The factor ratings varied between and within individual scores.

The form of the semantic differential as displayed in Appendix J,

Evaluation of the Orientation Program, was identical for each new graduate. The twelve adjective pairs or scales were listed in the same order and with the same polarity direction for each concept. In addition, the order of factors represented were rotated initially and remained constant for each concept. This form of the semantic differential was identified by Osgood et al. (1975) as being both effective in preventing the "halo" effect and advantageous in providing a "greater constancy of meaning in the thing being judged and of being much more satisfying to the subjects of the experiment" (p. 82). However, the researcher did review each new graduate's evaluation for possible set responses or the "halo" effect. With the exception of one individual, there were both varying responses within a concept and between concepts. One orientee did mark a seven response on all adjective scales on two concepts. However, these two concepts were not consecutive and other concepts were rated entirely different, particularly Concept F-Discussion Sessions which had a scale score of 4.66.

A distance matrix (D) was computed for each individual new graduate to determine relationships between concepts in the semantic space. When two concepts are close together in semantic space, having a small D between the two concepts, the concepts are alike in meaning for the individual making the judgments. Conversely, if two concepts are separated in semantic space, having a large D value, the concepts differ in meaning (Kerlinger, 1973). Therefore, the smaller the D between two concepts, the closer they are in meaning. The inverse is true of the larger D values. A distance matrix then is the distance between any two concepts. The calculation of D matrices provides a method of clustering concepts--

grouping two or more concepts which are alike in meaning. However, since the six concepts used in the Evaluation of the Orientation Program had similar ratings as shown by the group means in Table 3, it was difficult to form definitive clusters from the D matrices. Appendix P presents the clusters which were delineated from each orientee's D matrix. As the Appendix exhibits, there is no set pattern of clusters between individuals. Nine orientees, in fact, only had one discernible cluster, some of these containing all the concepts. Orientees numbers 3, 4, 8, 9, and 12 had a concept which was repeated in another cluster. For example, orientee number 3 had Concepts A, B, C, E, and F forming one cluster and Concept F and D as another. Concept F was related to all the concepts, but Concept D was only related to Concept F. The last column shows that the majority of orientees had one or more concepts that did not cluster with any other concept. Even though Concept B-My Involvement, Concept D-Cast Participants, and Concept F-Discussion Sessions were the most common concepts to not form a cluster with another concept, there were a greater number of instances when these same concepts did form a cluster. Since the results of the D matrices were so diverse, further analysis of the group data is not warranted. The concepts are too interconnected to display a definitive trend of clustering or relationship between concepts.

Interview of Staff Nurses

The third factor in determining the effectiveness of the orientation program was the staff nurses' perception of each new graduate's performance in the clinical area. To measure the staff nurses' perception, an

interview guide was developed (see Appendix L).

As stated earlier, the interview guide was designed to provide general information concerning the performance of the new graduate, specific information regarding the graduate's competency in performing certain procedures and team leading responsibilities, and a comparison of the present group of new graduates with past graduates oriented to the same clinical area. General information in the interview was obtained in the open-ended questions 1 and 2, and question 3 utilizing the summated rating scale (Likert-type scale). Data pertaining to specific procedures and team leading responsibilities was gathered in question 6 using the summated rating scale. The comparison of the present new graduates with past new graduates oriented to the clinical area was ascertained in question 5 of the interview. The data from the interviews is presented in Appendix Q. For ease of comparison, however, Appendix Q is divided into two parts. The first part or page of the Appendix lists the data obtained from questions 3 and 6 utilizing the summated rating scale. In this way a comparison could be made of the general rating of the new graduate's performance (question 3) with the ratings of his or her competency in performing specific procedures (question 6). The second part of Appendix Q summarizes the data from open-ended questions 1, 2, and 5. Responses to question 4, "Do you feel the orientation program was helpful in preparing X for the unit?" are also included in this latter section of Appendix Q.

The staff nurse or Unit Supervisor working directly with the new graduate was interviewed three and/or four weeks after the orientation program as specified in the Methodology chapter on Data Collection

Instruments. Ten out of twenty-one of the orientees had two staff nurses interviewed--one staff nurse after the third week and another staff nurse after the fourth week of the new graduate's clinical orientation. When two interviews were conducted, as in these ten instances, the scores on the summated rating scale were summed and averaged to give a combined score, and the data on the open-ended question was combined from both interviews. These ten orientees, who had combined scores or data, are designated by the word "combined" in Column 1 of both sections of Appendix Q.

The first part or page of Appendix Q lists the responses to questions 3 and 6 utilizing the summated rating scale. The staff nurses interviewed had a choice of one of six responses: 5-Excellent, 4-Very good, 3-Good or Average, 2-Fair, 1-Poor, 0-Non-applicable. The 0 response was designed for question 6. However, in addition to procedures which were non-applicable to a specific nursing unit, a 0 response was also used when the new graduate had not performed the procedure or had not been directly observed by the staff nurse. In Appendix Q, the 0 responses are replaced by dashes (-) in order to pinpoint them more readily. Column 2 of this section lists the responses to question 3, "Using the rating scale as your guide, how would you rate X's general performance on the unit?" The range of responses was 3.0 to 4.5 with a group mean score of 3.71. Only six orientees had their general performance rated at 3.0--good or average. The majority of orientees were rated as performing very well (4.0). The remaining columns encompass item number 6 on the interview guide: "I will read you a list of nursing procedures and team leading responsibilities. Referring to the

rating scale given to you, please respond by rating X's competency in each area." All 19 (A through S) nursing procedures and team leading responsibilities had been dramatized or discussed in the three-day orientation program (see Appendix L, Interview Guide). As shown in Appendix Q, there were many 0 responses to item 6. Out of a total of 399 possible responses (19 responses x 21 orientees), 185 responses were 0 (designated by a -). Since nearly half of the responses were 0, average scores for each orientee were computed on the basis of responses only. For example, orientee #1 had eleven responses to question 6 (see Column 22). The sum of the responses was 39.5. Instead of dividing this sum by 19 (total possible responses), which would have given an inaccurate average of 2.08, the sum was divided by 11 (actual total number of responses). Therefore, orientee #1 had an average score of 3.59. The average scores range from 2.82 to 4.46 with a group mean score of 3.60. In comparing the group range and means for general ratings and ratings on specific procedures, the results are almost identical. The range of responses to question 3 was 3.0 - 4.5, which compares identically to the range of 2.82 - 4.46 on question 6. The group mean of 3.71 on question 3 and 3.60 on item 6 are similar. In only two instances did the general rating response vary significantly from the average score on the specific procedural ratings. Orientee #8 had a general rating of 4.0 and an average score on specific procedures of 3.14. Orientee number 15 had a general rating of 4.5 and an average score on specific procedures of 3.38. With both orientees (numbers 8 and 15) there was a difference of one point, a higher rating being given on general performance. Orientee number 8, however, had three low ratings in specific procedures--

H-Development of Nursing Care Plans (2), L-Discharge Planning (1), and P-Chest Assessment (2). In each instance, the staff nurse had insufficient data, having only observed the orientee one time. Therefore, the average score on the specific procedural ratings was diminished. Of the total 214 actual responses to item 6, there were only 11 below 3.0. Ten of these were 2.0 (fair) responses and one 1.0 (poor) response. However, in all but two situations, insufficient data because of only observing the orientee one time was the rationale for the numbers 2 and 10. Orientee number 2 received a two rating in medication administration and orientee number 10 received a two rating in giving taped report. Both orientees had had minimal experience in these areas in their nursing education.

The first part of Appendix Q also delineates the total responses for each procedure. The majority of staff nurses responded to the orientee's competency in patient assessment (F), medication administration (D), the narcotic procedure (E), body mechanics (R), and taped report (I). To a lesser degree, staff nurses responded to competency in pre-operative preparation (C), discharge procedure (M), admission procedure (K), chest assessment (P), and patient interview (A). Procedures, such as cardio-pulmonary resuscitation (S), oxygen therapy (N), suctioning technique (O), isolation (Q), and sterile dressings (G), were non-applicable or the situation never arose on the unit. A large majority of the 0 responses involved such team leading responsibilities as discharge planning (L), team conferences (J), pre-operative teaching (B), and the development of nursing care plans (H). With the exception of nursing care plans, which in most instances the new graduate had not performed as yet, the other

functions of a team leader listed above were considered by staff nurses as not being applicable to their unit. In some situations, such as Intensive Care Unit, Cardiac Recovery Room, Operating Room, and the Intravenous Department, many of these responsibilities were not applicable. However, on most units these team leading responsibilities were applicable even though staff nurses did not consider them as such.

The second part of Appendix Q summarizes the results of the open-ended questions of the interview. As stated previously, when two interviews were conducted, the data was combined and the orientee denoted by the word "combined." General information pertaining to the orientee was requested in questions 1 and 2 as follows: "1. How is X performing on the unit? 2. Are there any problem areas?" The data in Column 2 is almost the exact responses of the staff nurses to these two open-ended questions. Rarely was additional information provided. As the results exemplify, 16 out of 21 orientees were stated as performing very well. Five orientees (numbers 7, 9, 10, 13, 16) were evaluated as performing at an average level. When comparing the data compiled from questions 1 and 2 with the ratings on questions 3 and 6, the results are similar. There were a few variations, however. Orientees number 13, evaluated as performing at an average level in items 1 and 2, was rated at 4.0 (very good). Orientees numbers 2, 3 and 5, all of whom were evaluated as performing very well, were rated 3.0 (good or average) in questions 3 and 6.

The scores on the summated rating scale and the general information obtained in questions 1 and 2 were also compared with the weekly evaluations of each orientee's clinical experience. The weekly evaluations were consistent with the results of the interview. In the instances of

the variation in results between the rating responses and general performance data mentioned above on orientees numbers 13, 2, 3, and 5, the weekly evaluations were consistent with the general performance data obtained in questions 1 and 2.

Column 3 of the second part of the results of the interview lists the responses to question 4, "Do you feel the orientation program was helpful in preparing X for the unit?" There were a total of 31 responses to this question since ten orientees had two staff nurses interviewed.

The responses are as follows:

Very much	-	12
Some	-	6
Very little	-	0
Unknown	-	13

Those staff nurses who had knowledge of the orientation program content responded very positively. However, the staff nurses at times had difficulty in separating the three-day orientation program from the organized, pre-planned clinical orientation. Therefore, these positive responses could be influenced by a positive reaction to the clinical orientation. Most of the staff nurses who responded were not well known by the researcher. These nurses had a basic knowledge of the orientation program content from the orientee's themselves. Three of the six "some" responses were from staff nurses orienting new graduates to critical care units. However, the content of the orientation program did not extend to critical care nursing.

The last column summarizes the data from question 5, comparing the present new graduates with past graduates oriented to the clinical area

(see Appendix L). In eleven instances, the staff nurse had not previously oriented a new graduate. Eight out of twenty staff nurses, who had oriented past new graduates, attributed the difference to a more organized orientation with the present group of new graduates. The remaining staff nurses attributed the differences to the following: previous experience on the unit (4); individual differences (3); type of nursing school (2); lack of continuity with present new graduate (1). Two staff nurses responded that there was no difference in orienting the present new graduate from past new graduates oriented to the unit. In sixteen out of twenty cases the present new graduate was from a different school of nursing. One staff nurse could not recall the school of nursing of the previous new graduate. Only three staff nurses were orienting a new graduate from the same school of nursing as a past graduate. The variables in orienting the new graduate when he or she were from the same school were a more organized orientation program at present (2) and personality differences (1).

Level of Education

In analyzing the data of the pilot orientation program, a final comparison was made between each new graduate's level of education and previous experience, and the results of the cognitive tests and interview (see Appendix R, Table F). The new graduate's evaluation of the program could not be used in this comparison since the evaluation forms were not coded.

Appendix R, Table F illustrates each orientee's level of education as a graduate from a baccalaureate, diploma, or associate degree program

of nursing; previous experience at the study institution, either as a Nursing Assistant (N.A.), student or student-Nursing Assistant (N.A.); other hospital experience only as a Nursing Assistant (N.A.); results on the three cognitive tests; and, general and specific ratings on the interview. The bottom row lists the group mean scores on each of the cognitive tests, and on the general and specific ratings of the interviews, as an aid in making comparisons. When comparing the level of education with the results on the cognitive tests, based on the group mean, there was no significant difference between schools of nursing. The associate degree, diploma, and baccalaureate graduates were equally distributed above and below the mean score. Previous experience at the study institution, whether it was as a student, Nursing Assistant (N.A.) or student-Nursing Assistant (N.A.), did not effect the test results positively. In fact, there were between one and three more persons below the mean than above the mean. Eleven orientees had previous N.A. experience in other hospitals. There was a significant difference between their results and those having previous experience at the study institution on the first and second post-test. Nine of the eleven orientees with N.A. experience in other hospitals had scores above the mean, whereas only three out of the seven orientees with experience at the study institution had scores above the mean. On the second post-test, six of the eleven orientees with experience in other hospitals had scores above the mean, and only two of the group with experience at the study institution had similar scores. New graduates with Nursing Assistant experience in other hospitals were equally divided between baccalaureate and diploma schools of nursing. Those graduates with

student and/or N.A. experience at the study institution were almost entirely from baccalaureate programs of nursing. Only three orientees had had no previous experience at the study institution or other hospitals as Nursing Assistants. All three had scores below the mean on the first post-test. However, on the second post-test two orientees had scores above the mean and one below the mean. Neither level of education or previous experience had any influence on the results on the entry-level test, usually there was a difference of one more person having a score below the mean.

The general ratings and averages of the specific procedural ratings for each orientee were used to compare with level of education, experience, and results on the tests (see Appendix R, Table F). Since the majority of orientees received 3.4 or above on general ratings and on specific procedural ratings, orientees with ratings below 3.4 were used in the comparison. Neither of the two associate degree graduates obtained ratings below 3.4. Only one of the seven diploma graduates, orientee number 9, had a 3.0 general rating and 3.3 average on specific procedures. She had also had experience working as a Nursing Assistant at another hospital. Orienteer number 9 had scores above the mean on all three cognitive tests. Five of twelve baccalaureate graduates had general ratings and specific procedural averages below 3.4. One additional baccalaureate degree graduate had a specific rating average below 3.4. Of these six graduates (orientees numbers 2, 3, 5, 7, 8, and 10), three had had previous experience at the study institution, two had had experience as N.A. at other hospitals, and one had had no previous experience. The results of these six new graduates on the first

post-test were equally distributed above and below the mean. However, only one graduate had a score above the mean on the entry-level test, and only two on the second post-test had scores above the mean. Half of the baccalaureate graduates had ratings below 3.4 on the interview. The six baccalaureate graduates rated below 3.4 on the interview were all from the same school of nursing. The total number of graduates from this school of nursing was eight.

In summary, there was no significant difference in the level of education and the results on the cognitive tests. Previous experience played a part in influencing the results on the first and second post-tests, but only if the experience was at a hospital other than the study institution. The same experience, however, had no effect on the entry-level test scores. Previous experience working as a Nursing Assistant had no significant affect on the interview ratings. However, half of the baccalaureate graduates received ratings below 3.4 on the interview, all of whom were from the same school of nursing.

CHAPTER IV

DISCUSSION

The effectiveness of the orientation program was measured by the results of the cognitive tests, evaluations of the program, and the interviews of staff nurses. The interpretation of these results, and thus, the determination of the degree of effectiveness of the pilot program, are not as clear cut as might have been hoped. However, the lack of a control group from which to make a comparative analysis limits the assertiveness which can be expressed and defined in regards to the effectiveness of the program in and of itself. The results from the three measurement tools will initially be discussed individually. Concluding remarks will encompass some possible interpretations of the relationship between level of education and previous experience, and the results of the study.

