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An Investigation of Teaching Behaviors and Personal Characteristics of Nursing Instructors in the Clinical Setting That Facilitate the Learning of Baccalaureate Nursing Students

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AN INVESTIGATION OF TEACHING BEHAVIORS AND PERSONAL CHARACTERISTICS

OF NURSING INSTRUCTORS IN THE CLINICAL SETTING THAT FACILITATE

THE LEARNING OF BACCALAUREATE NURSING STUDENTS

by

Patricia Ruttkay

A Dissertation Submitted to the Faculty of the School of Education

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May

1987

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Loyola University of Chicago

AN INVESTIGATION OF TEACHING BEHAVIORS AND PERSONAL CHARACTERISTICS

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This study addresses the following issue: Are the teaching behaviors identified in the nursing literature sufficient to define what characterizes the effective clinical instructor? Or are other behaviors necessary for effective clinical teaching?

In a preliminary qualitative study, nursing students identified 18 teaching behaviors and 14 personal characteristics of nursing instructors in the clinical setting that either facilitated or inhibited their learning. Using an instrument with a Likert-type scale, a survey of 483 baccalaureate nursing students was conducted to determine the degree to which their learning was facilitated by these 18 teaching behaviors and 14 personal characteristics. A Cronbach alpha statistical test was performed on the data to determine the internal consistency of the instrument used in the study. The 18 teaching behaviors were intercorrelated at an alpha of .90; the 14 personal characteristics were intercorrelated at an alpha of .92.

Based on the mean score, the items were ranked in descending order of importance to student learning. A principal-components factor analysis of the 18 teaching behaviors yielded the following five factors: The instructor who 1) promotes students' growth and development into the professional nurse role; 2) is a resource person for

students in the clinical setting; 3) creates meaningful clinical learning experiences for students; 4) acts as a role model when teaching clinical procedures to students; 5) assists students to integrate theory into the practice setting.

The principal-components factor analysis of the 14 personal characteristics yielded the following three factors: The instructor who 1) creates a climate conducive to students' learning; 2) exhibits satisfaction with the nursing-teaching role; 3) shows concern for and consideration of others. The factors in each group appear to be hierarchical; therefore, Factor 1 is the most important overriding goal for each group.

This study reveals that, for the most part, the teaching behaviors and personal characteristics identified in the nursing literature are sufficient to define what characterizes the effective clinical instructor. However, students identified two personal characteristics of nursing instructors not cited in the literature that may be necessary for effective clinical teaching: kindness and honesty.

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VITA

The author, Patricia Ruttkay, is the daughter of John Ruttkay and Mildred (Dianis) Ruttkay. She was born January 4, 1942, in Chicago, Illinois.

Her elementary education was obtained in the public schools of Chicago, Illinois, and Libertyville, Illinois. Her secondary education was completed in 1959 at the Libertyville Fremont High School in Libertyville, Illinois.

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CHAPTER I

INTRODUCTION

An integral part of professional nursing education programs is
clinical instruction in hospital settings. Student nurses receive
clinical instruction in five areas of health care delivery: medical
nursing, surgical nursing, maternal nursing, child nursing, and men-
tal health nursing. Students receive clinical instruction in commu-
nity health settings as well. All professional nursing education pro-
grams require students to engage in clinical practice under the super-
vision of a nursing instructor. Clinical instruction appears to be
unique to nursing and related health care professions such as dentist-
ry, medicine, physical therapy, clinical counseling, and school psy-
chology. Clinical instruction may be defined as "that instruction
which occurs in settings and situations in which the student gives di-
rect care to real clients as part of a planned learning activity"
(O'Shea & Parsons, 1979, p. 411).

Prior to entering a patient care unit for the first time, the
student may experience one or more conflicting emotions. Three com-
monly reported emotions are excitement, fear, and anxiety. The stu-
dent experiences excitement because she is eager to assume the nursing
role. At the same time, the student is fearful. She is fearful of
what she might encounter in the hospital. She is uncertain of how she
would react in a normal situation; she is even more fearful of an emer-
gency situation. These feelings are reported to create a sense of

anxiety over the first clinical day (Garrett, Manuel, & Vincent, 1976; Selleck, 1982).

The dilemma the beginning student nurse faces is not unique to her; however, she is certain she is the only one who has ever been afraid to go into the clinical area. The student is anxious each time she enters a different clinical area with a new instructor. Although the student may have been successful in other clinical areas, her past performance does not guarantee success in an unfamiliar setting (Karns & Schwab, 1982). Students experience varying degrees of anxiety for two or three weeks into each clinical rotation. Occasionally, the anxiety lasts longer. Students have verbalized their anxiety. They have said, "I am afraid I will look stupid," or "I feel like I should know this by now."

Coupled with anxiety about the clinical setting is anxiety about each clinical instructor. The anxiety may stem from previous unpleasant experiences with nursing instructors, teachers, or other authority figures. It may stem from stories told by nursing students about negative experiences with a particular instructor. One student told the investigator, "Of all the instructors, I was the most afraid of you-- I don't even know why. And you turned out to be my favorite one!" A number of students have told the investigator that they were afraid of some nursing instructors. One student said, "I felt so uncomfortable." Another student said, "She was just waiting for me to make a mistake--she just stood by and didn't say anything."

Studies indicate that interpersonal relationships with nursing instructors are a source of considerable stress and anxiety for most

nursing students (Garrett et al., 1976; Blainey, 1980). Why should nursing students be afraid of their nursing instructors? Can learning take place in an atmosphere of fear and anxiety? There are no easy answers to these questions. Although nursing education has undergone many changes during the past 20 years, the fear and anxiety associated with the clinical area remains unchanged. Learning may be compromised in such an atmosphere. Shetland (1965) writes, "Fear of mistakes . . . has been so emphasized in nursing that it has caused paralysis. A rigidly controlled anxiety-laden learning environment will not produce nurses able to utilize their knowledge in new ways to meet both old and new problems" (p. 114). Although this statement was written over 20 years ago, vestiges of these attitudes remain today.

Why do nursing instructors tend to engender fear in students? This may be explained by reflecting upon nursing education as a mirror of society. For example, Griffith & Bakanauskas (1973) write as follows:

> Since its inception, nursing education has perpetuated society's image of women as submissive and subordinate to men. Nurses have been dependent on the decisions of physicians. . . . These attitudes are still prominent today in nursing education. Havbeen denied access to real power and control in nursing, faculty tend to exert power over students by placing them in submissive roles and utilizing manipulative strategies to maintain authority. (p. 104)

Nursing instructors recognize that students are anxious in the clinical setting. However, instructors seldom acknowledge their own anxiety. O'Shea & Parsons (1979) state, "Because the student in the health-related professions works with real clients, there is some element of risk involved and therefore some concomitant learner and teacher anxiety. This anxiety and the environment itself combine to make the clinical setting unique" (p. 411).

The clinical setting is an environment unlike most other environments where learning occurs. The student nurse and the nursing instructor experience anxiety, but the nature of their anxieties is reported to be different. The student is anxious because she is in an unfamiliar environment. She does not know where the linen room is, how to get to x-ray, or where the waiting room is for her patient's relatives and friends. As the student tries to become used to her new surroundings, she must care for an ill person. If the student experiences too much anxiety, she may be unable to apply her knowledge and skills in a practice area. Simultaneously, the student nurse is being socialized into the role of a professional nurse. Certain behaviors are expected of her. It takes time to learn what these behaviors are and to internalize them. No wonder the student nurse is anxious!

The nursing instructor may be anxious because she is in an unpredictable setting. Certain events occur which are unexpected and beyond her control. It may be difficult to create and maintain an ideal learning experience for each student. As Van Ort (1983) has stated, "In the clinical setting, the number of variables increases

and the teacher's control or ability to manipulate the learning environment varies" (p. 325). Responsibility and accountability inherent in clinical teaching may make the instructor anxious. Although each nursing student is responsible for her patient, it is the nursing instructor who assumes ultimate responsibility for her students. The instructor is held accountable to patients and their families, to the nursing staff, to the hospital or institution, and to her school not only for her own actions but also for the actions of students she supervises.