Cognitive Tests

The item difficulty and item discrimination index were the criteria used to measure the quality of each of the three cognitive tests. Although the quality and strength of the tests as measurement tools are important, the purpose of each test must also be considered in the interpretation of the results. The results of the data and the significance of the purpose of each test will be discussed separately initially.

The mean and standard deviation of the entry-level test were 61.48

and 9.59, respectively. Seventy-six percent of the scores were within one standard deviation, and 96% were within two standard deviations. Therefore, the entry-level test scores demonstrated a normal bell-shaped curve distribution. The majority of items ranged between 20-80% in item difficulty, with an average item difficulty of 61%. In addition, the item discrimination index indicated nine out of sixteen items to have positive discriminating power. As the above results exemplify, item difficulty of the entry-level tests was at the desired average difficulty between 50-60%. However, all test items should be within 20-80% and discriminate positively (Bloom et al., 1971). Therefore, to increase the strength and to improve the reliability of the entry-level test, those items below 20% and above 80% in item difficulty, and those which do not discriminate positively should logically be deleted from the test (Gronlund, 1968). However, the two-fold purpose of the entry-level test must first be considered. First, the entry-level test was designed to measure the assumed knowledge of the new graduate which could be used for comparison with the two post-tests, and therefore, the level of cognition following the orientation program. Secondly, the entry-level test could provide a baseline for the content of future orientation programs for new graduates in the hospital setting. Those items which did not meet the criterion of item difficulty and/or discriminating power, did however, add to one or both purposes of the test. Item 5 on cardiopulmonary resuscitation and item 6 on chest assessment were below 20% in item difficulty (see Appendix M, Table C). Both items required a very basic knowledge of the subject. However, none of the new graduates were familiar with the methodology used in giving cardiopulmonary

resuscitation, and only three graduates were aware of the use of the bell and diaphragm of the stethoscope. The questions were not difficult; the new graduates had simply not had this exposure in school. The reverse was true on items 9, 10, 14, and 16. Each of these items was 95-100% in difficulty. Apparently, at least with these 21 new graduates, the areas of body mechanics, "skin and wound" isolation, and some of the basic principles of suctioning were very familiar to them. Although some principles of suctioning were readily recalled by the new graduates, others were not. Items 12 and 15 on suctioning also referred to basic principles, and yet the item difficulty on both was 43%. Item 12 was the only negative discriminator--30% above and 60% below the median answering the item correctly. And yet, the knowledge of whether it is true or false that the "endotracheal cuff should be deflated for five minutes every four hours" is imperative in the prevention of tracheal stenosis. The wording of the item was not vague or misleading, one simply had to know the principle. The entry-level test generally had strength and reliability as measured by the item difficulty and item discrimination index. Those items which lessened the value of the test as a measurement tool, added to the purposes of the test as a baseline for comparison and future orientation programs. The areas which were familiar to all or nearly all the new graduates of the study were body mechanics, isolation, and some of the principles of suctioning. Less emphasis might possibly need to be placed on body mechanics and isolation in future programs. However, proper body mechanics is an ever-ending and increasing problem in hospitals. More focus might be placed on the problems encountered with isolation and suctioning in future programs and less emphasis on the

criteria for using isolation and the technique of suctioning. The areas which the new graduates were least familiar with were cardiopulmonary resuscitation, chest assessment, oxygen therapy, and some of the principles of suctioning. These areas were strongly emphasized in the pilot orientation program.

The first post-test had a mean of 81.79 and a standard deviation of 6.80. As in the entry-level test, 76% of the first post-test scores fell within one standard deviation. However, 90%, rather than 96% of the scores were within two standard deviations, a difference of one score. All the scores or 99+% were within three standard deviations. Therefore, the first post-test did not have an exact bell-shaped distribution, but was close to the normal shaped curve. The average item difficulty was 88%, with all but seven items having item difficulty between 96-100%. Seven items discriminated positively; the other 18 items did not discriminate significantly. As the above results display, the first post-test was too easy. However, the purpose of the first post-test was to test immediate recall of the orientation program content. The effectiveness of the pilot program could be measured, in part, by mastery of the content areas. The new graduates did master or recall the content of the orientation program, at least immediately in the first post-test. The areas which were unfamiliar to the new graduates on the entry-level test--cardiopulmonary resuscitation, chest assessment, oxygen therapy, and suctioning--had substantial improvement on the first post-test (see Table 2). As Bloom et al. (1971) pointed out: "For those who view education as being directed toward mastery . . . and who will undertake changes in instruction time and procedures to accomplish this, the two

criteria [item difficulty and item discrimination] are of far less or no import" (p. 67). Since the instructional method or use of a theatrical approach was the key in the present study, mastery of the content areas was imperative in supporting its value in orienting new graduates. The first post-test did illustrate the immediate benefit of the program. The earlier statement that the first post-test was too easy is questionable at this point. The criteria of item difficulty and item discrimination are possibly, as Bloom et al. (1971) pointed out, of far less import in this situation. The first post-test contained many more test items than the entry-level test. And yet the mean was higher, the item difficulty lower, and most of the items did not discriminate. Possibly the orientation program was effective in stimulating the new graduates to listen and learn.

The second post-test had a mean and standard deviation of 62.14 and 9.62. Seventy-six percent of the scores were within one standard deviation and 96% were within two standard deviations of the mean. Therefore, the second post-test had a normal bell-shaped curve distribution. The average item difficulty was close to the desired average of difficulty at 69% (Bloom et al., 1971). Thirteen out of 20 items were within the range of 20-80% in item difficulty, and one-half the items had significantly positive discriminating power. Items which were not within the range of item difficulty were between 86-100%. All but two of these same items did not discriminate (see Appendix O, Table E). These items included content areas on pre-operative preparation, body mechanics, some of the principles of suctioning, and two of the most common terms used in chest assessment. Item 6 on pre-operative preparation and item 18 on chest

assessment did significantly discriminate positively. Other items which did not discriminate included the true and false item on whether or not the "tracheostomy cuff should be deflated for 3-5 minutes every four hours," and the use of the bell and diaphragm of the stethoscope. In addition, item 3 on cardiopulmonary resuscitation, item 4 on isolation, and item 5 on oxygen therapy did not discriminate. These last three items were all new questions on the second post-test and all required the application of knowledge. Since only five items within the 20-80% range of item difficulty did not discriminate, increasing the difficulty of the above mentioned items in the second post-test might improve the discrimination index. However, overall the second post-test was more difficult. There were nine items on the second post-test which measured the application of knowledge, versus five such items on the first post-test. In addition, the second post-test was shorter in length than the first post-test. Thus, the concentration of application of knowledge items was greater. Another rationale for lower scores on the second post-test involves recall after a lapse of time. Was the second post-test actually more difficult or was there a diminished recall of the content presented in the orientation program? And yet, exposure to the clinical unit should have played a part in adding to the knowledge in certain areas. The entry-level test indicated that body mechanics, isolation, and some principles of suctioning were familiar to the new graduates. Whereas, cardiopulmonary resuscitation, chest assessment, oxygen therapy, and other principles of suctioning were less familiar. The areas originally familiar to the new graduates remained generally at the same level with the exception of isolation. However, the one

item on the second post-test on isolation requiring the application of knowledge to a new situation, was answered by over half the new graduates correctly. The less familiar content areas on the entry-level test changed in status on the second post-test. Cardiopulmonary resuscitation continued to be the least familiar or most difficult area of recall. Suctioning principles still gave some problem to the new graduates, as did oxygen therapy. However, chest assessment was greatly improved over the entry-level test. Two factors played a part in determining the effectiveness of the program as measured by the second post-test. First, the test was more difficult than the first post-test. To what degree the test was more difficult and to what degree recall decreased is difficult to determine accurately. The exact same test, possibly the second post-test, should have been administered both immediately after the program and one month later. Secondly, when procedures such as cardiopulmonary resuscitation, suctioning, oxygen therapy, and chest assessment are not encountered or rarely encountered in the clinical situation, the degree of recall diminishes proportionately with the lapse of time.

In summary, the entry-level test did provide the baseline for comparison with the two post-tests and content adaptation for future orientation programs. The first post-test exhibited a definite mastery of the content of the orientation program. The second post-test was more difficult to compare directly with the first post-test since the tests were not identical. However, in comparing the second post-test with the entry-level test, the new graduates had learned from the orientation program and had retained this knowledge at least after one month lapse in time (see Table 2).

Evaluation of the Program

The results of the evaluation demonstrated a positive attitude toward the orientation program as indicated by the group means of scale scores (see Table 3). The evaluative factor scores were generally higher than the potency and activity factors. However, this was expected since the evaluation measured the attitude of new graduates toward the orientation program (Osgood et al., 1975). Even though the evaluative factor is generally used when measuring attitudes, other factors were represented to obscure the purpose and to add additional information. However, the activity and potency factors did not add a great deal to the evaluation, and in fact were often misleading. For instance, the adjective pair fast-slow, representing the activity factor, would have had a more positive response if it were marked 4 rather than 7. A rating of four would indicate the program progressed at the right pace. The majority of new graduates did respond to the scale fast-slow with around a four rating. The adjective pair heavy-light, representing the potency factor, could have been more difficult to interpret when rating Cast Participants - Concept D or Instructional Method - Concept A. There was not a definite trend toward rating these lower, or closer to light. However, misinterpretation of the scale could have been an influencing factor in rating. Even though the potency and activity factors did not add any discernible information to the results of the evaluation, they most likely helped to obscure somewhat the purpose of the measurement. Thus, the inclusion of adjective pairs from the potency and activity factors also aided in reducing a response set or "halo" effect.

As substantiated in the Analysis of the Data, the distance matrices did not show a set pattern of clusters between individuals. Over half of the evaluations had all or nearly all the concepts included in one cluster (see Appendix P). Therefore, since the concepts had nearly the same group ratings, the concepts were simply too interrelated to form clusters.

Concept B - My Involvement and Concept F - Discussion Sessions had the lowest group means, even though the difference was fractional. This was interesting for two reasons. First, the discussion sessions were more related to previous orientation programs for new graduates. Secondly, the new graduates primary involvement was during these sessions. This does not mean that the lower rating on Concept B - My Involvement was actually related to the discussion sessions. The new graduates may have wanted to be more involved altogether. If improvement were to be made on the orientation program it would entail involving the new graduate more and the discussion sessions. However, as mentioned previously, the difference between the highest rated concept and Concept B and F was 0.58.

Interview of Staff Nurses

The group means of general performance ratings and specific procedural ratings were 3.71 and 3.60, respectively (see Appendix Q). Only six new graduates were rated at generally performing at an average level (3.0). In all but five instances, the responses to the open-ended questions 1 and 2 and the weekly performance evaluations revealed the performance of new graduates to be very good. Therefore, the overwhelming majority of staff nurses perceived the new graduates performance

on the clinical units to be very good at the end of four weeks of orientation.

Nearly half the responses to the performance of specific procedures (item 6) were 0 (see Appendix Q). The 0 responses were almost equally divided between non-applicable procedures to the specific unit, procedures which had not been performed yet, and procedures which had not been directly observed by the staff nurse. The procedures which had not been performed at this point were often due to the situation having not occurred on the unit. Common procedures in this area were cardiopulmonary resuscitation, oxygen therapy, suctioning, isolation, and sterile dressings. Procedures, such as pre-operative preparation, discharge, admission, and patient interview were either non-applicable or not directly observed by the staff nurse. For example, the patient interview would be non-applicable to the Intensive Care Unit. Pre-operative preparation would rarely be applicable to a medical unit. In other instances these procedures were so routine to the staff nurse, they were low on the priority list of direct observation. However, over half the staff nurses did observe these procedures being performed. When chest assessment was rated with a 0 response, it was because the staff nurse had not observed the new graduate or did not know for sure if the new graduate was doing chest assessments. The performance of chest assessment on the general clinical units was a new concept at the study institution. Therefore, over half the staff nurses responding to this procedure was more than had been anticipated. Many of the team leading responsibilities, such as discharge planning, team conferences, and pre-operative teaching were considered by staff nurses to be non-applicable. On some units, such as

intensive care unit, cardiac recovery room, operating room, and the intravenous department, this was the case. However, on most units these team leading responsibilities were applicable, but staff nurses did not consider them as such. Staff nurses did not as yet see these responsibilities as their priorities in providing quality patient care.

Obviously, staff development was needed in the areas of discharge planning, team conferences, and pre-operative teaching. The team leading responsibility of writing and updating nursing care plans was also commonly rated with a 0 response. Half of these 0 responses were because the new graduate had not written nursing care plans at this point. However, in every instance when there was a 0 response to nursing care plans, the staff nurse remarked "Well, we don't really do them on our unit; there just isn't time." Therefore, staff nurses did not have a positive influence on new graduates in becoming involved with nursing care plans. This was another team leading responsibility which demanded staff development.

It might be questioned if it was valid to have procedures included in the orientation program content which were infrequently performed on the unit or of low priority to the staff nurses. However, procedures such as cardiopulmonary resuscitation, oxygen therapy, isolation, suctioning, and sterile dressings, although infrequently performed, were most frequently performed inadequately or incorrectly on the units. Thus, proper exposure to these procedures once in an orientation program was considered by the researcher to be better than no exposure before the situation did arise. Team leading responsibilities of low priority to the staff nurses were included in the program as an influencing factor in

promoting these functions on the unit. Kramer (1974) sees this influence of new graduates on the unit as an inservice educators responsibility to promote. Kramer emphasizes: "To [the inservice educator] is entrusted the responsibility of explaining and interpreting the system--not only in terms of orienting new nurses to various departments and how the equipment works but, more important, in helping the neophyte develop effective interpersonal strategies so that she can nurse within the system and be a positive influence for betterment of patient care" (p. 227).

When "problems" with new graduates were mentioned by staff nurses either in the open-ended questions of the interview or in the weekly evaluations, they revolved around organization of time, setting priorities, and/or delegation of tasks. However, one must take into consideration that many new graduates were involved with total patient care or "mini-teams" as students, or at best full team leading responsibilities for part of their last year in school. In school, the new graduate organized her work on the basis of a whole-task model. Her work role demands "require that she delegate many tasks and that she function in a network of part-tasks that will meet the needs of large groups of patients" (Kramer, 1974, p. 193). The few new graduates who had difficulty organizing their time, setting priorities, and/or delegating tasks were all from baccalaureate schools of nursing. They had had little exposure to team leading. Therefore, it was difficult for them to adjust to the role change.

Question 4 on the interview, "Do you feel the orientation program was helpful in preparing X for the unit?" requested a response of very much, some, very little, or unknown. However, nearly half the staff

nurses were unaware of the content of the orientation program. Staff nurses who were able to respond to question 4 generally responded very positively. These nurses either were informed about the program by the new graduates themselves or had actually participated in the orientation program. More responses and information on the interview might have been gathered if the researcher had communicated with the staff nurses directly regarding program content. The content was discussed in nursing service meetings. However, this was not carried through to staff nurses.

The comparison of present and past new graduates demonstrated that a more organized orientation at present, previous experience on the unit, and individuality were the primary differences, in order of priority.

Although the staff nurses generally perceived the new graduates' performance on the clinical units to be very good, it is difficult to ascertain whether or not this was due to the effectiveness of the orientation program. Would they have had similar ratings and evaluations with another type of orientation program? Without a control group from which to make such a comparison, there is no way of definitely stating that the positive responses on the interviews and weekly evaluations were a result of the orientation program.