Learning and teaching in the clinical area are presumed to be accompanied by different types of anxiety in the student and the instructor. Each must function within an uncertain environment. It is the instructor's responsibility to create a psychological climate for learning. Learning is promoted in an atmosphere of trust and mutual respect between learner and teacher. What can the nursing instructor do to promote effective learning within the clinical setting? The instructor needs to recognize that she is the "primary link between the student nurse who is acquiring skills and the environment in which that learning takes place" (Meleca, Schimpfhauser, Wittman, & Sachs, 1981, p. 33). The one variable the instructor can control is her own behavior. In an uncertain clinical setting, the nursing instructor who has the capacity to understand her own behavior is able to be more supportive to her students (Floyd, 1982; Spalding, 1964).

Which teaching behaviors of nursing instructors in the clinical setting promote student learning? Since much of the teaching of

nursing occurs in the clinical setting, one would expect to find effective clinical teaching behaviors described in the literature. This is not the case. For the most part, nursing faculties have used evaluation tools from other disciplines to evaluate clinical teaching. For example, Stafford & Graves (1978) state, "Nursing educators have borrowed instruments from psychology and education without evaluating their appropriateness to nursing" (p. 497).

Nursing students are recipients of their instructor's efforts (Jacobson, 1966). It would appear that students are in the best position to judge which teaching behaviors and personal characteristics of nursing instructors in the clinical setting are most effective in promoting their learning. Yet few research studies describe specific teaching behaviors and personal characteristics of nursing instructors in the clinical setting which, according to nursing students, facilitate their learning. Although dramatic changes have occurred in nursing education during the past 25 years, there is very little research which examines the effectiveness or ineffectiveness of specific instructional behaviors thought to be critical to clinical teaching (Brown, 1981; Meleca et al., 1981; McCabe, 1985).

Individual differences in teaching behaviors and personal characteristics of nursing instructors in the clinical setting seem to influence student learning. The relationships between and among the variables of instructor behaviors and personal characteristics and the degree to which these variables influence the learning of nursing students warrants an in-depth assessment, analysis, and interpretation.

Identifying such behaviors is crucial for effective clinical teaching.
As Knox & Mogan (1985) write, "Clinical teaching is a major component
of nursing education. . . . Effective or ineffective teacher behaviors
will enhance or obstruct learning. . . . Identification of teacher be-
haviors that are effective and valued is necessary so that teachers
may function more effectively" (p. 25).

The study reported here is designed to address the following
research question: Are the clinical behaviors identified in the nur-
sing literature sufficient to define what characterizes the effective
clinical instructor? Or are other behaviors necessary for effective
clinical teaching? That is to say that the overall purpose of this
study is to investigate teaching behaviors and personal characteris-
tics of nursing instructors in the clinical setting that facilitate
the learning of baccalaureate nursing students.

The investigator directly surveyed baccalaureate nursing students
to determine the teaching behaviors and personal characteristics of
nursing instructors in the clinical setting that facilitate student
learning.

CHAPTER II

REVIEW OF THE LITERATURE

A review of the nursing literature from 1960 to 1986 was done to
determine the teaching behaviors and personal characteristics thought
to be essential for effective clinical teaching. Most nursing studies
describe several teaching behaviors and personal characteristics of
clinical teaching effectiveness; therefore, categorizing the studies
according to specific teaching behaviors and personal characteristics
was difficult. However, to facilitate understanding, studies which
address particular concepts, such as role modeling, are discussed to-
gether within their respective time frameworks. The studies reviewed
were divided into time frameworks as follows: 1960 to 1969; 1970 to
1979; and, 1980 to 1986. This was done to ascertain patterns, trends,
and changes as to the kinds of teaching behaviors and personal char-
acteristics thought to be essential for effective clinical teaching
during the past 26 years.

1960-1969

Prior to the 1960s, Bregg (1958) and Hall (1959) described fac-
tors in the student-teacher relationship which promote effective learn-
ing within the clinical setting. Bregg (1958) states that the instruc-
tor who is understanding and supportive of students allowing them
"freedom to grow" promotes a climate for effective learning (p. 1121).

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Imitation and identification as key elements in the learning climate are addressed by Hall (1959) who perceives the nursing instructor as a role model. He states a climate for learning is promoted when students identify with the nursing instructor because of "the way she cares for patients, and relates to students, peers, superiors, and subordinates" (p. 421). Although no research was done, Bregg (1958) and Hall (1959) recognized the effect of teacher behavior on student learning and set the stage for subsequent studies.

The emphasis on the nursing instructor as a role model is reflected in three articles. Jourard (1964) writes that enthusiasm, creative commitment, and involvement in nursing and teaching are important characteristics of an effective role model. "Nothing is so contagious as enthusiasm. . . . A committed person is one who is enthused about her subject matter" (p. 472). A similar article cites enjoyment of teaching as an effective teaching behavior. Hassenplug (1965) states that "the good teacher . . . is one who likes his subject, likes to teach, and makes his students work" (p. 24). Identification with the nursing instructor, which is similar to Hall's (1959) perception of the student-instructor relationship, also is stressed by Hassenplug (1965) who writes that students identify and compare themselves with their nursing instructors because they see her as a model of the teaching-learning process. The nursing instructor is viewed as a "communicator of knowledge" by her students (p. 26).

Spalding (1964), like Hall (1959), Hassenplug (1965), and Jourard (1964), stresses that the teacher who enjoys both teaching

and nursing has a positive effect on student learning. She writes, "The teacher's mastery of the subject, taught with interest and enthusiasm, gives a sense of significance . . . to learning, which gains students' respect (p. 51). In addition, the ability of the nursing instructor to set up structured learning experiences allowing students to plan their work and time ahead is thought to promote learning, especially for beginning students (Spalding, 1964; Skinner, 1964).

Barham (1965) conducted one of the first research studies that attempted to identify effective behaviors of nursing instructors. The objective of her study was to identify the behavior which differentiates between effective and ineffective nursing instructors in junior community colleges in California. Using the critical-incident technique, Barham (1965) asked 4 groups (52 first-year nursing students, 50 second-year nursing students, 64 nursing instructors, and 12 directors of associate degree programs) to describe specific situations of effective or ineffective behaviors. Each participant was asked to describe two incidents, one situation of an effective teaching behavior and one situation of an ineffective teaching behavior. "An example of a critical incident was given in the instruction sheet" (p.66).

Data analysis revealed 19 critical teaching behaviors. Respondents described teaching behavior "in all areas--classroom, counselling situations, and clinical areas. Almost two-thirds of the critical incidents occurred in the clinical area" (Barham, 1965, p. 67). Those effective teaching behaviors of nursing instructors most applicable to the clinical learning situation are as follows: "appropriate preparation; availability; accepting students as individuals; empathizing

with students; and, setting an example" (p. 67). Barham (1965) iden-
tifies instructor anxiety as a crucial factor in teaching effective-
ness. The instructor who "shows restraint so that her own anxiety
does not influence the situation" was cited as most important for
learning by all respondents (p. 67).

During the 1960s, Jacobson (1966) carried out the most exten-
sive research concerning the behavior of nursing teachers. She asked
961 undergraduate students in five university schools of nursing to
identify effective and ineffective behavior of teachers of nursing.
Like Barham (1965), Jacobson (1966) used a modified form of the crit-
ical-incident technique. She conducted 21 group interviews with 5 to
80 students per group. The students were asked to describe as many
effective and ineffective incidents as possible within 50 minutes.
To maintain control, the same person conducted all interviews using a
standardized format (p. 222).

Jacobson (1966) collected 1,182 usable critical incidents which
were classified into six broad categories as follows: " 1) availa-
bility to the students; 2) apparent general knowledge and profession-
al competence; 3) interpersonal relations with students and others;
4) teaching practices (mechanics, methods, skills) in classroom and
clinical areas; 5) personal characteristics; 6) evaluation practices"
(p. 222).

Some behaviors relate to patient care while other behaviors can
be applied to any teaching situation. Those requirements for effec-
tive teaching which apply to clinical teaching are listed as follows:

1. Keeps self available to students

   a. in stressful situation

   b. as a resource person

2. Demonstrates own ability as a nurse and teacher by

   a. planning for depth and continuity of care

   b. making students aware of professional responsibility

   c. being well informed and able to communicate knowledge to
      students

3. Shows skill in interpersonal relationships by

   a. alleviating student anxieties

   b. correcting student tactfully

   c. making students feel free to ask questions or to ask for
      help

   d. interacting well with students, patients, and staff

   e. showing genuine interest in patients and their care

4. Teaching practices include

   a. precision in objectives

   b. demonstration of manual skills followed by opportunity
      to practice

   c. creating a casual, relaxed atmosphere, making learning
      enjoyable

   d. supervising and helping in new experience without taking
      over

   e. giving guidance and support in new and difficult situa-
      tion

   f. planning experiences for students when new and unexpected

learning situations occur--that is, utilizing changes in
clinical areas

g. being considerate of students' time

5. Personal characteristics include

a. showing warmth, sympathy, and human emotions

b. an interest and enthusiasm that is "catching," making
students interested

c. being patient, consistent, predictable

d. being calm, poised, and concerned in the clinical area

e. being flexible

f. having a sense of humor

6. Evaluation practices include

a. telling student when she has done well

b. holding high expectations for student performance

c. correcting student at the time an error occurs.

(Jacobson, 1966, p. 223)

Jacobson's (1966) research differs from previous studies because
she described how the teacher achieves effectiveness rather than sta-
ting teacher behavior in single words. Most behaviors she identified
are observable and measurable. Unlike previous researchers, Jacobson
(1966) was concerned solely with student response as a measure of
teacher effectiveness.

Layton (1969) conducted a qualitative survey of nursing students
to determine what attitudes and actions of instructors helped their
learning and what attitudes and actions hindered their learning. She
asked 141 students, 70 juniors and 71 seniors, from one 2-year nursing

program to complete an open-ended questionnaire. The responses were categorized into specific behaviors. Instructor attitudes and actions that the students identified as helpful to their learning are listed in order of importance as follows:

1. Demonstrating interest in and accepting student as a person

2. Willing to explain things and to answer questions

3. Giving encouragement and praise

4. Giving responsibility when the student is ready for it

5. Informing the student of progress made. (Layton, 1969, p. 28)

During the 1960s, many teaching behaviors and personal characteristics which are important for teaching effectiveness were identified in the literature. Table 1 has a summary of effective teaching behaviors and personal characteristics of nursing instructors reported in the literature from 1960 through 1969.

Table 1

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1960-1969

	Available	Empathy	Independence	Role Model	Knowledge	Organized	Feedback	Questions	Personal Traits
Bregg (1958)*		x	x						
Hall (1959)*				x					
Jourard (1964)				x					
Spalding (1964)				x		x			
Skinner (1964)						x			
Hassenplug (1965)				x	x				
Barham (1965)	x	x		x		x			
Jacobson (1966)	x	x	x	x	x	x	x	x	x
Layton (1969)		x	x				x	x	

*Teaching behaviors reported in literature prior to 1960

Reviewing the studies in Table 1, 6 of 9 authors describe teaching behaviors which make the instructor a role model for her students (Hall, 1959; Jourard, 1964; Spalding, 1964; Hassenplug, 1965; Barham, 1965; Jacobson, 1966). The instructor who shows empathy towards nursing students is documented by four authors as important for student learning (Bregg, 1958; Barham, 1965; Jacobson, 1966; Layton, 1969). Teaching behaviors such as setting objectives and planning for student learning experiences depict the organized instructor. Four authors state that organizational skills are important for teaching effectiveness (Spalding, 1964; Skinner, 1964; Barham, 1965; Jacobson, 1966).

The instructor who allows students to become independent in the clinical setting promotes learning (Bregg, 1958; Jacobson, 1966; Layton, 1969). Giving feedback and answering students' questions are two teaching behaviors identified by nursing students as important for their learning by Jacobson (1966) and Layton (1969). Giving feedback reflects the influence of learning theory, particularly behaviorism, on nursing education. Answering students' questions reflects nurse educators' interest in defining behaviors which would operationalize the concept of instructor accountability and responsibility to nursing students. These two behaviors, giving feedback and answering students' questions, would continue to be cited as important for teaching effectiveness during the next two decades.

<u>1970-1979</u>

The nursing instructor who demonstrates behaviors which make her
a role model for students continues to be cited as important for teach-
ing effectiveness. Nursing students become socialized into the nursing
role not only when the instructor shares her knowledge and experiences
with them, but also when she demonstrates nursing care in selected sit-
uations in the clinical area (Wood, 1971; Lipson, 1972).

The instructor who is professionally competent is a role model
for students, according to Kiker (1973) who conducted an exploratory
study at two Texas universities. Her population consisted of 30 under-
graduate education students, 37 undergraduate nursing students, and 36
graduate nursing students. Under the general category of professional
competence, undergraduate nursing students identified two teaching
characteristics as most important for teacher effectiveness. These are
as follows: "Organizes classroom content and/or laboratory experience
in a manner which is meaningful to the student" and, "Demonstrates
skills, attitudes, and values that are to be developed by the student"
(p. 722). Other attributes identified by Kiker (1973) as important
for effective teaching are "objectivity and fairness in student evalu-
ation; being accessible for student conferences; showing concern and
sympathy for student problems; having a sense of humor" (p. 722).
Kiker's (1973) study is different from the investigator's study due to
the fact that Kiker (1973) sampled learners from three learning situa-
tions and did not differentiate between classroom and clinical teach-
ing.

The instructor who is sensitive to students' needs and feelings and who shows warmth and sympathy to others has two personal characteristics thought to be important for teacher effectiveness according to Lowery, Keane, & Hyman (1971) and Wood (1971). The authors identify the instructor who is concerned for patient welfare as a variable that promotes student learning. Wood (1971) writes that interest in the subject, knowledge of nursing practice, and a sense of humor are other characteristics of effective teachers while Lowery et al., (1971) add that the instructor who is "calm and poised" in the clinical area is a factor in teaching effectiveness (p. 438).

The studies by Wood (1971) and Lowery et al., (1971) differ in methodology from the investigator's study. Wood (1971) conducted her study in Canada. Using the same instrument, she asked student nurses to evaluate not only their clinical instructors, but also their ward tutors. There is no counterpart to the ward tutor in this country. Rather than asking nursing students about the characteristics of instructors which facilitate their learning, Lowery et al., (1971) requested nursing students and faculty to describe the characteristics of nursing instructors which are most important for teaching effectiveness.

One particular article suggests that social modeling and behaviorism are two theories of learning especially applicable to clinical teaching. Identification with and imitation of a role model are important for socialization into the professional role. Mutzebaugh & Dunn (1976) write that "the instructor can use his own behavior to

influence his students' behavior so learning may take place" (p. 27).
Behavioral theory is applied when the instructor gives the beginning
nursing student non-verbal reinforcement in the form of head nodding
and smiling while she is giving nursing care (p. 33).

Social modeling theory is evident when the nursing instructor
uses demonstration to teach psychomotor skills. Stevens (1976) writes
as follows:

Demonstration is the method most often used for teaching psycho-
motor processes. It combines explanation with exhibition, and it
correlates theory with practice. Demonstration is a technique
that requires many skills on the part of the teacher. She must
have the psychomotor skills required, the ability to organize her
materials and their sequential use, and the ability to "talk and
do" at the same time. (p. 19)

Wong (1978), like Jacobson (1966) and Layton (1969), studied
the relationship between nurse-teacher behaviors in the clinical area
and student learning. Wong's (1978) study is similar in purpose to
the investigator's qualitative study which formed the basis for this
research. The purpose of Wong's (1978) study was "to identify stu-
dents' perceptions of teacher behaviors which either facilitate or
hinder students' learning in the clinical field, and to determine if
there is a difference in the perceptions of first and second year
students" (p. 369). The research was exploratory and descriptive in
nature.