Level of Education

Level of education was not an influencing factor on the cognitive test results. In addition previous experience at the study institution did not effect the test results. However, previous experience at other hospitals did exhibit a positive influence on the results of the first and second post-tests, but not on the entry-level test. A possible

explanation might be that new graduates who had worked at other hospitals during school were more motivated to learn the routines and procedures specific to the study institution. New graduates who had had previous exposure to the study institution may have assumed that they already were sufficiently prepared for working on the units before orientation.

Previous experience either at the study institution or at other hospitals did not have a significant effect on interview ratings or weekly evaluations. Level of education, however, did influence the results of the interviews. None of the associate degree graduates and only one diploma graduate had ratings below 3.4. And yet, six baccalaureate graduates had ratings below 3.4, all of whom were from the same school of nursing. One explanation for these graduates receiving lower ratings might be that this particular program offered less hospital-based clinical experience to their students than other programs, even other baccalaureate programs in the area. Thus, the performance of these new graduates was slower and less organized at this point in time.

Only two factors had a partial influence on the results of the study. Previous experience as a Nursing Assistant at other hospitals had a positive effect on the results of the first and second post-tests. And, half of the graduates of baccalaureate schools of nursing had lower ratings on the interviews.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Employee turnover is an ever-increasing problem to employers of all institutions. It is costly both in terms of time and energy to retrain new personnel. Although poor selection of employees, job dissatisfaction, personal commitments, and poorly constructed personnel policies have been identified as contributory factors to turnover, literature substantiates inadequate orientation as the key factor in increasing turnover rates. Literature repeatedly emphasizes the positive benefits of a well-developed and organized orientation program. However, the development and implementation of such a program has remained a problem. Traditionally, orientation programs have encompassed a list of topics presented mostly in film and lecture form. In the hospital setting, some employers or nurse educators include additional clinical orientation based on the individual needs of the employee. Since the clinical orientation of nursing personnel had already been individualized at the study institution, the concern of the researcher was with the initial exposure to the hospital setting--the orientation program.

New graduate nurses were chosen as the population of the study since a large number of new graduates are hired at the study institution in the

months of May and June. Literature reveals that the majority of current nursing education is directed toward a self-instructional approach. Therefore, an innovative approach to the orientation of new graduates was selected to meet the change in population.

The purpose of the study was to develop and test dramatization as an innovative approach to the orientation of new graduates to the hospital setting. A three-day orientation program was developed, dramatizing the admission, hospitalization, and discharge of a patient. The drama was periodically interrupted by a group workshop session or discussion session. The effectiveness of the program was measured by the results of three cognitive tests, the evaluation of the program, interviews of staff nurses, and weekly performance evaluations written by staff nurses on the new graduates' progress in the clinical area.

The entry-level test was designed as a baseline for comparison of the two post-tests, as well as future orientation program adaptations. The first post-test demonstrated definite mastery and recall of the content of the orientation program. The second post-test, when compared directly with the entry-level test, indicated that recall of program content remained after a one month lapse in time. The new graduates' evaluations of the orientation program, according to the group means of scale and factor scores on the semantic differential, exhibited a positive attitude toward all aspects of the program. The results of the interviews and the weekly performance evaluations demonstrated that staff nurses perceived the clinical performance of the new graduates to be very good. Level of education was not an influencing factor on the results of the cognitive tests. However, education did affect the interview

ratings. Baccalaureate graduates received lower ratings. Previous experience at other institutions was the only factor that influenced the test results. Graduates with experience other than at the study institution had more scores above the mean on the two post-tests.

Conclusions

The innovative, theatrical approach to orientation was demonstrated to be an effective means of orienting new graduate nurses to the hospital setting, as measured by the cognitive tests, evaluations, and interviews of staff nurses. However, since there was not a control group, it cannot be substantiated in the present study that the theatrical approach is more effective than other methods of orienting new graduate nurses.

Recommendations

The following recommendations for further study are suggested by the researcher:

1. Further testing of the theatrical approach to orientation with larger and different groups of professional nursing personnel.
2. Testing a video taped version of the orientation program versus a "live" performance.
3. Administration of an identical cognitive test immediately following the orientation program and after one month to measure recall more accurately.
4. A controlled study to compare the theatrical approach to orientation with the lecture-film method, including a cost analysis.
5. Evaluation of the effectiveness of the program in decreasing the turnover of employees versus the lecture-film method.

References

Reference Notes

1. Brigham, R.; Staff Development Instructor at Providence Hospital. Personal communication, April 14, 1975.
2. Bryant, R.; Assistant Director of the School of Nursing at Good Samaritan Hospital and Medical Center. Personal communication, April 4, 1975.
3. Carley, M.; Associate Chief, Nursing Service for Education at Veterans' Administration Hospital in Portland. Personal communication, April 14, 1975.
4. Cory, V.; Instructor at the School of Nursing of the University of Oregon Health Sciences Center. Personal communication, April 14, 1975.
5. Davy, D.; Director of Hospital Education at Good Samaritan Hospital and Medical Center. Personal communication, April 14, 1975.
6. Fenelon, J.; Instructor at the University of Portland School of Nursing. Personal communication, April 4, 1975.
7. Hale, H.; Coordinator of the second year level of the Associate Degree program at Portland Community College. Personal communication, April 4, 1975.
8. Lerma, J.; Inservice Director at University of Oregon Health Sciences Center - North. Personal communication, April 14, 1975.
9. Main, B.; Director of Staff Development at Emanuel Hospital. Personal communication, April 14, 1975.

10. Rice, B.; Coordinator of the Associate Degree Program at Mt. Hood Community College. Personal communication, April 4, 1975.
11. Yap, B.; Director of Education and Training at Emanuel Hospital. Personal communication, April 14, 1975.

References

- Barrett, J. The head nurse - her changing role. New York: Appleton Century-Crafts, 1968.
- Berke, M. Recruitment and training of personnel. Hospital Management, July 1960, 90, 44-45; 90.
- Bloom, B. (Ed.), Taxonomy of educational objectives. Handbook I: Cognitive Domain. New York: David McKay Co., 1964.
- Bloom, B., Hastings, J.T., & Madaus, G. Handbook on formative and summative evaluation of student learning. New York: McGraw-Hill Book Co., 1971.
- Catania, J.J. Why do nurses change jobs? Hospital Management, August, 1964, 98, 93-94.
- Chapman, T. Orientation - first impressions last. Journal of Continuing Education in Nursing, January-February 1975, 6 (1), 44-47.
- Christman, L. Knowledge, change and nursing care. American Journal of nursing, September 1966, 66, 2027-2029.
- Christman, L., & Kirkman, R. A significant innovation in nursing education. Peabody Journal of education, October 1972, 50, 57-62.
- Dean & Palmer. Increasing employee productivity and reducing turnover. Training and Development Journal, March 1973, 27 (3), 52-54.
- Espelien, A. The television lecture - then what? American Journal of Nursing, December 1965, 65, 112-113.

- Gahart, B. Employee orientation is a whole new ball game. Hospital Forum, March 1975, 17 (12), 5-6.
- Gronlund, N.E. Constructing achievement tests. New Jersey: Prentice-Hall, Inc., 1968.
- Hahn, M., & Magill, K. A bridge over troubled waters. Journal of Continuing Education in Nursing, May-June 1973, 4, 15-19.
- Inservice alone is not enough. In-Service Training and Education, January-February 1973, 2, 72-74.
- Jacobs, D.L.G. How to train workers. Hospital Management, October 1960, 90, 89-91.
- Kerlinger, F. Foundations of behavioral research. New York: Holt, Rinehart and Winston, Inc., 1973.
- Kramer, M. Reality shock. St. Louis: The C.V. Mosby Co., 1974.
- Langford, T. Self-directed learning. Nursing Outlook, October 1972, 20 (10), 648-651.
- Metzger, N. Sound orientation can reduce turnover. Hospitals, September 1, 1967, 41, 62-64.
- Osgood, C.; Suci, G.; & Tannenbaum, P. The measurement of meaning. Chicago: University of Illinois Press, 1975.
- Penzer, W. Employee orientation: does it relieve pain or create it? Management Review, July 1973, 62, 17-24.
- Reagan, P. Orientation the off off Broadway way. American Journal of Nursing, July 1973, 73, 1223-1225.
- Scully, D., & Stopera, V. A staff development model. Nursing Outlook, June 1974, 22, 390-393.

Vining, K.E. Employee orientation program. Hospital Progress, June 1973, 54, 85-86.

Watkin, B. Management topics: induction. Nursing Mirror, May 3, 1974, 138, 77.

Wittkopf, B. Self-instruction for student learning. American Journal of Nursing, November 1972, 72, 2032-2034.

Appendices

Appendix A

Correspondence and Permission to Duplicate
from Author of "Off Off Broadway Way."



ST. MARY'S HOSPITAL

89 Genesee St., Rochester, N. Y. 14611

April 2, 1975

Ms. Carol Hamblet, RN
Director of Inservice Education
St. Vincent Hospital and Medical Center
9205 S.W. Barnes Road
Portland, Oregon 97225

Dear Ms. Hamblet:

Please excuse the delay in responding to your correspondence of March 20. I shall attempt to respond to your specific questions contained in the letter.

We are still utilizing the program as outlined in the article in the American Journal of Nursing. It is feasible at this point, to use it for the bulk of the new graduate staff who come in to our employment, by and large, in the month of June. The "Off Broadway Method" works best for the beginning practitioner. Graduates throughout the course of the year, thereafter, are not beginning practitioners and they are oriented on an individual basis.

The specific program cited in the article refers only to three portions of our orientation. In fact our orientation is approximately a five week period and thereafter extends, of course, throughout the course of the summer. The three skits as described are geared to take approximately an hour apiece. In the case of the CPR, more extensive time is allotted for practice. One of the skits also deals primarily with the development of Nursing Care Plans and following the presentation the graduates are involved in small group work sessions in developing approaches to patient care. I would say that we would generally plan about two hours per session; total of six hours then for these particular programs. They are given on three different days, not necessarily consecutive days. The scheduling depends on the other programs in our orientation program. The first attempt at this type of orientation was by far the most time consuming and actually took several weeks in terms of recruiting individuals within the hospital to participate; some indoctrination of these individuals into what we were attempting to do, and then

Ms. Carol Hamblet, RN

Page 2

allowing sufficient time to develop how they would interpret the guidelines we gave them for "script".

One of your questions also deals with personnel orientation in addition to the programs we outline. I assume you are referring to hospital personnel policies and benefits by your question. This portion of the orientation program is conducted by our Director of Personnel and is one of the several programs that are provided by various Department Heads for new people as they come in to our hospital employment.

Addressing your question of what prompted this theatre in the round, I would imagine that it was born as any other idea would be born. Each year we review our orientation programs and attempt to identify the most effective methods of orientation. At some point during one of our discussions I happened to decide that we were using too much of the lecture method. Thinking along the lines of not only holding the interest of the group participants, but also trying to impart necessary information in some more interesting fashion than straight lecture methods, this idea came up. The reaction of our own staff and our orientees has been most gratifying. It's something that most of the orientees have never seen or heard before. They seem to remain quite interested throughout our skit presentation. We deliberately allow people who are in our programs to be as much their own personal selves as possible. We didn't have any trouble recruiting people to participate. A lot of people have some "ham" in them and hospital employees are no exception. Some staff obviously are much more outgoing. Approaching various people that we thought might do well, with an opportunity to participate, and leaving the decision up to them, it became quite easy to fill our necessary spots on the program. In addition to the individuals that we thought might do well in the program, we also tried as much as possible to utilize staff in their actual roles within the hospital such as the Public Health Nurse Clinician, Social Services Director, Health Services and so on. In terms of motivating staff, including physicians, to become involved, for some reason or other this presented no problem whatsoever. We approached the Chief of Anesthesiology, a couple of our house officers, a couple of our attending physicians, and actually in terms of being available for practice periods; actually arriving at the program, and participating in a fantastic way, we encountered no problem. One of your questions deals with how long the group of actors played their role and I think

Ms. Carol Hamblet, RN

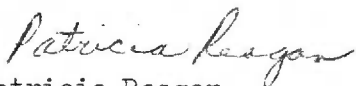
Page 3

referring to the fact that we have limited this particular type of orientation to the bulk of our staff in June, usually the people have played their roles not more than twice. However, it does become a relatively small matter to recruit another individual. I cannot really say that the participants get bored. I'm sure they do, in answer to another of your questions, have difficulty in getting away from their other responsibilities. Careful scheduling well ahead of time, and more or less allowing the people to give us times when they will be available for practice as well as when they can be available for the actual orientation program, seems to work out quite well.

I am hoping in the near future to utilize this type of program throughout the course of the year. At this point our staff education department are developing an orientation program which is probably quite familiar to you in methodology. They are working on slides and tape presentations which could be utilized for any employee. It could happen that at some point we would take movies or slides of one of our own live sets of skits and utilize them then throughout the course of the year, in a tape presentation, for other new employees. We have not ventured into this area at this point probably due to the fact that there have been some organizational changes this past year which have altered the responsibility somewhat of staff development personnel. As priorities are set up orientation programs are coming to the fore at this point in their new responsibilities.

I hope I have answered some of your questions. I certainly would be happy to forward you any further specific information that might be of value to you. We will be doing our program again in the middle of June. Should you have any interest in contacting me again in late June I would be happy to communicate with you as to how our most recent effort went over. I wish you the very best of luck in your program. I think you will find it a very rewarding experience, and I am quite sure that your orientees will appreciate the interest that you show in their program.

Yours truly,



Patricia Reagan
Director of Nursing
St. Mary's Hospital
Rochester, New York 14611

Appendix B
Script of Orientation Program
for New Graduates

SCRIPT

ORIENTATION PROGRAM FOR NEW GRADUATES

DAY 1

8:00-11:30 a.m.

Sign-in
Introduction
Administration of Entry-level Test
Lunch

(11:30 a.m.)

SCENE 1 - Admission of patient. (Diagnosis:
Peptic ulcer. Admitted for partial gastrectomy.
History of Congestive Heart Failure and pulmonary
complications.)

Admitting clerk at desk.
Patient and wife sitting in audience.

Admitting clerk calls for Mr. Garcia.

ENTER - Patient and wife, carrying suitcase.
Patient interviewed.

Admitting clerk calls Transportation.

ENTER - Transportation orderly with wheelchair.
EXIT - Patient, wife, and orderly.

(11:45 a.m.)

SCENE 2 - Arrival on unit.

NURSES' STATION

Unit secretary at desk. Patient aide (P.A. writing
on blackboard - patient's on N.P.O., discharged, etc.)

ENTER - Patient and wife with Transportation orderly.
Unit secretary greets patient and locates P.A.

P.A. and Transportation escort patient to room.

PATIENT'S ROOM

Patient helped to bed.
EXIT - Transportation orderly.

P.A. determines any immediate needs of patient to
make him comfortable. Asks patient to change into
gown.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

EXIT - Patient aide.

ENTER - P.A. with blood pressure cuff, stethoscope, IVAC electronic thermometer. Proceeds to take vital signs, completes admitting checklist (valuables, prosthesis, allergies, medications, etc.), explains environment (console, controls, etc.).

ENTER - Team leader (T.L.).

EXIT - P.A. - after brief exchanges between P.A. and T.L.

T.L. interviews patient and assesses his physical status.

ENTER - DOCTOR

Explains surgical procedure to patient and wife.
Answers questions.
(T.L. remains in room.)

EXIT - DOCTOR. Team Leader remains.

Explains surgical procedure further if needed. Also, explains pre-operative preparation in a.m. - approximate surgery time, time spent in recovery room and why, where wife can wait while patient in surgery, and approximate time patient will return to unit.

EXIT - Team Leader. Wife stays a moment longer to say goodbye to husband.