Using a modified form of the critical-incident technique, Wong
(1978) asked students to describe incidents in five basic categories:

professional competency, interpersonal relationships, personal attrib-

utes, teaching methods, and evaluation practices. "A 2-year basic

nursing programme, in a College of Applied Arts and Technology in On-

tario, was chosen. A sample of eight 1st-year and six 2nd-year stu-

dents participated in the study" (p. 370). The students identified

nine teacher behaviors as helpful to their learning. These behaviors

are as follows:

1 Demonstrated willingness to answer questions and offer explana-

   tions.

2 Giving students encouragement and praise.

3 Being interested in students and respectful to them.

4 Informing students of their progress.

5 Displaying an appropriate sense of humor.

6 Having a pleasant voice.

7 Being available to students when needed.

8 Giving an appropriate amount of supervision.

9 Displaying confidence in themselves and in the students. (Wong,

   1978, p. 371)

   Another study reflects nurse educators' efforts to determine ef-

fective clinical teaching behaviors. Using a two-question written

questionnaire, O'Shea & Parsons (1979) conducted a survey of 205 stu-

dents and 24 faculty in a baccalaureate nursing program of a private

university. They asked students and faculty to list 3 to 5 teacher be-

haviors that facilitate student learning and 3 to 5 teacher behaviors

that interfere with student learning in the clinical setting (p. 412).

O'Shea & Parsons (1979) defined effective teaching behaviors as "those actions, activities, and verbalizations of the clinical instructor which facilitate student learning in the clinical setting. Conversely, ineffective teaching behaviors are defined as those actions, activities, and verbalizations which interfere with student learning in the clinical setting" (p. 411).

Facilitative behaviors identified by junior students, senior students, and faculty in O'Shea & Parson's (1979) study are the following: " (is) knowledgeable; plans assignments; explains new procedures; available in clinical setting; willing to help; answers questions freely; gives verbal encouragement; not over-supervising; and (acts as a) role model" (p. 413). Personal characteristics identified by students and faculty as facilitating learning in the clinical setting are as follows: "concerned understanding; enthusiastic, friendly, patient, and relaxed" (p. 414).

Qualitative data describing behaviors was obtained. The percentage of faculty and students identifying specific teaching behaviors as facilitative was determined.

"Being available in the clinical setting" was ranked first by 35% of the junior students, 35% of the senior students, and 30% of the faculty. "Willing to help" was ranked as important by 34% of junior students but only by 10% of senior students and faculty, respectively. This most likely reflects junior students' need for greater assistance in the clinical area. (O'Shea & Parsons, 1979, p. 414)

During the 1970s, many teaching behaviors cited earlier in the literature continue to be important. However, new teaching behaviors and personal characteristics emerge during this decade which establish patterns of behaviors characterizing teacher effectiveness. Table 2 shows effective teaching behaviors and personal characteristics reported in the literature from 1970 through 1979.

Table 2

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors 1970-1979

	Available	Empathy	Independence	Role Model	Knowledge	Organized
Lowery (1971)		x		x		
Wood (1971)		x		x		
Lipson (1972)				x		
Kiker (1973)	x	x		x		x
Mutzebaugh & Dunn (1976)				x		
Wong (1978)	x	x	x			
O'Shea & Parsons (1979)	x	x	x	x	x	x

Table 2 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors 1970-1979

	Feedback	Questions	Demonstration	Personal Traits
Lowery (1971)				x
Wood (1971)				x
Lipson (1972)		x		
Kiker (1973)	x			x
Mutzebaugh & Dunn (1976)	x			
Stevens (1976)			x	
Wong (1978)	x	x		x
O'Shea & Parsons (1979)	x	x	x	x

During the 1970s, the teaching behavior cited most frequently (in 6 of 8 articles) as influencing student learning in the clinical setting is the instructor as a role model (Lowery et al., 1971; Wood, 1971; Lipson, 1972; Kiker, 1973; Mutzebaugh & Dunn, 1976; O'Shea & Parsons, 1979). Behaviors under the category of empathy to students are cited in 5 of 8 articles (Lowery et al., 1971; Wood, 1971; Kiker, 1973; Wong, 1978; O'Shea & Parsons, 1979).

Four studies (Kiker, 1973; Mutzebaugh & Dunn, 1976; Wong, 1978; O'Shea & Parsons, 1979) state that feedback is an essential component of the teaching-learning process. Other teaching behaviors such as being available to students (Kiker, 1973; Wong, 1978; O'Shea & Parsons, 1979) and answering students' questions (Lipson, 1972; Wong, 1978; O'Shea & Parsons, 1979) remain important during this era. The use of demonstration to teach psychomotor skills and procedures, that was first mentioned by Jacobson in 1966, continues to be important for effective clinical teaching (Stevens, 1976; O'Shea & Parsons, 1979).

During the 1960s and 1970s, certain teaching behaviors and personal characteristics of effective teaching are cited more frequently than others. Patterns have been established. The instructor who is a role model and who shows empathy towards nursing students are two teaching behaviors cited consistently over 20 years. Emerging trends during the 1970s indicate that giving feedback and demonstrating psychomotor skills are factors in clinical teaching effectiveness. Organizational skills, promoting independence in students, and being

available to students are three teaching behaviors which continue to be reflected in the literature during the 1970s. However, these three behaviors are cited less frequently than during the 1960s. Table 3 shows the number of times that effective teaching behaviors and personal characteristics were reported in 17 articles from 1960 through 1979. Patterns, trends, and changes are evident.

Table 3

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1960-1979

Teaching Behaviors	9 articles 1960-1969	8 articles 1970-1979	17 articles 1960-1979
Acts as a role model	6	6	12
Shows empathy towards nursing students	4	5	9
Gives appropriate feedback to nursing students	2	4	6
Has organizational skills	4	2	6
Is available to students	2	3	5
Promotes independence in students	3	2	5
Answers questions	2	3	5
Is knowledgeable	2	2	4
Uses demonstration in teaching procedures, skills		2	2

Table 3 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors 1960-1979

Personal Characteristics	9 articles 1960-1969	8 articles 1970-1979	17 articles 1960-1979
Has a sense of humor	1	3	4
Is calm/relaxed	1	2	3
Is patient	1	1	2
Is friendly		1	1
Has a pleasant voice		1	1
Is willing to help		1	1

1980-1986

Current studies cite the same teaching behaviors and personal characteristics of effective nursing instructors previously documented in the literature. The instructor who demonstrates behaviors which make her a role model for students continues to be an important factor in teacher effectiveness (Sheahan, 1980; Wong, S., & Wong, J., 1980; Brown, 1981; Gardner, 1981; Grassi-Russo & Morris, 1981; Meleca et al., 1981; Marson, 1982). For example, instructors who share their own nursing experiences facilitate student learning (Sheahan, 1980). Brown (1981) emphasizes that the clinical teacher serves as a role model for students by establishing "therapeutic relationships with patients" (p. 14). Grassi-Russo & Morris (1981) write that the clinical learning experience makes the relationship between instructor and student especially significant. The instructors are perceived as being both professionally competent and "empathetic helping persons with emotional strength and stability" (p. 15).

S. Wong & J. Wong (1980) state the nursing instructor acts as a group leader and resource person during patient-care conferences following clinical experiences (p. 534). According to Marson (1982), the nursing instructor who enjoys her work and "displays high standards" acts as a role model for students (p. 350). Similarly, Gardner (1981) writes that the instructor who enjoys teaching and is enthusiastic about nursing affects student interest and motivation to continue learning.