EXIT - Wife.

(12:15)

SCENE 3 - Day of surgery.

PATIENT'S ROOM

Patient in bed.

ENTER - Patient aide.

Prepares patient pre-op - checks valuables, glasses, dentures, voided.

EXIT - P.A. Goes to NURSES' STATION.

NURSES' STATION

Team Leader and unit secretary at desk.

P.A. walks up with pre-op checklist.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

T.L. and P.A. go over checklist to make sure everything is in order.

EXIT - P.A.

T.L. does final chart check - radiology report, laboratory report, history and physical completed, operative permit signed, etc.

T.L. goes to PATIENT'S ROOM to double check legal signature on operative permit. Returns to NURSES' STATION.

Unit secretary answers phone - pre-operative medications ordered "to give."

T.L. prepares pre-op medication.
Reads order from chart aloud.
Checks medication properly.

PATIENT'S ROOM

ENTER - T.L. with pre-op med.
(Forgets to check identification bracelet.)
Simply says - "Hi Rick" and proceeds to give med.
Returns to nurses' station after giving med.

NURSES' STATION

T.L. and U.S. at desk.
ENTER - Transportation orderly with stretcher.
Seeks help in moving patient.

T.L. and Transportation orderly proceed to patient's room.

Patient moves onto stretcher.

EXIT - Transportation orderly with patient followed by T.L.

1:00-1:50 p.m.

DISCUSSION SESSION

Reactions to, criticisms of, and questions about the drama. Medication, narcotic, and siderail policies reviewed.

1:50-2:00 p.m.

Coffee

(2:00 p.m.)

SCENE 4 - Preparation of post-operative room.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

PATIENT'S ROOM

T.L. and P.A. are in process of setting up the post-op room.

T.L. is explaining the procedure to the new P.A.-bed making, room set-up.

Suction and oxygen equipment are in room. Rationale for oxygen equipment as well as particular type used is explained.

ENTER - Licensed practical nurse.

She listens to last part of explanation on oxygen therapy. Voices concern about suctioning patient, since she has never performed this procedure.

Team Leader suggests a team conference on suctioning.

(2:30 p.m.)

SCENE 5 - Team conference

CONFERENCE ROOM

Team Leader has invited the Educational Services Coordinator to speak on suctioning. T.L. introduces guest speaker.

Educational Services Coordinator lectures and demonstrates tracheostomy, endotracheal, and nasotracheal suctioning technique.

4:15-4:30 p.m.

DISCUSSION SESSION

Time to view oxygen equipment, suction catheters, and tracheotomy tubes on display, and ask questions.

DAY 2

(8:00 a.m.)

SCENE 6 - Team conference

CONFERENCE ROOM

T.L., P.A., and L.P.N. develop a nursing care plan for Mr. Garcia.

(8:30-9:15 a.m.)

WORKSHOP SESSION

The graduate nurses are given a case study from which they develop a nursing care plan.

(9:30 a.m.)

SCENE 7 - Immediate post-operative period.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

NURSES' STATION

T.L., L.P.N., and P.A. at desk.

ENTER - Transportation orderly with patient on
stretcher. Recovery room nurse follows.

Transportation orderly seeks help in moving patient.

Group proceeds to patient's room.

PATIENT'S ROOM

Wife in room. T.L. asks her to step out for a moment.
Group enters. Patient moved using good body
mechanics. T.L. explains body mechanics to P.A.

EXIT - Transportation, recovery room nurse, P.A., and
T.L. L.P.N. remains and quietly takes vital signs
and assesses patient's condition.

Recovery room nurse and T.L. return to nurses' station.

NURSES' STATION

Recovery room nurse gives report on patient's condition
to T.L.

EXIT - Recovery room nurse after report.

T.L. proceeds to patient's room.

PATIENT'S ROOM

L.P.N. in room with patient.

ENTER - T.L. Checks vital signs with L.P.N.

EXIT - L.P.N.

T.L. assesses patient's condition - checks level
of consciousness, pulses, color and skin tempera-
ture, intravenous fluids and oxygen, dressings.

EXIT - T.L. when finished. Returns to nurses' station.

NURSES' STATION

T.L. charts patient condition, talking aloud.

(10:00 a.m.)

SCENE 8 - First day post-operatively.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

PATIENT'S ROOM

Patient in bed. Intravenous nurse in room checking intravenous fluids and insertion site.

ENTER - L.P.N. with dressing supplies.
Chaos ensues.

Patient does not want procedure performed at this time, L.P.N. insists. She roughly tears tape off dressing, breaks sterile technique, notes purulent drainage and over-reacts by blaming patient for causing this infection. Patient becomes very upset.

ENTER - Wife and situation worsens.

EXIT - L.P.N., not knowing how to handle the situation at this point. Returns to nurses' station.

NURSES' STATION

T.L. at desk.

ENTER - L.P.N. Relates incident with Mr. & Mrs. Garcia. States she does not know why he became so upset.

T.L. tells the L.P.N. to go and get a cup of coffee and calm down. She states she will join her directly.

EXIT - L.P.N. followed in short time by T.L.

10:30-11:30 a.m.

DISCUSSION SESSION

How should the L.P.N. have handled the discovery of an infection? How might the T.L. and L.P.N. cope with the situation now?

11:30-12:00

Lunch

12:00-1:00 p.m.

WORKSHOP SESSION

Practice session with sterile dressings. Chart forms available on display.

(1:00 p.m.)

SCENE 9 - Isolation set-up.

PATIENT'S ROOM

L.P.N. in room with patient. She apologizes for earlier incident and her behavior. Calmly explains isolation set-up and the procedures it entails.

L.P.N. then calls for P.A. to assist in bagging-out.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

ENTER - P.A. outside room.

L.P.N. bags-out garbage and linen with P.A. Finish and then both EXIT.

NURSES' STATION

T.L. at desk taping end-of-shift report. Gives 4 or 5 patients as examples. Includes Mr. Garcia - incident with dressing change, presence of purulent drainage, culture taken, isolation set-up, and observations of his condition.

1:30-1:45 p.m.

Coffee

1:45-2:30 p.m.

DISCUSSION & WORKSHOP SESSION

Questions and answers on isolation procedure. Practice session with taping report.

(2:30 p.m.)

SCENE 10 - Team conference.

T.L. states that with Mr. Garcia's chest problems, she felt it would be beneficial to have a lecture on chest assessment.

Introduces Educational Services Coordinator.

Lecture and discussion of normal and abnormal chest sounds and techniques in listening.

4:00-4:30 p.m.

Question and answer period.

DAY 3

(8:00 a.m.)

SCENE 11 - Fifth day post-operatively.

NURSES' STATION

T.L., P.A., and wife at desk. Discussing how well Mr. Garcia is recovering.

MEANWHILE --

PATIENT'S ROOM

Patient in room. During a coughing spell, Mr. Garcia goes into laryngospasm. He leans over to push call button. Reaches, pushes button, and has respiratory arrest.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

NURSES' STATION

After a few moments, P.A. notes Mr. Garcia's light is on. Asks what he wants - there is no answer. She says she will go see what he wants.

PATIENT'S ROOM

ENTER - P.A.

Sees patient slumped over. Checks him and notes he is not breathing. Not knowing what to do, she runs out to the NURSES' STATION.

NURSES' STATION

P.A. runs up to T.L. and in loud voice says Mr. Garcia is not breathing.

T.L. goes with P.A. to Patient's Room.

Wife over-hearing what was said, becomes very upset. L.P.N. tries to calm her.

After confirming the arrest, T.L. tells P.A. to have a "Code 99" called. Meanwhile T.L. begins mouth-to-mouth resuscitation.

P.A. returns to Nurses' Station and tells unit secretary to call a "Code 99."

L.P.N. continues to try and calm the wife. Has P.A. escort wife to coffee room (off stage).

PATIENT'S ROOM

T.L. in room with patient. Has lowered head of bed and started respiratory resuscitation.

ENTER - L.P.N. and assists.

ENTER - "Code 99" team - respiratory therapist, I.V. nurse, electrocardiography technician, assistant director, and doctor. (Few seconds between each person entering.)

Patient progresses to cardiac arrest as well as respiratory arrest. "Mock" cardio-pulmonary arrest procedure continues - I.V. is inserted, sodium bicarbonate given, patient defibrillated, etc.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

Patient is resuscitated. "Code 99" team exits as not needed. T.L. and L.P.N. remain for while longer - then EXIT.

8:25-10:30 a.m.

WORKSHOP SESSION

Practice session with cardio-pulmonary resuscitation.

10:30-10:45 a.m.

Coffee

(10:45 a.m.)

SCENE 12 - Three days later --
Discharge planning conference.

CONFERENCE ROOM (9 chairs)

T.L. conducts a team conference on discharge planning. She has invited a dietician, respiratory therapist, social worker, discharge coordinator, patient, and wife. Also, present are the L.P.N. and P.A.

Discussion follows on dietary and oxygen needs at home. Wife and patient voice concern over financial problems and how and where to obtain help.

Social worker states that she will visit the patient and discuss some financial possibilities with him.

At the conclusion of the conference, the social worker approaches the wife and asks if she would like to come by her office the next morning.

(11:15 a.m.)

SCENE 13 - Follow up by social worker.

PATIENT'S ROOM

Patient in room.

ENTER - Social worker.

The social worker and patient discuss his concerns and possible approaches to his financial needs.

The patient speaks more freely in this atmosphere.

EXIT - Social worker.

(11:45 a.m.)

SCENE 14 - Wife visits social worker.

SOCIAL WORKER'S OFFICE

Social worker at desk.

ENTER - Wife.

SCRIPT
ORIENTATION PROGRAM FOR NEW GRADUATES

Social worker greets her and offers a chair.
This time is spent letting the wife vent her feelings,
frustrations, and concerns about the hospitalization
and home-care.

12:15-1:00 p.m.

Lunch

1:00-2:00 p.m.

DISCUSSION SESSION

Reactions - positive and negative to team conference
on discharge planning and follow up. What else may
have been considered or deleted.

2:00-3:00 p.m.

GENERAL SESSION

Time allowed for viewing displays and asking
questions about orientation or hospital.
Clinical rotations and schedules distributed and
explained.

3:00-3:15 p.m.

Coffee

3:15-4:00 p.m.

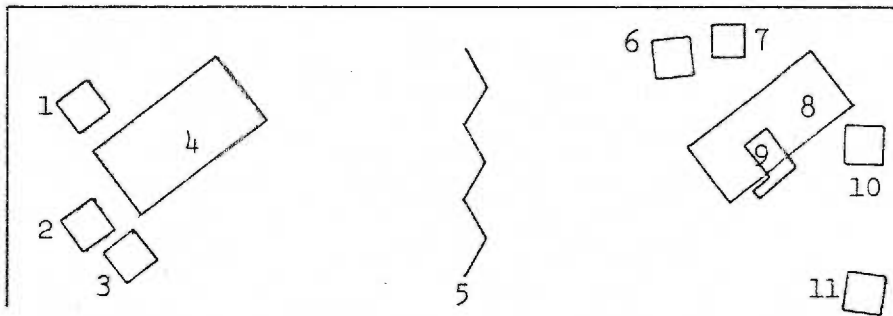
Administration of Post-test and completion of
Evaluation of the Orientation Program.

Appendix C
Stage Settings and Props

STAGE SETTINGS AND PROPS

Scene 1

Admitting Department and Patient's Room



- 1. chair
- 2. chair
- 3. chair
- 4. table
- 5. screen

- 6. chair
- 7. console
- 8. bed
- 9. over-bed table
- 10. chair
- 11. podium

Props

phone on table

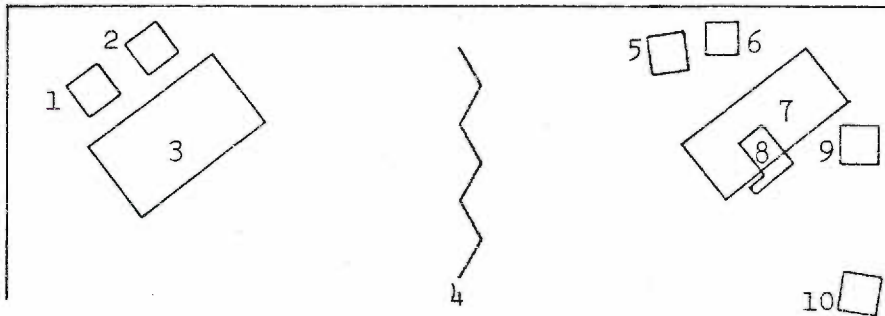
admitting forms on table

suitcase--carried by wife

wheelchair--brought by transportation orderly

Scene 2

Basic Setting--Nurses' Station & Patient's Room



1. chair
2. chair
3. table
4. screen

5. chair
6. console
7. bed
8. over-bed table
9. chair
10. podium

Props

phone on table

wheelchair--patient arrives in

blood pressure cuff

stethoscope

IVAC thermometer

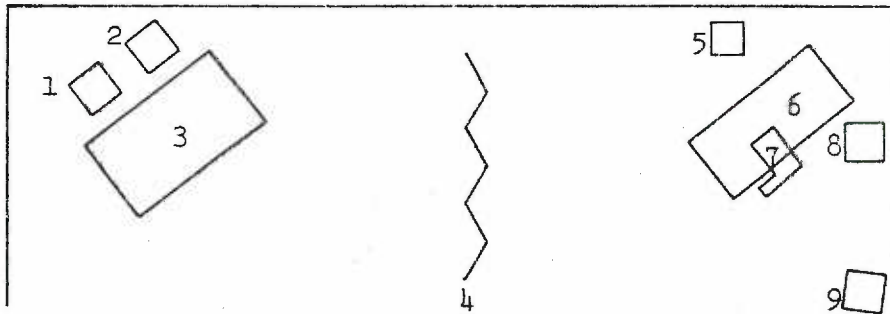
admitting checklist

specimen bottle

Patient aide brings
into patient's room.