Griffith & Bakanauskas (1983) state the instructor serves as a

role model and a resource person. They write as follows:

The attitude and demeanor of the instructor is more easily "caught than taught" by students. As instructors demonstrate an attitude of continued learning and growth, they may facilitate students' creative thinking in nursing practice through experimentation and risk-taking. When an instructor's knowledge, skills, expertise, feelings, and emotional reactions are available to students, they may feel free to interact and use the instructor as a resource in their search for knowledge and personal growth. (p. 107)

The instructor who shows empathy towards nursing students is identified frequently as an effective teaching behavior. Coles, Dobbyn, & Print (1981) and Karns & Schwab (1982) state the instructor plays a supportive role in clinical teaching. Karns & Schwab (1982) add that the effective nursing instructor is one who "can remember she was once a student" (p. 41). Similarly, Marson (1982) states the effective instructor "seems to know how learners feel" (p. 349).

Griffith & Bakanauskas (1983) identify teaching strategies which facilitate interpersonal growth and learning in student-instructor relationships. Demonstrating empathetic understanding is believed to facilitate learning. They write as follows:

By listening to students, we show respect and care about them as individuals. Our interest communicates that we want to understand the situation as the student perceives it. . . . When instructors convey an understanding, empathetic attitude toward students, without trying to change them, they will not form the impression that we don't care about them or that we are trying to control the

learning situation. (p. 106)

A later study by Stephenson (1984) concurs that the instructor who is helpful and supportive to students promotes learning in the clinical setting.

Giving appropriate feedback to nursing students remains an essential behavior of effective teaching that is documented in several studies (Hardy, 1980; Sheahan, 1980; Brown, 1981; Gardner, 1981; Karns & Schwab, 1982; Marson, 1982; Young, 1983). As an example, Gardner (1981) emphasizes the significance of positive reinforcement whereas Karns & Schwab (1982) stress that giving positive feedback promotes student learning.

Griffith & Bakanauskas (1983) view feedback within the broader context of student evaluation. Instructor attitude is a crucial factor in the evaluation process. They state the following:

If students know instructors care about them as individuals, they can accept their achievements and improve their weak areas. The value of the evaluation depends on the attitudes of both the instructor and the student. Instructors need to convey a sense of caring concern so that the student is receptive to hearing both positive and negative aspects . . . and profiting from the evaluation. (p. 107)

The instructor who demonstrates teaching behaviors which show organizational ability is an effective teacher according to several authors (Sheahan, 1980; Wong, S. & Wong, J., 1980; Meleca et al., 1981; Marson, 1982; Young, 1983). Each author reports that setting objectives is essential for the clinical learning experience. For

example, Sheahan (1980) states, "The learner . . . needs reference points to make sense out of the clinical experience. Increasing use of objectives for each clinical experience is an important contribution" (p. 493). And S. Wong & J. Wong (1980) write, "Setting behavioural objectives is one method . . . to improve teaching strategy especially in clinical teaching where teaching is less structured than in the classroom" (p. 533).

The instructor who is available or accessible to students still is considered an effective teaching behavior (Gardner, 1981; Karns & Schwab, 1982; Marson, 1982). Promoting a sense of independence, however, is mentioned only twice: by Brown (1981) and by Keen & Dear (1983). This represents a definite change from earlier studies. The instructor who promotes independence in students had been cited as an effective teaching behavior by five authors during the 1960s and the 1970s. Why this teaching behavior is now being cited less frequently cannot be determined. Since more than twice as many articles have been written from 1980 to 1986 than from 1960 to 1980, it would seem that this behavior should be mentioned more frequently. Perhaps as nursing care has become more complex and contemporary nursing students receive less clinical instruction than students did in the past, the students of today are not ready to be more independent in the clinical setting.

The nursing instructor who asks and answers questions is still considered a factor in teaching effectiveness (Wong, S., & Wong, J., 1980; Meleca et al., 1981; Busl, 1981; Craig & Page, 1981; Marson, 1982). S. Wong & J. Wong (1980) write that one way to help students

develop problem solving skills is to ask questions (p. 534). Meleca
et al., (1981) concur it is important not only to "question students
to determine the accuracy of their observations of client conditions,"
but also to "answer students' questions" (p. 38).

Encouraging student to think and ask questions is a teaching be-
havior which promotes learning. "The teacher needs to encourage stu-
dents to think and ask questions" (Busl, 1981, p. 43). The importance
of asking questions is explained further by Craig & Page (1981). They
write as follows:

> Questions, when skillfully asked, assist students to see relation-
> ships and link the unknown to the known. . . . Questioning permits
> student and teacher to explore ideas together. The art of ques-
> tioning, more than any other teaching skill, can assist the teach-
> er in conveying her interest, her enthusiasm, and her continued
> pursuit of her own learning. (p. 18)

Marson (1982) supports Craig's & Page's (1981) findings. She
collected statements about trained nurses considered to be good at
teaching. Asking and answering questions was considered to be impor-
tant for effective teaching. Marson (1982) states, "She asked me
questions to find out what I already knew . . . she explained medical
terms in simple language" (p. 349).

Other teaching behaviors cited previously in the literature
continue to appear during the 1980s. The instructor who is knowl-
edgeable about nursing facilitates student learning (Gardner, 1981;
Karns & Schwab, 1982; Marson, 1982). Using demonstration to teach
psychomotor skills and clinical procedures is another effective

teaching method (Hardy, 1980; Sheahan, 1980; Coles et al., 1981; Gardner, 1981). Demonstration should be "complete and presented at a logical pace" (Hardy, 1980, p. 326). Gardner (1981) states that the instructor "who demonstrates and explains procedures" is an effective clinical teacher (p. 608).

Certain personal characteristics of nursing instructors identified earlier in the literature still are thought to promote learning today. The nursing instructor with a sense of humor facilitates student learning (Gardner, 1981; Marson, 1982). A calm nursing instructor promotes learning (Blainey, 1980; Marson, 1982). Blainey (1980) states, "Calm behavior on the part of the instructor serves to reduce anxiety in students" (p. 36). The instructor who is a patient person is cited by Marson (1982) while the instructor who is friendly in the clinical setting is cited by Marson (1982) and Stephenson (1984) as personal characteristics of the effective nursing instructor.

Being approachable in the clinical setting is a new personal characteristic cited during the 1980s by Marson (1982) and Stephenson (1984). These writers state that the instructor who is "approachable and friendly" facilitates student learning. In this investigation, "approachable" is one characteristic and "friendly" is another characteristic.

Many studies written from 1980 through 1986 are reviews of previous studies. Authors of current studies continue to use surveys or critical-incident techniques to gather data. Only a few studies are concerned solely with nursing students. Grassi-Russo & Morris (1981) examined anxiety in nursing students. They asked 102 members of the

freshman class in a diploma school of nursing to write down, in short phrases, hopes and fears about their forthcoming experience as students of nursing (p. 10). Coles et al., (1981) sought to identify undergraduate nursing students' perceptions of teaching in the clinical area and to compare their perceptions with their perceived needs. The critical-incident technique was used by Selleck (1982) in England to identify satisfying and anxiety-creating incidents occurring during the process of becoming a state registered nurse. In another study conducted in England, Marson (1982) asked trainee nurses about effective behavioral characteristics of their ward teachers.

Other investigators looked at faculty and student perceptions of effective clinical teaching (Brown, 1981; Stephenson, 1984). In Brown's (1981) study, she wanted to identify those characteristics of the clinical nursing teacher believed to be important by students and faculty and to compare the two groups (p. 5). Brown (1981) did not develop an original instrument; instead, she used a composite of 20 characteristics of teachers found in the literature. Stephenson (1984) conducted research from a sociological perspective using role theory as her organizing theoretical framework. She examined the role relationship between nurse-tutor and student nurse. Similar to Brown's (1981) study, Stephenson's (1984) sample consisted of students and faculty.

A recent study by Knox & Mogan (1985) in Canada determined important clinical teacher behaviors as perceived by university nursing faculty, students, and graduates. The researchers used a tool of 47 teaching behaviors identified in the literature. They classified

their data into five categories: teaching ability; evaluation prac-
tices; interpersonal relationships; personality; and nursing compe-
tence. Specific teaching behaviors and personal characteristics are
neither identified nor described in their study. Knox & Mogan (1985)
report that respondents give the highest rating to the teacher's
evaluation practices and the lowest rating to the teacher's personal-
ity.

During the 1980s, teaching behaviors and personal characteris-
tics previously cited in the nursing literature are identified. Table
4 shows effective teaching behaviors and personal characteristics re-
ported in the literature from 1980 through 1986.

Table 4

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1980-1986

	Available	Empathy	Independence	Role Model	Knowledge	Organized
Sheahan (1980)				x		x
Wong & Wong (1980)				x		x
Brown (1981)			x	x		
Coles et al., (1981)		x				
Gardner (1981)	x			x	x	
Grassi-Russo & Morris (1981)		x		x		
Meleca et al., (1981)				x		x

Table 4 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1980-1986

	Available	Empathy	Independence	Role Model	Knowledge	Organized
Karns & Schwab (1982)	x	x			x	
Marson (1982)	x	x		x	x	x
Griffith & Bakanauskas (1983)		x		x		
Keen & Dear (1983)			x			
Young (1983)						x
Stephenson (1984)		x				

Table 4 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors 1980-1986

	Feedback	Questions	Demonstration	Personal Traits
Blainey (1980)				x
Hardy (1980)	x		x	
Sheahan (1980)	x		x	
Wong & Wong (1980)		x		
Brown (1981)	x			
Busl (1981)		x		
Coles et al., (1981)			x	

Table 4 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1980–1986

	Feedback	Questions	Demonstration	Personal Traits
Craig & Page (1981)		x		
Gardner (1981)	x		x	x
Meleca et al., (1981)		x		
Karns & Schwab (1982)	x			
Marson (1982)	x	x		x
Griffith & Bakanauskas (1983)	x			
Young (1983)	x			
Stephenson (1984)				x

Teaching behaviors and personal characteristics cited earlier in the literature remain important during the 1980s. For example, the nursing instructor as a role model is cited in 8 of 17 articles. The nursing instructor who provides feedback to her students also is cited in 8 of 17 articles. The nursing instructor who shows empathy towards nursing students, who is organized, and who asks questions are additional teaching behaviors which promote effective teaching. Each of these behaviors is cited in 5 of 17 articles. Table 5 shows the number of times that teaching behaviors and personal characteristics were reported in 34 articles from 1960 through 1986. Patterns, trends, and changes may be seen.

Table 5

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors   1960-1986

Teaching Behaviors	9 articles 1960-1969	8 articles 1970-1979	17 articles 1980-1986	34 articles 1960-1986
Acts as a role model	6	6	8	20
Shows empathy towards nursing students	3	5	6	14
Gives appropriate feedback to nursing students	2	4	8	14
Has organizational skills	4	2	5	11
Answers questions	2	3	5	10
Is available to students	2	3	3	8
Is knowledgeable	2	2	3	7
Promotes independence in students	3	2	2	7
Uses demonstration in teaching procedures, skills	1	2	4	7

Table 5 continues

Effective Teaching Behaviors and Personal Characteristics of Nursing Instructors 1960-1986

Personal Characteristics	9 articles 1960-1969	8 articles 1970-1979	17 articles 1980-1986	34 articles 1960-1986
Has a sense of humor	1	3	2	6
Is calm/relaxed	1	2	1	4
Is patient	1	1	1	3
Is friendly		1	2	3
Is approachable			2	2
Has a pleasant voice		1		1
Is willing to help		1		1

CHAPTER III

METHOD

Qualitative Pilot Study

This research is based upon qualitative data obtained from a survey of university nursing students. The investigator designed and distributed an open-ended questionnaire to a convenience, non-probability sample of 17 senior baccalaureate nursing students from one university. The students were asked to describe, in their own words, specific teaching behaviors and personal characteristics of nursing instructors in the clinical setting that facilitate or inhibit their learning. Students also were asked to describe, in their own words, specific teaching behaviors and personal characteristics of a nursing instructor which make them feel comfortable and at ease or uncomfortable and uneasy in the clinical setting.

Qualitative data analysis revealed that students consistently cited certain teaching behaviors and personal characteristics of a nursing instructor that facilitate or inhibit their learning in the clinical setting. Similarly, students consistently cited certain teaching behaviors and personal characteristics of a nursing instructor which make them feel comfortable or uncomfortable in the clinical setting. The teaching behaviors and personal characteristics identified by the students as facilitating or inhibiting their learning and

as making them feel comfortable or uncomfortable in the clinical set-
ting were developed into a revised instrument incorporating a seven-
point Likert-type scale. The Likert-type scale was used in order to
discriminate differences in the degree to which learning was facili-
tated or inhibited and the degree to which the students felt comfort-
able or uncomfortable when the nursing instructor exhibited certain
teaching behaviors and personal characteristics in the clinical set-
ting. The scale values were assigned so that "greatly facilitates my
learning" had a value of 7 and "greatly inhibits my learning" had a
value of 1.

Operational Definitions

Operational definitions for the terms on the survey instrument
are as follows:

Teaching Behaviors: Actions by a nursing instructor which impart

information and skill in the clinical setting.

Facilitating Learning: Teaching behaviors of a nursing instructor

which make your learning easier in the clinical setting.

Inhibiting Learning: Teaching behaviors of a nursing instructor

which interfere with your learning in the clinical setting.

Personal Characteristics: Individual traits or qualities of a

nursing instructor.

Facilitating Learning: Personal characteristics of a nursing

instructor which make your learning easier in the clinical set-

ting.

Inhibiting Learning: Personal characteristics of a nursing instructor which interfere with your learning in the clinical setting.

Quantitative Pilot Study

An additional pilot study of the specially created Likert scale using 85 senior baccalaureate nursing students from three colleges of nursing as subjects was conducted. Data analysis showed responses on the learning scale and comfort scale to be nearly identical for each teaching behavior and personal characteristic. Thus, the comfort scale was eliminated from the instrument. A Cronbach alpha statistical test was performed on the data to measure the instrument's internal consistency. A standardized item alpha of .89 was obtained for the teaching behaviors, and a standardized item alpha of .87 was obtained for the personal characteristics. Based on further data analysis, two teaching behaviors and four personal characteristics were eliminated from the survey.

Instrument Used in the Study

The final survey used the same seven-point Likert-type scale as in the pilot study. The survey lists 18 teaching behaviors and 14 personal characteristics of a nursing instructor in the clinical setting which could either facilitate or inhibit the learning of baccalaureate nursing students. Operational definitions for the terms on the survey instrument are identical to those definitions used in the pilot study. (A copy of the instrument used in this study appears in

Appendix A.)

Procedure and Sample

A letter describing the purpose of the research project and re-
questing permission to conduct the study at their schools was sent to
ten deans and directors of baccalaureate nursing programs in northern
Illinois. (A copy of the letter appears in Appendix B.) A conven-
ience sample of five universities with schools or departments of nur-
sing and five colleges of nursing was chosen. The only criteria for
selection were that the institutions had to be accessible by car and
could not be more than two hours from the far northwest side of Chi-
cago.

Of the five universities selected, three universities partici-
pated in the study and two universities did not. The dean of one
nonparticipating nursing program would only allow the questionnaire
placed in student mailboxes. Since it was necessary for the inves-
tigator to personally distribute and collect the questionnaire to
insure methodological consistency, this university was excluded.
When the investigator arrived at the second nonparticipating univer-
sity, the dean of the nursing program said that, despite prior agree-
ment to cooperate, the study could not be conducted. Of the five
colleges selected, four participated in the study. Due to the fact
that students were in several small classes which met on different
days, ten or twelve visits would have been needed to collect data
from the fifth college. Since it was not possible to make numerous
visits to one institution, this college was eliminated from the study.