Scene 3

Basic Setting--Nurses' Station & Patient's Room



1. chair
2. chair
3. table
4. screen

5. console
6. bed
7. over-bed table
8. chair
9. podium

Props

ON TABLE--

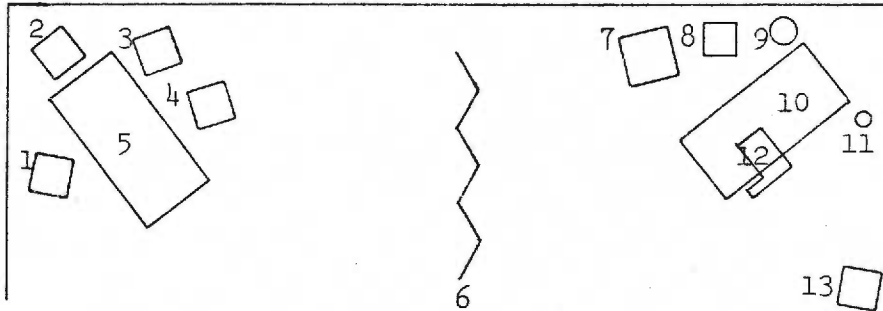
phone
 chart with pre-operative checklist
 medication, tubex metal holder,
 alcohol wipe, medicine card

IN PATIENT'S ROOM--

adhesive tape
 stretcher brought by transportation orderly

Scene 4 and Scene 5

Team Conference & Patient's Room



1. chair
2. chair
3. chair
4. chair
5. table
6. screen

7. suction machine
8. console
9. oxygen tank
10. bed
11. I.V. standard
12. over-bed table
13. podium

Props

IN PATIENT'S ROOM--

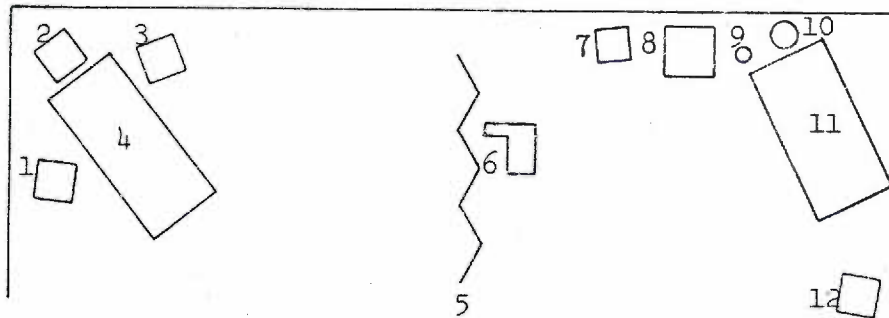
nasal cannula

emesis basin

hand towel

Scene 6

Team Conference & Patient's Room



- | | |
|-----------|--------------------|
| 1. chair | 6. over-bed table |
| 2. chair | 7. console |
| 3. chair | 8. suction machine |
| 4. table | 9. I.V. standard |
| 5. screen | 10. oxygen tank |
| | 11. bed |
| | 12. podium |

Props

IN PATIENT'S ROOM--

nasal cannula

emesis basin

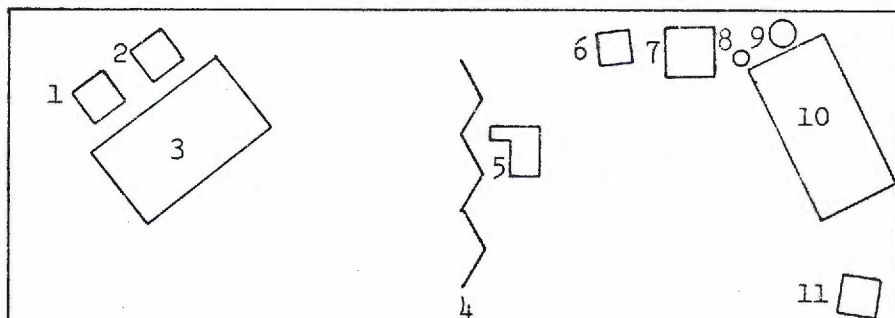
hand towel

ON TABLE--

nursing care card and tablet

Scene 7

Nurses' Station & Patient's Room



1. chair
2. chair
3. table
4. screen

5. over-bed table
6. console
7. suction machine
8. I.V. standard
9. oxygen tank
10. bed
11. podium

Props

ON TABLE--phone

IN PATIENT'S ROOM--blood pressure cuff, stethoscope

Patient returns with--dressing on, I.V. line taped to arm,

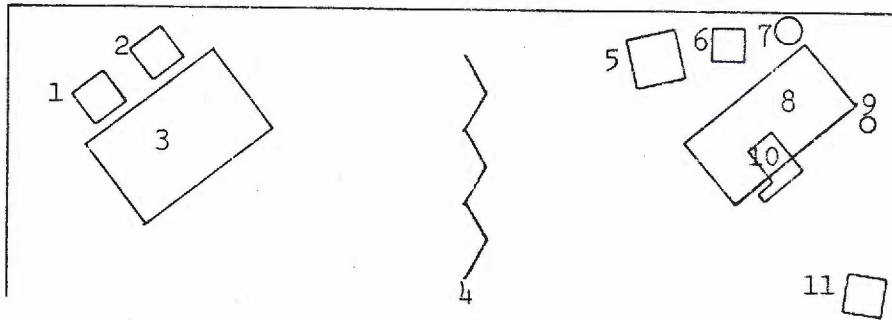
nasal cannula on.

Stretcher with oxygen tank--brought by transportation orderly.

Chart--carried by recovery room nurse.

Scene 8

Nurses' Station & Patient's Room



1. chair
2. chair
3. table
4. screen

5. suction machine
6. console
7. oxygen tank
8. bed
9. I.V. standard
10. over-bed table
11. podium

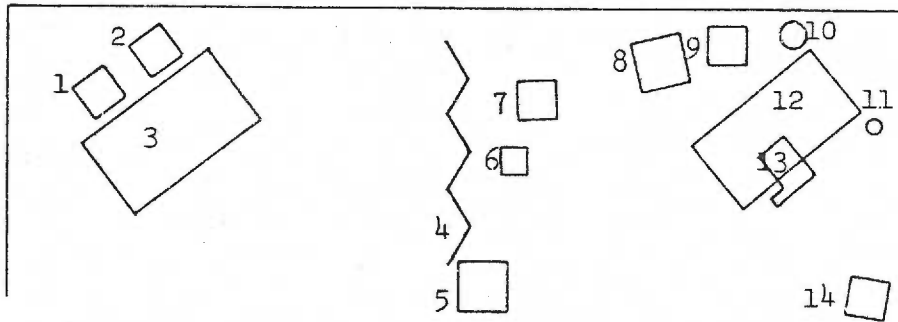
Props

L.P.N. carries with her:

sterile dressing tray with dressing kit, tape, gloves,
betadine solution, sack.

Scene 9

Nurses' Station & Patient's Room



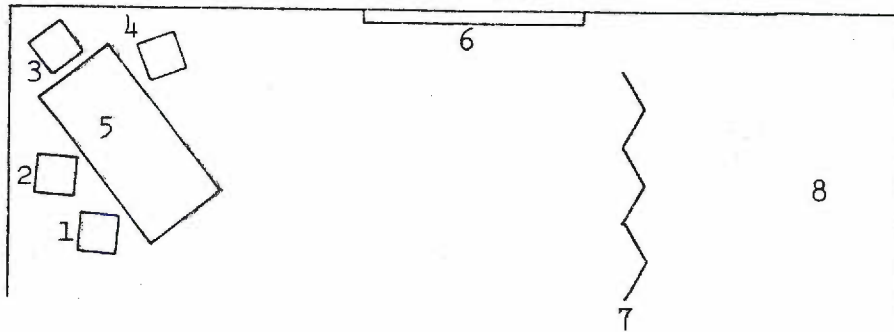
- | | |
|-----------|--------------------|
| 1. chair | 5. isolation cart |
| 2. chair | 6. waste basket |
| 3. table | 7. chair |
| 4. screen | 8. suction machine |
| | 9. console |
| | 10. oxygen tank |
| | 11. I.V. standard |
| | 12. bed |
| | 13. over-bed table |
| | 14. podium |

Props

ON TABLE--tape recorder, phone, patient's chart, nursing
care kardex

Scene 10

Team Conference



1. chair

2. chair

3. chair

4. chair

5. table

6. blackboard

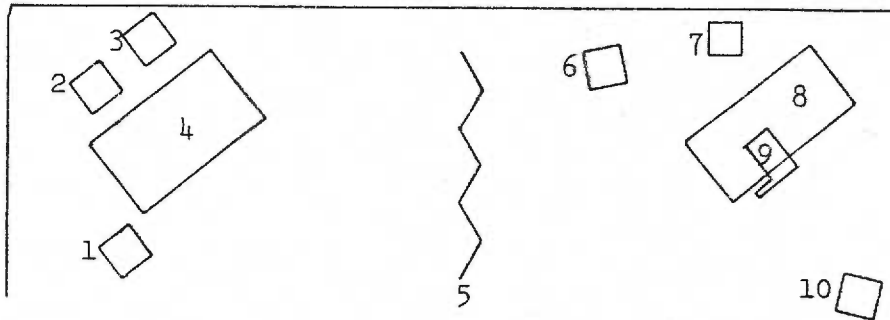
7. screen

8. bed & furniture
moved to sideProps

None

Scene 11

Basic Setting--Nurses' Station & Patient's Room



1. chair

2. chair

3. chair

4. table

5. screen

6. chair

7. console

8. bed

9. over-bed table

10. podium

Props

Code 99 team brings--

code cart

I.V. tray

In back of room--brought in by T.L.

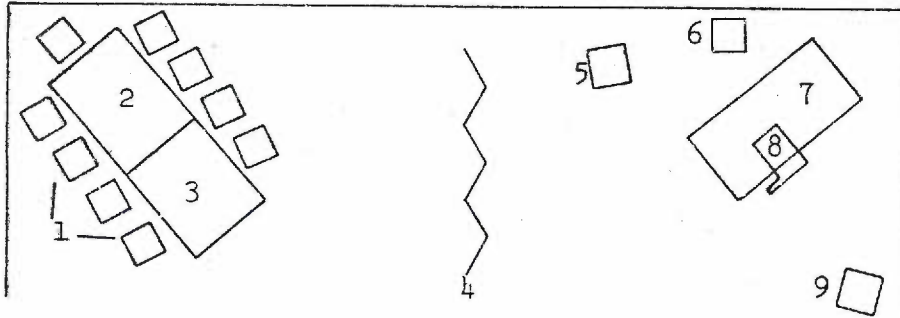
I.V. standard

suction machine

extra bicarbonate

Scene 12

Discharge Planning Conference & Patient's Room



1. nine chairs

2. table

3. table

4. screen

5. chair

6. console

7. bed

8. over-bed table

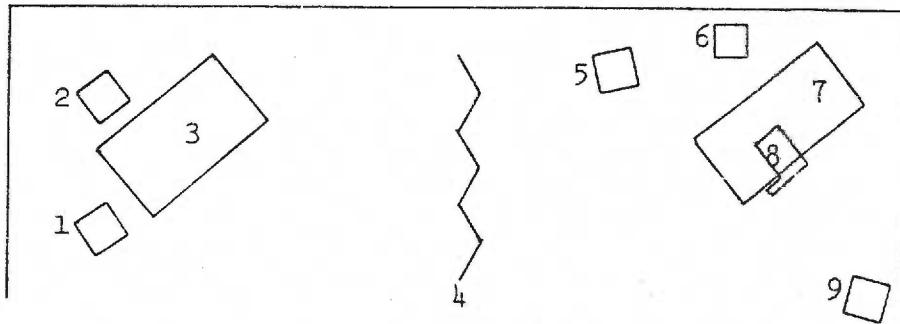
9. podium

Props

None. Have cast take chair with them when they exit, with the exception of two chairs.

Scene 13 and Scene 14

Social Worker's Office & Patient's Room



1. chair
2. chair
3. table
4. screen

5. chair
6. console
7. bed
8. over-bed table
9. podium

Props

None

Appendix D

Scene Introductions

SCENE INTRODUCTION - SCRIPT

DAY 1

SCENE 1

We begin our drama with the admission of Mr. Garcia to St. Vincent Hospital and Medical Center. Mr. Rick Garcia is being admitted for a partial gastrectomy, a consequence to a peptic ulcer of the duodenum. However, Mr. Garcia also has a history of congestive heart failure with pulmonary complications. We now see Mr. and Mrs. Garcia waiting to be admitted.

SCENE 2

The patient, once admitted to the hospital, is taken by wheelchair to the unit. Since Mr. Garcia is to have surgery performed in the morning, there is much to be done--as we see.

SCENE 3

The morning of surgery arrives. The Patient Aide and Team Leader are busy preparing Mr. Garcia for surgery--checking valuables, surgery permit and administering pre-op medication.

SCENE 4

The activity on the unit continues. Preparations must be made for the patient's return from surgery. The Patient Aide is new to the unit. Therefore, the Team Leader shows her the appropriate room set-up, as well as explains the O₂ and suction equipment needed for Mr. Garcia.

SCENE INTRODUCTION - SCRIPT

SCENE 5

With Mr. Garcia's history of pulmonary complications, suctioning equipment is available as a precautionary measure. However, the unit seldom admits patients requiring suctioning. The Team Leader, feeling unsure of current suctioning equipment and technique, invites the Educational Services Coordinator to speak at a team conference.

DAY 2SCENE 6

An important and beneficial tool in assuring quality care and continuity of care is the development of a nursing care plan. The Team Leader meets with her team to develop a plan of care for Mr. Garcia.

SCENE 7

The immediate post-operative period is a time for close and frequent observations of the patient's condition. Mr. Garcia is no exception. After several hours of surgery, he returns from the Recovery Room to the unit.

SCENE 8

It is the first day post-op and the I.V. nurse checks Mr. Garcia's I.V. site. Things seem to be running smoothly. Sometimes, hopefully not often, however, we or others react inappropriately to a situation, the results of which can be distressing to the patient.

SCENE INTRODUCTION - SCRIPT

SCENE 9

Purulent drainage was noted during the dressing change. When an infection is suspected as in this instance, a culture is taken and skin and wound isolation is set up immediately as a protection to other patients, staff, and visitors. Not only is the appropriate action important, however, but it is essential to communicate the information to the oncoming shift. We join the L.P.N. as she explains the isolation procedure to Mr. Garcia.

SCENE 10

All too often, we, as nurses, depend almost entirely on the patient's vital signs as a measurement of his condition. However, thorough chest assessment can be a means of detecting problems before they become more serious complications. Mr. Garcia is an ideal candidate for respiratory complications. Therefore, the Team Leader has scheduled a team conference on normal and abnormal chest sounds.

DAY 3SCENE 11

The unexpected behavior of patients is another tension filled situation that occurs without warning in the hospital setting. Let us look in on Mr. Garcia.

SCENE INTRODUCTION - SCRIPT

SCENE 12

It is now three days since Mr. Garcia's arrest. He is recovering well and it is time to begin planning for his discharge home in a couple of days.

The Team Leader invites the Dietician, Respiratory Therapist, Social Worker, Discharge Coordinator, the patient, and his wife to discuss his discharge.

SCENE 13

Financial problems have been delineated as the primary concern of the Garcia family. And yet, these are difficult and embarrassing to talk about in front of a large group. The Social Worker meets with Mr. Garcia to discuss possible ways of dealing with his financial situation.

SCENE 14

Mrs. Garcia has been through a great deal since her husband's hospitalization--his cardio-respiratory arrest, isolation, caring for eight children in his absence, as well as the financial needs of the family. Her anxieties and worries are compounded with his discharge. How will she care for him and the children? Will he arrest again? What should she do if he does arrest? These are concerns that she cannot discuss with her husband. The Social Worker, realizing Mrs. Garcia's anxieties are unique from her husband's, meets with her alone.

Appendix E
Entry-Level Test

ENTRY-LEVEL TEST

Date:

Name:

Instructions: In the space provided at the left, place an X in the appropriate space corresponding to the BEST answer to each test item 1 through 11.

1. Mr. Hughes will soon be going for surgery. Which of the following would you need to check on before he leaves for surgery?
 - a. Pre-operative checklist
 - b. History and physical
 - c. Radiology report
 - d. Operative permit
 - e. Laboratory results
 - f. Pre-operative medication

A. a, b, d, & f
 B. a, c, d, & f
 C. a, d, & f
 D. All of the above

2. Mrs. Brown has had oxygen therapy ordered. The specific method to use, however, has not been delineated. You have observed Mrs. Brown's color to be slightly dusky, her skin slightly cool but dry and she has some shortness of breath. Her secretions have been thin in consistency. Based on these observations, which of the following would be the most effective means of administering oxygen to Mrs. Brown?
 - A. Nasal catheter
 - B. Nasal cannula
 - C. Mask

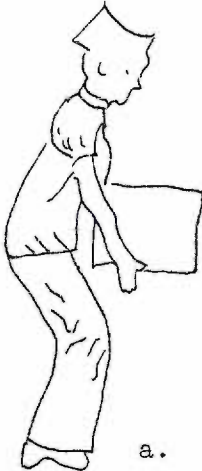
3. Under usual conditions, at what flow rate would oxygen be administered by mask?
 - A. 2-3 L./min.
 - B. 3-4 L./min.
 - C. 5-6 L./min.
 - D. 7-8 L./min.