Seven institutions, three universities and four colleges, did partic-
ipate in the study. To insure confidentiality, none of these insti-
tutions are identified in this report.

Collection of Data

Thirteen visits to seven institutions were made during April,
May, and June, 1986. Data was gathered from 485 junior and senior
nursing students who were attending institutions granting a bacca-
laureate degree in nursing. The investigator personally explained
the purpose of the study and distributed the questionnaire with an
attached consent form to each student. When students completed the
questionnaire, they handed it back to the investigator. Confiden-
tiality was assured because students detached the consent form from
the questionnaire. The data was collected during the last 5 to 10
minutes of a class period. Students took an average of 6 to 7 min-
utes to complete the survey. A few students took 8 to 10 minutes,
but no student took longer than 10 minutes to complete the survey.
Completion time was expedited because the students merely placed an
"x" on a point of the Likert-type scale after each teaching behavior
and personal characteristic.

All students who participated returned the questionnaire; thus,
the return rate was 100 percent. Four hundred eighty-five junior and
senior baccalaureate nursing students took part in the study. Two
students failed to complete one or more pages of the questionnaire.
Therefore, data analysis was performed on 483 completed questionnaires
from 252 junior students and 231 senior students. Junior students

made up 52.2 percent while senior students made up 47.8 percent of the 483 responses analyzed.

Internal Consistency of Instrument Used in the Study

A Cronbach alpha statistical test was performed on the data obtained from the survey to determine the internal consistency of the instrument used in the study. The teaching behaviors revealed an alpha of .88 and a standardized item alpha of .90. An alpha of .91 and a standardized item alpha of .92 was obtained for the personal characteristics.

CHAPTER IV

ANALYSIS OF DATA

Demographic Data

The 483 students in this sample ranged from age 20 to age 54. Table 6 indicates the number of students in each five-year age group.

Table 6

Number of Students in Each Five-Year Age Group

Age Group	20-24	25-30	31-35	36-40	41-45	46-50	51-55
Students	396	55	21	5	3	2	1
	82.1%	11.4%	4.3%	1%	.6%	.4%	.2%

N=483

The mean age was 23 years old and the standard deviation was 4.078. The 20 to 24 year-old age group had 396 students or 82.1 percent.

Table 7 depicts a breakdown of this sample by sex.

Table 7

Distribution of Students by Sex

Female	Male
460	23
95.2%	4.8%

N=483

Almost all students in the sample were female. This finding was expected, as nursing is viewed as a profession only for women. Table 8 illustrates the racial composition of the sample.

Table 8

Racial Composition of Students

American Indian/ Native American	Asian American/ Oriental	Black/ Afro American	Hispanic Black	Hispanic White	White/ Caucasian
13	21	28	1	11	409
2.7%	4.3%	5.8%	.2%	2.3%	84.7%

N=483

Table 9 indicates the religious preference of the sample group.

Table 9

Religious Preference of Students

Catholic	Protestant	Jewish	Other	None
232	161	18	59	13
48%	33.3%	3.7%	12.2%	2.7%

N=483

The nursing students were asked whether or not they had a major in college prior to entering the nursing program. Table 10 shows how students responded to this item.

Table 10

Prior College Major of Students

Yes	No	No Answer
163	318	2
65.8%	33.7%	.4%

N=483

If students answered yes to the item above, they were asked to state their prior college major. Table 11 shows the results of this item.

Table 11

Prior Major Before Entering Nursing Program

Psychology	Education	Business	Chemistry	Other Health Areas	Others
23	11	9	4	71	44
4.8%	2.3%	1.9%	.8%	14.7%	9.1%

N=483

Students were asked to indicate their cumulative grade-point average. Table 12 categorizes students' grade-point averages into groups.

Table 12

Cumulative Grade-Point Average of Students

Range of G.P.A.	Number of Students in G.P.A. Range
4.00-3.50	85
	18.4%
3.48-3.00	216
	46.8%
2.99-2.00	160
	34.7%

N=461

Twenty-two students did not answer this item. The mean G.P.A. for the 461 students who did answer was 2.93.

Students were asked to state their usual nursing theory grade and their usual clinical nursing grade. Table 13 indicates students' usual nursing theory grade while Table 14 depicts students' usual clinical nursing grade.

Table 13

Students' Usual Grade for Nursing Theory

A	B	C
58	308	107
12%	63.8%	22.2%

N=473

Ten students did not answer this item. The mean nursing theory grade for 473 students was 2.99 and the standard deviation was .983.

Table 14

Students' Usual Grade for Clinical Nursing

A	B	C	Pass/Satisfactory
109	114	10	158
22.6%	23.6%	2.1%	32.7%

N=391

Ninety-two students did not answer this item. Many students stated that they did not receive clinical grades.

Presentation of Data

For the purpose of concise data presentation, the following abbreviations represent the degree of learning as it appears on the survey instrument:

GFL = Greatly Facilitates My Learning

MFL = Moderately Facilitates My Learning

SFL = Somewhat Facilitates My Learning

 UN = Uncertain

SIL = Somewhat Inhibits My Learning

MIL = Moderately Inhibits My Learning

GIL = Greatly Inhibits My Learning

The number which appears below each division in the tables that follow represents the value attached to each response. The number 7 represents GFL or the highest value on the scale while the number 1 represents GIL or the lowest value on the scale.

Teaching Behaviors

This survey measured 18 teaching behaviors of nursing instruc-
tors in the clinical setting. Students indicated that certain teaching
behaviors facilitated their learning more than other teaching behav-
iors. A mean and standard deviation was obtained for each teaching
behavior. Based on the mean score, the teaching behaviors were ranked
in descending order of importance to student learning.

Table 15 illustrates not only the distribution of responses for
each teaching behavior, but also the mean and standard deviation for
each teaching behavior.

Table 15

Distribution of Responses for Teaching Behaviors

Variable Label	Teaching Behavior	FACILITATED				INHIBITED			M	SD
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1		
TB17	Allows me independence as I progress in the clinical experience	404	65	8	3	1	1	1	6.783	.608
		83.6%	13.5%	1.7%	.6%	.2%	.2%	.2%		
TB10	Is willing to help me	404	56	16	2	2	3		6.758	.670
		83.6%	11.6%	3.3%	.4%	.4%	.6%			
TB13	Is willing to answer my questions	392	66	16	2	4	2	1	6.718	.734
		81.2%	13.7%	3.3%	.4%	.8%	.4%	.2%		
TB11	Guides me when I am unsure about something	381	76	15	4	5	1	1	6.692	.744
		78.9%	15.7%	3.1%	.8%	1%	.2%	.2%		

Table 15 continues

| Variable Label | Teaching Behavior | LEARNING | | | | | | | | |
| | | FACILITATED | | | | INHIBITED | | | | |
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1	M	SD
TB15	Gives me verbal feedback when I perform correctly during the clinical experience	385	66	19	4	3	2	4	6.665	.871
		79.7%	13.7%	3.9%	.8%	.6%	.4%	.8%		
TB9	Is available to me on the clinical unit	343	110	20	4	4	2		6.611	.744
		71%	22.8%	4.1%	.8%	.8%	.4%			
TB16	Gives me suggestions to improve my performance when I perform incorrectly during the clinical experience	347	102	16	6	8	2	2	6.573	.890
		71.8%	21.1%	3.3%	1.2%	1.7%	.4%	.4%		
TB8	Is accessible to me during the clinical experience	334	112	27	2	5	3		6.571	.795
		69.2%	23.2%	5.6%	.4%	1%	.6%			