ENTRY-LEVEL TEST

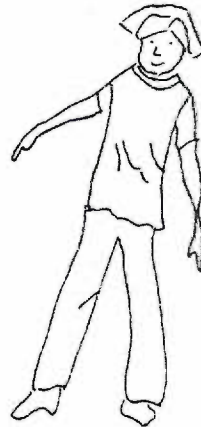
4. What usually happens to an unconscious person when he is lying on his back with a pillow under his head?
- A. His tongue falls back in his throat and blocks his airway.
 B. He aspirates vomitus into his airway.
5. List in sequence the steps followed in cardio-pulmonary resuscitation in an unwitnessed arrest.
- a. Give the precordial thump
b. Check for carotid pulse
c. Tilt the head back
d. Check for breathing
e. Begin cardiac massage
f. Clear the airway
g. Give four quick breaths
- A. c, d, b, a, g, & e
 B. c, d, g, b, & e
 C. d, b, c, g, & e
 D. d, f, c, g, b, & e
6. The diaphragm of the stethoscope transmits:
- A. Only high-pitched sounds.
 B. All sounds but particularly low-pitched sounds.
7. You have just listened to Mrs. Brown's chest sounds. You note râles in the left lower lobe. Which of the following describes this term?
- A. Crackling sound heard when fluid is present in the small bronchioles.
 B. Whistling, high-pitched, hollow sound.
 C. General term used to describe musical sounds caused by tenacious mucus.
 D. Rattle type of sound due to air moving fluid exudate.
8. As you continue to listen to Mrs. Brown's chest, you hear vesicular breath sounds in the right upper lobe. Which of the following describes this term?
- A. Inspiration louder and higher pitched than normal.
 B. Soft, low-pitched sound normally heard in the lungs.
 C. General term used to describe musical sounds caused by vibrations of tenacious mucus.
 D. Crackling sound heard when fluid is present in the small bronchioles.

ENTRY-LEVEL TEST

9. Which of the following pictures exemplifies correct body mechanics?



a.



b.

- a.
 b.

10. The licensed practical nurse changes Mr. White's dressing and notes purulent drainage. She reports this finding to you. Which type of isolation would you instruct the L.P.N. to set up?

- A. Strict
 B. Enteric
 C. Skin and wound
 D. Protective

11. Mr. Howard has just had a cardiac arrest. Where on his chest would you place the heel of your hand in order to perform chest compression?

- A. Where the sternum and collarbone meet
 B. On the xiphoid process
 C. Two or three fingers above the lower end of the sternum
 D. On the upper third of the sternum
 E. On the middle of the sternum

Appendix F
First Post-Test

FIRST POST-TEST

Date:

Name:

Instructions: In the space provided at the left, place an X in the appropriate space corresponding to the BEST answer to each of the test items 1 through 12.

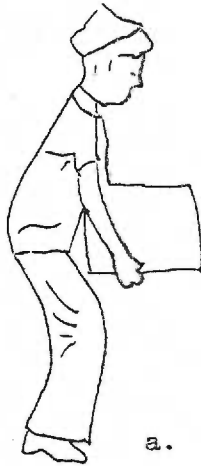
1. What usually happens to an unconscious person when he is lying on his back with a pillow under his head?
 - A. He aspirates vomitus into his airway.
 - B. His tongue falls back in his throat and blocks his airway.

2. Where on the adult chest would you place the heel of your hand in order to perform chest compression?
 - A. On the upper third of the sternum.
 - B. Where the sternum and collarbone meet.
 - C. On the xiphoid process.
 - D. Two or three fingers above the lower end of the sternum.
 - E. On the middle of the sternum.

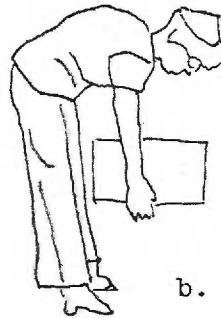
3. List in sequence the steps followed in cardio-pulmonary resuscitation in an unwitnessed arrest.
 - a. Check the carotid pulse.
 - b. Check for breathing.
 - c. Clear the airway.
 - d. Tilt the head back.
 - e. Give four quick breaths.
 - f. Give the precordial thump.
 - g. Begin cardiac massage.
 - A. b, a, d, e, g
 - B. b, c, d, e, a, g
 - C. d, b, e, a, g
 - D. d, b, a, f, e, g

FIRST POST-TEST

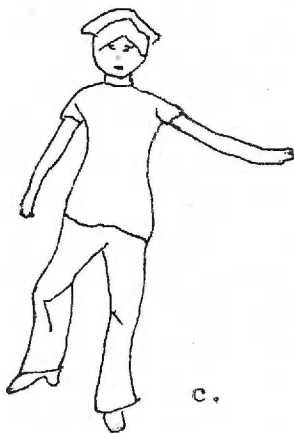
4. Which of the following pictures exemplifies correct body mechanics?



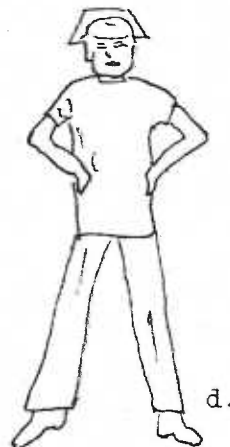
a.



b.



c.



d.

- A. a and c
 B. a and d
 C. b and c
 D. b and d

5. Mr. Jones is having surgery performed this morning. As Team Leader, which of the following would you need to check on before he is transferred to surgery?

- a. Radiology report.
 b. Laboratory results.
 c. Pre-operative checklist.
 d. History and physical.
 e. Pre-operative medication.
 f. Operative permit.

- A. a, c, e, and f
 B. c, d, e, and f
 C. c, e, and f
 D. all of the above

FIRST POST-TEST

6. Under usual conditions, at what flow rate would oxygen be administered by mask?
- A. 2-3 L./min.
 - B. 4-5 L./min.
 - C. 5-6 L./min.
 - D. 7-8 L./min.
7. The following is a list of patient diagnoses. Which of these would you consider having oxygen therapy available?
- a. Myasthenia gravis.
 - b. Splenectomy.
 - c. Pulmonary emboli.
 - d. Congestive heart failure.
 - e. Acute sinusitis.
- A. a, c, and d
 - B. a, d, and e
 - C. b, c, and e
 - D. c and e
 - E. all of the above
8. The doctor has ordered oxygen to be administered to Mrs. Crabapple. However, he did not specify the method to be used. You observe that her color is moderately cyanotic and her sputum has been thick and tenacious. Which of the following would be the most effective means of administering oxygen to Mrs. Crabapple?
- A. Mask.
 - B. Nasal cannula.
 - C. Nasal catheter.
9. Ms. Krautman is to be admitted to your unit. Since she is admitted with 2° and 3° burns, which type of isolation would you set up?
- A. Skin and wound.
 - B. Enteric.
 - C. Strict.
 - D. Protective.

FIRST POST-TEST

10. Strict isolation would be required on which of the following?
- Meningococcal meningitis.
 - Burns.
 - Viral hepatitis.
 - Pseudomonas* as predominant organism.
 - Heavily draining wound infection.
- A. a, c, and d
 B. a, d, and e
 C. b, c, and e
 D. all of the above
11. The bell of the stethoscope transmits:
- A. All sounds but particularly low-pitched sounds.
 B. Only high-pitched sounds.
12. Mrs. Green has just returned from the Recovery Room with an endotracheal tube in place. The respirator is in the room and connected to the patient. However, you discover that there is no suction equipment. Besides the suction machine, which of the following supplies would you order from Central Supply?
- Gloves.
 - Sterile water.
 - Sterile normal saline.
 - Air-flow suction catheters, size #14.
 - Red rubber Robinson suction catheters, size #16.
 - Whistle-tip suction catheters, size #14.
- A. a, b, and e
 B. a, b, and f
 C. a, c, and d
 D. a, c, and e
- Mrs. Green needs to be suctioned. She has an endotracheal tube inserted. For each of the following statements, put a T or an F on the blank in front of the statement according to whether you believe it is true (T) or false (F) in each situation.
13. _____ Since an endotracheal tube is in the nose, sterile technique is not necessary.
14. _____ The patient should be suctioned orally before the cuff is deflated.
15. _____ The cuff should be deflated for 3-5 minutes every hour.

FIRST POST-TEST

16. _____ The same catheter may be used for both oral and endotracheal tube suctioning.
17. _____ Suction should be applied while inserting the catheter.
18. _____ Re-inflate the cuff with 10cc of air to provide a good seal.
19. _____ The patient should be encouraged to cough during suctioning.

Match the appropriate definition from Column II with the related term in Column I. Place the corresponding letters next to the numbers at the left of the page.

<u>Column I</u>	<u>Column II</u>
20. _____ Vesicular	a. Crackling sound heard when fluid is in small bronchioles.
21. _____ Bronchial	b. Normal breath sounds in lungs. Soft, low-pitched, heard mainly on inspiration.
22. _____ Râles	c. General term used to describe musical sounds caused by vibrations of tenacious mucus.
23. _____ Bronchovesicular	d. Inspiration louder and higher pitched than normal. Inspiration and expiration are heard similarly.
24. _____ Crepitant	e. "Rattle" sound due to air moving fluid exudate.
25. _____ Rhonchi	f. Long expiratory phase. Whistling, high-pitched, hollow. Normally heard over trachea at back of neck.

Instructions: On each of the following supply the information requested.

26. List in sequence the procedure for admitting a patient. Transportation has just brought the patient to the nurses' station.

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____

FIRST POST-TEST

B. What measures would need to be taken to rectify this finding?

31. Mr. Brown has returned to the unit following a thyroidectomy. As team leader, what patient assessments would you make in order of priority?

Appendix G
Second Post-Test

SECOND POST-TEST

Date:

Name:

Instructions: In the space provided at the left, place an X in the appropriate space corresponding to the BEST answer to each test item 1 through 8.

1. You enter Mrs. Henry's room and find her slumped over in bed. You tilt her head back, find that she is not breathing and proceed to give her four quick breaths. The first breath is ineffective. Which of the following steps would you follow in sequence?

- a. Give a sharp blow between the shoulder blades.
- b. Give another quick breath.
- c. Check the head position.
- d. Clear the mouth.
- e. Proceed with cardiac massage.

- A. d, b, a, b, e
- B. c, b, d, b, a, d, b, e
- C. b, e, c, b, d, b, a
- D. c, d, b, e, a, d, b

2. When performing cardiac massage on an adult victim and you are the only rescuer, what heart rate do you want to maintain?

- A. 60 beats/minute
- B. 70 beats/minute
- C. 80 beats/minute
- D. 90 beats/minute

3. What ratio of cardiac compressions to respirations would you maintain when performing CPR on an infant as a single rescuer?

- A. 5:1
- B. 4:1
- C. 15:2
- D. 15:1

SECOND POST-TEST

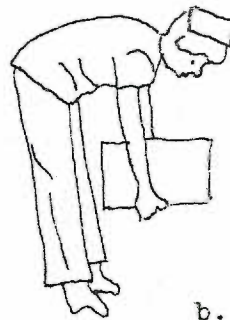
4. Mr. Brown is coughing up foul smelling sputum. The results of the culture show pseudomonas as the predominant organism. Which type of isolation would you set up?
- A. skin and wound
 - B. protective
 - C. strict
 - D. respiratory
5. George Bloom had a gastric resection performed two days ago. Even with strong encouragement, he has not coughed effectively since surgery. His chest sounds denote bronchial breath sounds in the left lower lobe. His nailbeds have become moderately cyanotic. Which of the following should be considered to rectify these observations?
- a. Naso-tracheal suctioning.
 - b. Oxygen therapy by nasal cannula.
 - c. Intermittent positive pressure breathing.
 - d. Oxygen therapy by mask.
 - e. Insertion of an endotracheal tube.
 - f. Continuous oxygen by respiratory assistance.
- A. a, b, and c
 - B. a, c, and d
 - C. c and d
 - D. c, e, and f
6. Mr. Smith is having surgery performed this morning. As Team Leader, which of the following would you need to check on before he is transferred to surgery?
- a. Radiology report.
 - b. Laboratory results.
 - c. Pre-operative checklist.
 - d. History and physical.
 - e. Pre-operative medication.
 - f. Operative permit.
- A. a, c, e, and f
 - B. c, d, e, and f
 - C. c, e, and f
 - D. all of the above

SECOND POST-TEST

7. Which of the following picture(s) exemplifies correct body mechanics?



a.



b.

- A. a only
 B. b only
 C. Both a and b

8. The diaphragm of the stethoscope transmits:

- A. All sounds but particularly low-pitched sounds.
 B. Only high-pitched sounds.

Mrs. Haughton has a tracheostomy. For each of the following statements, put a T or an F on the blank in front of each statement according to whether you believe it is true (T) or false (F) in each situation.

9. The patient should not cough during suctioning.
10. The stoma should be cleansed with H_2O_2 and a sterile dressing with Neosporin spray applied.
11. Never deflate the cuff until the oronasal pharynx has been suctioned.
12. The cuff should be deflated 3-5 minutes every four hours.
13. Suction should be applied with an "in and out" motion.
14. The cuff should be deflated when the respirator is not in use.
15. The cuff should be reinflated with 3-5cc of air.

SECOND POST-TEST

Match the appropriate definition from Column II with the related term in Column I. Place the corresponding letters next to numbers at the left of the page.

<u>Column I</u>	<u>Column II</u>
16. _____ Rhonchi	a. Long expiratory phase. Whistling, high-pitched, hollow sound. Normally heard over trachea at back of neck.
17. _____ Crepitant	b. General term used to describe musical sounds caused by vibrations of tenacious mucus.
18. _____ Râles	c. "Rattle" sound due to air moving fluid exudate.
19. _____ Bronchial	d. Inspiration louder and higher pitched than normal. Inspiration and expiration are heard similarly.
20. _____ Vesicular	e. Normal breath sounds in lungs. Soft, low-pitched, heard mainly on inspiration.
	f. Crackling sound heard when fluid is in small bronchioles.

Instructions: On each of the following, supply the information requested.

21. A. You have just listened to Mr. White's chest sounds. You note crepitant râles in the right upper and middle lobes, absence of breath sounds in the right lower lobe and vesicular breath sounds on the left side. What significance is this?

B. What measures should be considered to rectify these findings? (Include possible doctor's orders.)

Appendix H

Objectives of Orientation Program

OBJECTIVES OF ORIENTATION PROGRAM FOR NEW GRADUATES

To recognize the procedure for admitting a patient to the unit.

To list criteria utilized in the patient interview.

To recognize the essential steps of preparing a patient for surgery.

To list in order the steps for the correct method of administering a medication.

To name the steps used in administering a narcotic.

To choose the correct route of administering oxygen in a given situation.

To evaluate the need for oxygen therapy given specific patient diagnoses.

To recognize the principles of tracheal suctioning.

To define the term "tracheostomy care."

To choose the appropriate suctioning equipment used in nasotracheal, tracheal, and endotracheal suctioning.

To determine the correct flow rate at which O₂ is administered under normal conditions.

To develop a nursing care plan given a specific case study of a patient.

To recognize the principles of proper body mechanics.

To evaluate the specific patient assessments needed in a given patient situation.

OBJECTIVES OF ORIENTATION PROGRAM FOR NEW GRADUATES

To recall the appropriate action taken when purulent drainage is noted during a sterile dressing change.

To perform a sterile dressing change.

To choose the correct type of isolation to be used in a specific situation.

To define the terminology used in describing chest sounds.

To describe the course of action to be taken when abnormal chest sounds are noted.

To evaluate the significance of abnormal chest findings.

To enumerate the steps followed in cardio-pulmonary resuscitation technique.

To perform cardio-pulmonary resuscitation on a mannikin.

Appendix I

Comparison of Content Questions with
Level of Cognitive Domain

Table A

Comparison of Content Questions
With the Level of Cognitive Domain

Content	Entry-Level Test	Post-Test	Second Post-Test
1.0 Admission of Patient		Knowledge of Methodology(1) ^a	
1.1 Patient Interview		Knowledge of Criteria(1)	Knowledge of Criteria(1)a
2.0 Pre-Operative Preparation	Knowledge of Methodology(1) ^a	Knowledge of Methodology(1)	Knowledge of Methodology(1)
3.0 Administration of Medication	Knowledge of Methodology(1)	Knowledge of Methodology(1)	
3.1 Narcotic Procedure			Knowledge of Methodology(1)
4.0 Oxygen Therapy	Knowledge of Criteria(1) Application of Knowledge(1)	Knowledge of Criteria(1) Application of Knowledge(2)	Application of Knowledge(1)
5.0 Suctioning Technique	Knowledge of Terminology(1) Knowledge of Principles(5)	Knowledge of Terminology(1) Knowledge of Methodology(1) Knowledge of Principles(7)	Knowledge of Principles(5) Application of Knowledge(2)
6.0 Body Mechanics	Knowledge of Principles(1)	Knowledge of Principles(1)	Knowledge of Principles(1)
7.0 Patient Assessment		Application of Knowledge(1)	Application of Knowledge(1)
7.1 Charting	Knowledge of Criteria(1)	Knowledge of Criteria(1)	Application of Knowledge(1)
8.0 Isolation	Knowledge of Criteria(1)	Knowledge of Criteria(2) Application of Knowledge(1)	Application of Knowledge(1)
9.0 Chest Assessment	Knowledge of Terminology(3)	Knowledge of Terminology(7) Application of Knowledge(1)	Knowledge of Terminology(6) Application of Knowledge(2)
10.0 Cardio-Pulmonary Resuscitation	Knowledge of Methodology(2) Knowledge of Principles(1)	Knowledge of Methodology(2) Knowledge of Principles(1)	Knowledge of Methodology(1) Knowledge of Principles(1) Application of Knowledge(1)

Note: ^aNumbers in () indicate the number of test items in that category.

Appendix J

Evaluation of Orientation Program

EVALUATION OF ORIENTATION PROGRAM

Instructions: The purpose of this evaluation is to measure your attitudes toward the three-day orientation program. A specific concept relating to the program will be given on each page followed by a series of descriptive scales. You are to rate the concept on each of the scales.

For example, if you feel the descriptive word at one or the other end of the scale is very closely related to your attitude about the concept at the top of the page, you place an X as follows:

Hospital

fair X : _____ : _____ : _____ : _____ : _____ : _____ unfair

or

fair _____ : _____ : _____ : _____ : _____ : _____ : X unfair

If you feel that one end of the scale or the other is quite closely related, you place your X as follows:

ugly _____ : _____ : _____ : _____ : _____ : X : _____ beautiful

or

ugly _____ : X : _____ : _____ : _____ : _____ : _____ beautiful

If you feel neutral about the concept, both sides equally describe the concept, or the descriptive words are completely irrelevant, then place your mark in the middle space:

large _____ : _____ : _____ : X : _____ : _____ : _____ small

Occasionally, you may feel that you have had the same or similar item earlier in the evaluation. However, do not look back and forth between items. Make each response a separate and independent judgment.

INSTRUCTIONAL METHOD

1. Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
2. Sour _____ : _____ : _____ : _____ : _____ : _____ : _____ Sweet
3. Cold _____ : _____ : _____ : _____ : _____ : _____ : _____ Hot
4. Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
5. Strong _____ : _____ : _____ : _____ : _____ : _____ : _____ Weak
6. Clear _____ : _____ : _____ : _____ : _____ : _____ : _____ Hazy
7. Light _____ : _____ : _____ : _____ : _____ : _____ : _____ Heavy
8. Rough _____ : _____ : _____ : _____ : _____ : _____ : _____ Smooth
9. Fast _____ : _____ : _____ : _____ : _____ : _____ : _____ Slow
10. Sad _____ : _____ : _____ : _____ : _____ : _____ : _____ Happy
11. Active _____ : _____ : _____ : _____ : _____ : _____ : _____ Passive
12. Distasteful _____ : _____ : _____ : _____ : _____ : _____ : _____ Tasty

MY INVOLVEMENT

1. Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
2. Sour _____ : _____ : _____ : _____ : _____ : _____ : _____ Sweet
3. Cold _____ : _____ : _____ : _____ : _____ : _____ : _____ Hot
4. Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
5. Strong _____ : _____ : _____ : _____ : _____ : _____ : _____ Weak
6. Clear _____ : _____ : _____ : _____ : _____ : _____ : _____ Hazy
7. Light _____ : _____ : _____ : _____ : _____ : _____ : _____ Heavy
8. Rough _____ : _____ : _____ : _____ : _____ : _____ : _____ Smooth
9. Fast _____ : _____ : _____ : _____ : _____ : _____ : _____ Slow
10. Sad _____ : _____ : _____ : _____ : _____ : _____ : _____ Happy
11. Active _____ : _____ : _____ : _____ : _____ : _____ : _____ Passive
12. Distasteful _____ : _____ : _____ : _____ : _____ : _____ : _____ Tasty

SUBJECT MATTER

1. Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
2. Sour _____ : _____ : _____ : _____ : _____ : _____ : _____ Sweet
3. Cold _____ : _____ : _____ : _____ : _____ : _____ : _____ Hot
4. Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
5. Strong _____ : _____ : _____ : _____ : _____ : _____ : _____ Weak
6. Clear _____ : _____ : _____ : _____ : _____ : _____ : _____ Hazy
7. Light _____ : _____ : _____ : _____ : _____ : _____ : _____ Heavy
8. Rough _____ : _____ : _____ : _____ : _____ : _____ : _____ Smooth
9. Fast _____ : _____ : _____ : _____ : _____ : _____ : _____ Slow
10. Sad _____ : _____ : _____ : _____ : _____ : _____ : _____ Happy
11. Active _____ : _____ : _____ : _____ : _____ : _____ : _____ Passive
12. Distasteful _____ : _____ : _____ : _____ : _____ : _____ : _____ Tasty

CAST PARTICIPANTS

1. Good _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
2. Sour _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Sweet
3. Cold _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Hot
4. Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
5. Strong _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Weak
6. Clear _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Hazy
7. Light _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Heavy
8. Rough _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Smooth
9. Fast _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Slow
10. Sad _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Happy
11. Active _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Passive
12. Distasteful _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ Tasty

WHAT I LEARNED

1. Good _____:_____ : _____:_____ : _____:_____ : _____:_____ Bad
2. Sour _____:_____ : _____:_____ : _____:_____ : _____:_____ Sweet
3. Cold _____:_____ : _____:_____ : _____:_____ : _____:_____ Hot
4. Valuable _____:_____ : _____:_____ : _____:_____ : _____:_____ Worthless
5. Strong _____:_____ : _____:_____ : _____:_____ : _____:_____ Weak
6. Clear _____:_____ : _____:_____ : _____:_____ : _____:_____ Hazy
7. Light _____:_____ : _____:_____ : _____:_____ : _____:_____ Heavy
8. Rough _____:_____ : _____:_____ : _____:_____ : _____:_____ Smooth
9. Fast _____:_____ : _____:_____ : _____:_____ : _____:_____ Slow
10. Sad _____:_____ : _____:_____ : _____:_____ : _____:_____ Happy
11. Active _____:_____ : _____:_____ : _____:_____ : _____:_____ Passive
12. Distasteful _____:_____ : _____:_____ : _____:_____ : _____:_____ Tasty

DISCUSSION SESSIONS

1. Good _____ : _____ : _____ : _____ : _____ : _____ : _____ Bad
2. Sour _____ : _____ : _____ : _____ : _____ : _____ : _____ Sweet
3. Cold _____ : _____ : _____ : _____ : _____ : _____ : _____ Hot
4. Valuable _____ : _____ : _____ : _____ : _____ : _____ : _____ Worthless
5. Strong _____ : _____ : _____ : _____ : _____ : _____ : _____ Weak
6. Clear _____ : _____ : _____ : _____ : _____ : _____ : _____ Hazy
7. Light _____ : _____ : _____ : _____ : _____ : _____ : _____ Heavy
8. Rough _____ : _____ : _____ : _____ : _____ : _____ : _____ Smooth
9. Fast _____ : _____ : _____ : _____ : _____ : _____ : _____ Slow
10. Sad _____ : _____ : _____ : _____ : _____ : _____ : _____ Happy
11. Active _____ : _____ : _____ : _____ : _____ : _____ : _____ Passive
12. Distasteful _____ : _____ : _____ : _____ : _____ : _____ : _____ Tasty

Appendix K

Factor Loadings of Scales

Table B
 Factor Loading of Scales Utilized
 in the Evaluation of the Orientation Program

Scales	Factor			Major Factor
	Evaluative	Potency	Activity	
good-bad	.88	.05	.09	E
sweet-sour	.83	-.14	-.09	E
hot-cold	-.04	-.06	.46	A
valuable-worthless	.79	.04	.13	E
strong-weak	.19	.62	.20	P
clear-hazy	.59	.03	.10	E
heavy-light	-.36	.62	-.11	P
smooth-rough	-.46	.36	.29	P
fast-slow	.01	.00	.70	A
happy-sad	.76	-.11	.00	E
active-passive	.14	.04	.59	A
tasty-distasteful	.77	.05	-.11	E

Note: The data in columns 1, 2, 3 are from Osgood, Suci, and Tannenbaum, 1975. Total number of scales for each factor: Evaluative = 6; Potency = 3; Activity = 3.

Appendix L

Interview Guide and Rating Scale

INTERVIEW GUIDE FOR NEW GRADUATES

Name of Orientee:
Evaluator:
Unit:
Date:

Instructions: I want to ask you a few questions about X. Try to be as specific as possible with your answers. Since I am doing my thesis on the orientation and would like to have your answers for later reference, I would like to tape our conversation.

1. A. How is X performing on the unit?
2. A. Are there any problem areas?
B. Have these problems been discussed with X?

Instructions: I want to read this rating scale (give evaluator a copy) with you. As you see, each rating is specifically defined. I will be referring to this rating scale as we go along. Do you have any questions? If you have any questions at any time, please stop me to ask at that time.

3. Using the rating scale as your guide, how would you rate X's performance?

5 - Excellent
4 - Very good
3 - Good or average
2 - Fair
1 - Poor
4. Do you feel the orientation program was helpful in preparing X for the unit?

A. Very
B. Some
C. Very little
D. Don't know
5. A. Have you personally oriented new graduate nurses to the clinical area in the past? ___ Yes ___ No

B. Approximately how long ago? _____ (Months, Years)

INTERVIEW GUIDE FOR NEW GRADUATES

C. Was the new graduate from the same school of nursing?
 Yes No

D. Has there been a difference in orienting X to the unit in comparison to other new graduates? Yes No

E. What do you attribute this difference to?

6. I will read you a list of nursing procedures and team leading responsibilities. Referring to the rating scale given to you, please respond by rating X's competency in each area.

The new graduate may not have performed all of the following; the procedure may not be done on your unit, or you may not have observed X actually doing the procedure. In this case give a 0 rating.

- 5 - Excellent
- 4 - Very good
- 3 - Good or average
- 2 - Fair
- 1 - Poor

A. Patient interview	5	4	3	2	1	0
B. Pre-operative teaching	5	4	3	2	1	0
C. Pre-operative preparation	5	4	3	2	1	0
D. Medication administration	5	4	3	2	1	0
E. Narcotic procedure	5	4	3	2	1	0
F. Patient assessment	5	4	3	2	1	0
G. Sterile dressing technique	5	4	3	2	1	0
H. Development of nursing care plans	5	4	3	2	1	0
I. Taped report	5	4	3	2	1	0
J. Team conference	5	4	3	2	1	0
K. Admission procedure	5	4	3	2	1	0
L. Discharge planning	5	4	3	2	1	0
M. Discharge procedure	5	4	3	2	1	0
N. Set up of oxygen equipment	5	4	3	2	1	0
O. Suctioning technique	5	4	3	2	1	0
P. Chest assessment	5	4	3	2	1	0
Q. Isolation set up	5	4	3	2	1	0
R. Correct body mechanics	5	4	3	2	1	0
S. Performance in "Code 99"	5	4	3	2	1	0

RATING SCALE5 - Excellent

Consistently performs with competency. Completes procedure(s) on schedule. Is thorough and accurate.

4 - Very good

Usually performs with competency. Rarely makes errors. Rarely behind schedule in completing procedure(s). Usually thorough and accurate.

3 - Good or average

Needs some work on competency. However, 70% of the time performs competently. Needs more time in keeping on schedule. Occasionally falls behind in completing procedure(s). Occasionally makes errors and/or omissions.

2 - Fair

Fifty percent of time performs competently. Frequently behind schedule in completing procedure(s). Has difficulty keeping up with pace. Frequently (50% of time) omits part of procedure(s) and/or makes errors.

1 - Poor

Usually performs incompetently--more than 50% of the time. Cannot complete procedure(s) on schedule. Late in starting and slow in doing procedure(s). Over 50% of time omits part of procedure(s) or entire procedure. Makes frequent errors. Performs procedure(s) inaccurately even after several explanations.

0 - Non-applicable

Does not apply to specific unit. Has not performed procedure yet. Have not directly observed procedure being performed.

Appendix M

Item Difficulty and Discriminating

Power of Entry-Level Test

Table C
 Percentage of Item Difficulty & Discriminating Power
 on Entry-Level Test for Combined Group Scores

Test Item	Item Difficulty ^a	Discriminatory Power		
		Above <u>Mdn</u> ^b	Below <u>Mdn</u>	Power ^c
1.	71%	80% ^d	60% ^d	+
2.	76%	100%	60%	+
3.	33%	40%	20%	+
4.	62%	80%	40%	+
5.	0%	0%	0%	0
6.	14%	30%	0%	+
7.	48%	50%	50%	0
8.	52%	60%	40%	+
9.	95%	100%	90%	0
10.	95%	100%	90%	0
11.	76%	90%	60%	+
12.	43%	30%	60%	-
13.	71%	90%	50%	+
14.	100%	100%	100%	0

Table C - Continued

Test Item	Item Difficulty ^a	Discriminatory Power		
		Above <u>Mdn</u> ^b	Below <u>Mdn</u>	Power ^c
15.	43%	50%	30%	+
16.	95%	90%	100%	0

Note: Scores are combined from first and second groups

^aAverage item difficulty = 61%

^bMdn = 60

^c+ = Significantly positive

- = Significantly negative

0 = No significant

^dIndicates % of persons above or below Mdn answering item correctly

Appendix N
Item Difficulty and Discriminating
Power of First Post-Test

Table D
 Percentage of Item Difficulty & Discriminating Power
 on First Post-Test for Combined Group Scores

Test Item	Item Difficulty ^a	Discriminatory Power		
		Above <u>Mdn</u> ^b	Below <u>Mdn</u>	Power ^c
1.	90%	90% ^d	90% ^d	0
2.	100%	100%	100%	0
3.	57%	70%	50%	+
4.	100%	100%	100%	0
5.	90%	90%	90%	0
6.	81%	80%	80%	0
7.	62%	60%	60%	0
8.	95%	100%	90%	0
9.	95%	100%	90%	0
10.	62%	90%	30%	+
11.	90%	90%	90%	0
12.	95%	100%	90%	0
13.	100%	100%	100%	0
14.	100%	100%	100%	0
15.	95%	90%	100%	0

Table D - Continued

Test Item	Item Difficulty ^a	Discriminatory Power		
		Above <u>Mdn</u> ^b	Below <u>Mdn</u>	Power ^c
16.	100%	100%	100%	0
17.	95%	100%	90%	0
18.	100%	100%	100%	0
19.	100%	100%	100%	0
20.	100%	100%	100%	0
21.	86%	100%	70%	+
22.	67%	90%	40%	+
23.	90%	100%	80%	+
24.	81%	100%	60%	+
25.	71%	90%	50%	+

Note: Scores are combined from first and second groups

^aAverage item difficulty = 88%

^bMdn = 83.5

^c+ = Significantly positive

- = Significantly negative

0 = No significance

^dIndicates % of persons above or below Mdn answering item correctly

Appendix O

Item Difficulty and Discriminating

Power of Second Post-Test

Table E
 Percentage of Item Difficulty & Discriminating Power
 on Second Post-Test for Combined Group Scores

Test Item	Item Difficulty ^a	Discriminating Power		
		Above <u>Mdn</u> ^b	Below Mdn	Power ^c
1.	67%	80% ^d	50% ^d	+
2.	24%	30%	10%	+
3.	33%	30%	40%	0
4.	62%	70%	60%	0
5.	62%	70%	60%	0
6.	91%	100%	80%	+
7.	100%	100%	100%	0
8.	57%	50%	60%	0
9.	100%	100%	100%	0
10.	95%	100%	90%	0
11.	86%	80%	90%	0
12.	67%	70%	70%	0
13.	48%	70%	30%	+
14.	33%	50%	20%	+
15.	48%	60%	30%	+

Table E - Continued

Test Item	Item difficulty ^a	Discriminatory Power		
		Above <u>Mdn</u> ^b	Below <u>Mdn</u>	Power ^c
16.	76%	100%	50%	+
17.	76%	100%	60%	+
18.	86%	100%	80%	+
19.	76%	100%	50%	+
20.	95%	100%	90%	0

Note: Scores are combined from first and second groups

^aAverage item difficulty = 69%

^bMdn = 61

^c+ = Significantly positive

- = Significantly negative

0 = No significance

^dIndicates % of persons above or below Mdn answering item correctly

Appendix P

Distance - Matrix Clusters of Evaluation
of the Orientation Program

Distance Matrix Clusters of Evaluation
of the Orientation Program

Orientee	Clusters		Unrelated Concepts	
	Letter	Name of Concept	Letter	Name of Concept
1.	A,D	Instructional Method	B	My Involvement
		Cast Participants	C	Subject Matter
			E	What I Learned
			F	Discussion Sessions
2.	A,B	Instructional Method	D	Cast Participants
		My Involvement		
	C,E,F	Subject Matter		
		What I Learned		
3.	A,B,C,E,F*	Instructional Method		
		My Involvement		
		Subject Matter		
		What I Learned		
		Discussion Sessions*		
	D,F*	Cast Participants		
4.	A,B,C,E,F*	Instructional Method		
		My Involvement		
		Subject Matter		
		What I Learned		
		Discussion Sessions*		
	D,F*	Cast Participants		
	Discussion Sessions*			

Distance Matrix Clusters of Evaluation of the Orientation Program - Continued

Orientees	Clusters		Unrelated Concepts	
	Letter	Name of Concept	Letter	Name of Concept
5.	A,B,C	Instructional Method	D	Cast Participants
		My Involvement	E	What I Learned
		Subject Matter	F	Discussion Sessions
6.	C,E	Subject Matter	A	Instructional Method
		What I Learned	B	My Involvement
	D,F	Cast Participants		
		Discussion Sessions		
7.	C,E,F	Subject Matter	A	Instructional Method
		What I Learned	B	My Involvement
		Discussion Sessions	D	Cast Participants
8.	A,F*	Instructional Method	B	My Involvement
		Discussion Sessions*		
	C,D,E,F*	Subject Matter		
		Cast Participants		
		What I Learned		
		Discussion Sessions*		
9.	A,B*,C,E	Instructional Method	D	Cast Participants
		My Involvement*		
		Subject Matter		
		What I Learned		
	B*,F	My Involvement*		
		Discussion Sessions		
10.	C,D,E	Subject Matter	B	My Involvement
		Cast Participants		
		What I Learned		
	A,F	Instructional Method		
		Discussion Sessions		

Distance Matrix Clusters of Evaluation of the Orientation Program - Continued

Orientee	Clusters		Unrelated Concepts	
	Letter	Name of Concept	Letter	Name of Concept
11.	A,B	Instructional Method		
		My Involvement		
	C,D,E,F	Subject Matter		
		Cast Participants		
		What I Learned		
	Discussion Sessions			
12.	A,C,E*,F	Instructional Method	B	My Involvement
		Subject Matter		
		What I Learned*		
	D,E*	Cast Participants		
		What I Learned*		
13.	A,B,E,F	Instructional Method		
		My Involvement		
		What I Learned		
		Discussion Sessions		
	C,D	Subject Matter		
		Cast Participants		
14.	A,B,C,D,E	Instructional Method	F	Discussion Sessions
		My Involvement		
		Subject Matter		
		Cast Participants		
		What I Learned		
15.	A,B,E,F	Instructional Method	C	Subject Matter
		My Involvement	D	Cast Participants
		What I Learned		
		Discussion Sessions		

Distance Matrix Clusters of Evaluation of the Orientation Program - Continued

Orientee	Clusters		Unrelated Concepts	
	Letter	Name of Concept	Letter	Name of Concept
16.	A,B,C,D,E,F	All Concepts		
17.	A,B,C,D,E,F	All Concepts		
18.	A,B,C,D,E	Instructional Method My Involvement Subject Matter Cast Participants What I Learned	F	Discussion Sessions
19.	A,C,D	Instructional Method Subject Matter Cast Participants		
	B,E,F	My Involvement What I Learned Discussion Sessions		
20.	C,D	Subject Matter Cast Participants	A	Instructional Method
	E,F	What I Learned Discussion Sessions	B	My Involvement
21.	A,C	Instructional Method Subject Matter	B	My Involvement
			D	Cast Participants
			E	What I Learned
			F	Discussion Sessions

*Indicates concept included in two clusters.

Appendix Q

Results of Staff Nurse Interviews

General and Specific Procedural Ratings on Interviews

Orientee	General Rating ^b	Specific Procedural Ratings ^a																Total # Responses	Response Averages			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P			Q	R	S
1. ^c	3.5	4	3	3	4	3.5	3	-	-	-	-	4	-	-	5	3.5	3	-	3.5	-	11	3.59
2.	3.0	4	-	-	2	3	3	-	-	4	-	4	-	-	3	2	3	4	4	-	11	3.27
3.	3.0	3	-	3	3	3	2	-	2	3	3	3	-	3	-	-	3	-	-	-	11	2.82
4.	4.0	4	5	5	-	4	4	4	4	4	-	4	-	4	4	4	4	3	5	-	15	4.13
5.	3.0	-	-	-	3	4	3	-	4	3	-	-	-	-	4	3	-	3	-	-	8	3.38
6.	4.0	4	-	4	4	3	4	-	-	4	-	-	-	3	-	-	-	3	-	-	8	3.63
7.	3.0	3	-	3	4	4	2	-	-	3	-	-	-	-	-	-	-	-	-	-	6	3.17
8.	4.0	-	-	4	4	4	4	2	3	-	-	1	3	3	3	2	4	4	4	-	14	3.14
9.	3.0	-	-	-	4	4	3	-	4	-	3	-	3	3	3	3	-	3	-	-	11	3.27
10.	3.0	-	-	-	4	3	2	3	-	2	-	4	-	4	-	-	-	3	4	-	9	3.22
11.	4.0	-	3	3	4	-	4	4	-	3	-	-	-	-	-	-	-	3	4	-	8	3.50
12.	4.0	-	3	3	4	-	4	4	-	3	-	-	-	-	-	-	-	3	4	-	8	3.50
13. ^c	4.0	-	-	-	4	4	3	4	-	3.5	-	3	-	4	-	3.5	3	-	3.5	-	10	3.55
14. ^c	4.0	-	3	5	4	4	3.5	4	-	-	-	4	-	4	-	-	4	5	4	-	11	4.05
15. ^c	4.5	2	-	3.5	4	4.5	3	-	-	-	-	3	-	4	-	-	-	-	3	-	8	3.38
16. ^c	3.5	-	-	-	3.5	4.5	3.5	-	-	-	-	-	-	3	-	3	3	-	4	-	7	3.50
17. ^c	4.0	3	-	4	4	4.5	3	-	4	-	4	-	-	3.5	4	-	-	4	-	-	10	3.80
18. ^c	4.5	4	-	4	5	5	4	5	4	4	-	4	-	3	-	-	5	5	4.5	-	13	4.35

General and Specific Procedural Ratings on Interviews - Continued

Orientee	General Rating ^b	Specific Procedural Ratings ^a																	Total # Responses	Response Averages		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q			R	S
19. ^c	3.5	4.5	-	-	3.5	4	4	5	-	4	-	3	-	-	4	-	-	-	4	-	9	4.00
20. ^c	4.5	5	-	4	5	4	4.5	-	3	4	-	5	-	5	-	5	4	4.5	5	-	13	4.46
21. ^c	4.0	4	-	4	4	4	3.5	-	4	3.5	4	4	4	-	-	4	-	-	4	-	13	3.92
Total Responses		12	5	14	20	19	21	10	8	16	3	13	2	14	6	10	13	10	10	0	214	
Group Means																						3.60

^aResults from item 6 on Interview Guide

^bResults from question 3 on Interview Guide

^cCombined scores of two interviews

Open-Ended Question Results of Interview

Orienteer	General Information (Questions 1 & 2)	Benefits of Program (Question 4)	Comparison of Present Graduate With Past Graduates (Question 5)
1. ^c	Doing very well, asks questions; anxiety level high	Unknown ¹	Continuity lacking with present graduate ¹
2.	Doing well; no problems	Unknown ²	Never oriented graduate before ²
3.	Very well; slow in medications and priorities	Unknown	Individual differences; present graduate more intelligent
4.	Above average	Some	Orientation more organized now
5.	Very good	Very much	Present graduate had previous experience
6.	Very competent	Unknown	Never oriented graduate before
7.	Needs more experience; slow	Some	Never oriented graduate before
8.	Very good; needs exposure to basic skills	Very much	Individuality
9.	Good; somewhat slow	Unknown	Orientation longer and more organized now
10.	Difficulty with priorities, organization, reporting	Unknown	Never oriented graduate before
11.	Very well	Very much	Never oriented graduate before
12.	Very well; somewhat slow	Very much	Department orientation better
13. ^c	Fairly well; not aggressive enough; behind other graduates	Some ¹	Unit orientation better
14. ^c	Very good	No difference ¹	No difference ¹
		Unknown ²	Personality difference ²
		Unknown ¹	No difference ¹
		Unknown ²	Orientation more organized now ²

Open-Ended Question Results of Interview - Continued

Orientee	General Information (Questions 1 & 2)	Benefits of Program (Question 4)	Comparison of Present Graduate With Past Graduates (Question 5)
15. c	Anxiety level high; very conscientious; performing well	Very much ¹ Some ²	Orientation more organized now ¹ Never oriented graduate before ²
16. c	Fairly well; organization needs work	Unknown ¹ Unknown ²	Orientation more organized now ¹ Never oriented graduate before ²
17. c	Doing well for new graduate	Very much ¹ Unknown ²	Other graduate had previous experience on unit ^{1&2}
18. c	Doing very well	Very much ¹ Some ²	Never oriented graduate before ^{1&2}
19. c	Very well	Very much ¹ Unknown ²	Other graduate had previous experience ¹ Longer orientation now ²
20. c	Very well; observant, takes initiative	Very much ¹	Type of school--present graduate had more clinical experience ¹ Never oriented graduate before ²
21. c	Very well	Very much ¹ Very much ²	Present graduate has more varied experience ¹ Never oriented graduate before ²

Note: 1 = First interview

2 = Second interview

c = Combined results of two interviews

Appendix R

Comparison of New Graduate's Level of Education,
Experience, Cognitive Tests, and Interview Results

Table F

Comparison of New Graduate's Level of Education, Experience
Cognitive Tests and Interview Results

Orientees	Level of Education	Experience at		Cognitive Tests			Interview Results	
		Study Hospital	Other Hospital	Entry-Level Test	First Post-Test	Second Post-Test	General Rating	Specific Rating Averages
1.	Baccalaureate	Student-N.A. ^a	-	66	81.5	60	3.5	3.59
2.	Baccalaureate	Student-N.A.	-	63	91	78	3.0	3.27
3.	Baccalaureate	Student-N.A.	-	54	79.5	57	3.0	2.82
4.	Baccalaureate	Student-N.A.	-	60	83	61	4.0	4.13
5.	Baccalaureate	-	N.A. ^a	59	89	71	3.0	3.38
6.	Associate	-	-	57	78	71	4.0	3.63
7.	Baccalaureate	-	-	52	81	63	3.0	3.17
8.	Baccalaureate	-	N.A.	47	86	57	4.0	3.14
9.	Diploma	-	N.A.	67	84.5	70	3.0	3.27
10.	Baccalaureate	Student	-	52	63	36	3.0	3.22
11.	Diploma	-	N.A.	55	84	53	4.0	3.50
12.	Baccalaureate	-	-	82	80.5	60	4.0	3.50
13.	Baccalaureate	-	N.A.	77	86.5	52	4.0	3.55
14.	Associate	N.A.	-	66	86	56	4.0	4.05
15.	Baccalaureate	-	N.A.	69	91.5	76	4.5	3.38

Table F - Continued

Orientees	Level of Education	Experience at		Entry-Level Test	Cognitive Tests		Interview Results	
		Study Hospital	Other Hospital		First Post-Test	Second Post-Test	General Rating	Specific Rating Averages
16.	Diploma	-	N.A.	71	83.5	62	3.5	3.50
17.	Diploma	-	N.A.	51	67.5	53	4.0	3.80
18.	Diploma	-	N.A.	77	78.5	65	4.5	4.35
19.	Diploma	-	N.A.	56	84	60	3.5	4.00
20.	Baccalaureate	-	N.A.	49	85	75	4.5	4.46
21.	Diploma	N.A.	-	61	74	69	4.0	3.92
Means				61.48	81.79	62.14	3.71	3.60

N.A. = Nursing Assistant


AN ABSTRACT OF THE FIELD STUDY

OF CAROL WALDRAM HAMBLET

For the: MASTER OF NURSING DEGREE

Date of Receiving this Degree: June 11, 1976

Title: A THEATRICAL APPROACH TO THE ORIENTATION OF NEW GRADUATE NURSES

Approved: 

Barbara C. Gaines, Ph.D., Association Professor, Field Study
Advisor

The purpose of the field study was to develop and test dramatization as an innovative approach to the orientation of new graduate nurses to the hospital setting. New graduate nurses were chosen as the population of the study since a large number of new graduates are hired at the study institution in the months of May and June.

The innovative, theatrical approach to orientation was demonstrated to be an effective means of orienting new graduate nurses to the hospital setting, as measured by three cognitive tests, evaluations, and interviews of staff nurses. The level of education of the new graduates was also compared with the tests and interview results. Level of education was not an influencing factor on the results of the cognitive tests. However, education did affect the interview ratings. Baccalaureate graduates received lower ratings.

Since a control group was not available for the present study, the researcher recommends that the theatrical approach to orientation be compared with the lecture-film method in a controlled study.