Table 15 continues

| Variable
Label | Teaching
Behavior | FACILITATED | | | | INHIBITED | | | | |
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1	$\underline{M}$	$\underline{SD}$
TB4	Allows me time to prepare for the clinical experience	313 64.8%	129 26.7%	28 5.8%	6 1.2%	4 .8%		3 .6%	6.509	.853
TB1	Clearly defines the goals and objectives of the entire clinical rotation	290 60%	142 29.4%	41 8.5%	6 1.2%	2 .4%	1 .2%	1 .2%	6.460	.805
TB2	Is knowledgeable about my patient	283 58.6%	149 30.8%	42 8.7%	4 .8%	4 .8%	1 .2%		6.449	.783
TB12	Makes me want to ask questions	284 58.8%	142 29.4%	35 7.2%	7 1.4%	10 2.1%	3 .6%	1 .2%	6.379	.983

Table 15 continues

Variable Label	Teaching Behavior	FACILITATED		LEARNING		INHIBITED			M	SD
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1		
TB3	Prior to the clinical experience, gives me information about my patient	273 56.5%	115 23.8%	65 13.5%	22 4.6%	5 1%	3 .6%		6.284	.998
TB18	Demonstrates values concerning patients that I want to incorporate into my own nursing practice	265 59.4%	140 29%	42 8.7%	26 5.4%	7 1.4%	1 .2%	2 .4%	6.282	1.020
TB6	Demonstrates clinical procedures herself	278 57.6%	114 23.6%	56 11.6%	14 2.9%	13 2.7%	6 1.2%	2 .4%	6.251	1.137

Table 15 continues

Variable Label	Teaching Behavior	LEARNING								
		FACILITATED				INHIBITED			$\underline{M}$	$\underline{SD}$
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1		
TB14	Asks me questions about my patient during the clinical experience	250	154	53	4	16	5	1	6.240	1.059
		51.8%	31.9%	11%	.8%	3.3%	1%	.2%		
TB5	Explains clinical procedures herself	238	161	57	9	12	3	3	6.207	1.060
		49.3%	33.3%	11.8%	1.9%	2.5%	.6%	.6%		
TB7	Uses movies or slides to demonstrate clinical procedures	90	150	163	59	13	4	4	5.449	1.137
		18.6%	31.1%	33.7%	12.2%	2.7%	.8%	.8%		

Inspection of the teaching behaviors show similar mean values for many behaviors. In addition, a Cronbach alpha of .90 for the 18 items demonstrates a high intercorrelation among the teaching behaviors. In order to determine additional relationships among these behaviors, a principal-components factor analysis was performed. Factor analysis is a statistical test which summarizes "the information contained in a number of original variables into a smaller set of . . . fundamental constructs assumed to underlie the original variables" (Hair, 1979, p. 218).

The principal-components analysis of the 18 teaching behaviors revealed five factors which had eigenvalues above 1. Table 16 shows the five factors and their respective eigenvalues.

Table 16

Factors Derived From 18 Teaching Behaviors

Factor	Eigenvalue
1	6.69709
2	1.64906
3	1.18757
4	1.10588
5	1.03041

The results of the principal-components analysis are clear:
Each teaching behavior loaded heavily onto a single factor. This
shows that although the 18 items are intercorrelated at a high level,
alpha = .90, nevertheless there are also underlying meaningful sub-
constructs which are shown in Table 17.

Table 17

Subconstructs Derived From 18 Teaching Behaviors

Variable Label	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
TB17	.77675	.18253	.09510	-.04788	.06724
TB15	.75227	.25685	.18955	.10819	.04232
TB16	.71277	.20638	.10468	.22663	.23528
TB13	.67679	.27604	.19161	.21100	-.08101
TB12	.65515	.01359	.17284	.10151	.22172
TB18	.55968	.07748	.06543	.00032	.42991
TB9	.12459	.86435	.13842	.10525	.12806
TB8	.19430	.80733	.18985	.13630	.08352
TB10	.38993	.68373	.07952	.26240	.01957
TB11	.48960	.56396	.09135	.33156	-.01082
TB4	.27832	.21540	.73742	.07084	-.06090
TB3	.13211	-.01078	.72260	.35924	-.08028
TB7	.09210	.17276	.51223	.15916	.31392
TB1	.35398	.36355	.48236	-.39072	.14233
TB6	.14637	.25352	.24443	.75297	.05671
TB5	.20973	.27082	.19579	.71167	.10340
TB14	.21979	.01920	-.06611	.01034	.83167
TB2	.05178	.33904	.33838	.15739	.44463

Five expanded tables will be presented to illustrate the item content of the five factors derived from the principal-components analysis. To conceptualize the teaching behaviors of each factor into a single construct, the investigator assigned a name to each factor. These names are as follows:

Factor 1. The Instructor Who Promotes Students' Growth and Development into the Professional Nurse Role.

Factor 2. The Instructor Who is a Resource Person for Students in the Clinical Setting.

Factor 3. The Instructor Who Creates Meaningful Clinical Learning Experiences for Students.

Factor 4. The Instructor Who Acts as a Role Model When Teaching Clinical Procedures to Students.

Factor 5. The Instructor Who Assists Students to Integrate Theory into the Practice Setting.

Specific teaching behavior descriptors and their respective factor loadings will appear on each table. A brief discussion and interpretation of the findings will follow each table presentation.

Table 18 shows the teaching behaviors which are dimensions of Factor 1.

Table 18

Factor 1. The Instructor Who Promotes Students' Growth and Development into the Professional Nurse Role

Variable Label	Teaching Behavior	Factor Loading
TB17	Allows me independence as I progress in the clinical experience	.77675
TB15	Gives me verbal feedback when I perform correctly during the clinical experience	.75227
TB16	Gives me suggestions to improve my performance when I perform incorrectly during the clinical experience	.71277
TB13	Is willing to answer my questions	.67679
TB12	Makes me want to ask questions	.65515
TB18	Demonstrates values concerning patients that I want to incorporate into my own nursing practice	.55968

When the teaching behaviors were rank-ordered, students stated the teaching behavior which most facilitated their learning was the nursing instructor who allowed them independence as they progressed in the clinical experience. This was also the teaching behavior with the highest loading onto Factor 1.

Two teaching behaviors measured the role of reinforcement as it affects the learning process of nursing students. The instructor who gives students verbal feedback for correct performances and who also

gives suggestions for improvement for incorrect performances loaded heavily onto Factor 1. Using reinforcement in clinical teaching tends to decrease student anxiety. When anxiety levels are reduced, students become confident in their ability to assume the professional role.

The instructor who is willing to answer questions and who makes students want to ask questions are teaching behaviors which increase students' knowledge base, thus promoting their growth and development into professional nurses.

The instructor who demonstrates values concerning patients that students want to incorporate into their own nursing practice is a role model for students. Attitudes about patients the instructor has are conveyed to students on a daily basis in the clinical area. In fact, students have been observed using the same words and actions that their instructor uses. How the instructor acts, what she does, and what she says concerning patients is one way that students become socialized into the professional role. Each teaching behavior in Factor 1 is a part of the instructor who promotes students' growth and development into the professional nurse role.

Table 19 depicts the four teaching behaviors which are dimensions of Factor 2.

Table 19

Factor 2. The Instructor Who is a Resource Person for Students in
the Clinical Setting

Variable Label	Teaching Behavior	Factor Loading
TB9	Is available to me on the clinical unit	.86435
TB8	Is accessible to me during the clinical experience	.80733
TB10	Is willing to help me	.68373
TB11	Guides me when I am unsure about something	.56396

Students indicated that the instructor who is available to
them on the clinical unit was slightly more important for their
learning than the instructor who is accessible. Knowing their in-
structor is present on the unit is reassuring to students. Being
accessible may mean the instructor is not with students. In the
community setting, for example, the nursing instructor is unable to
be with each student on days that students make home visits. The
instructor may be reached only by telephone.

Two teaching behaviors which measured helpfulness of the clin-
ical instructor towards nursing students fell under Factor 2. Stu-
dents stated the instructor who was willing to help them greatly fa-
cilitated their learning; in fact, when the teaching behaviors were
rank-ordered, this was the second most important teaching behavior

for student learning. Similarly, the instructor who guides students
when they are unsure about something was the fourth most important
teaching behavior for student learning. Each teaching behavior in
Factor 2 is a dimension of the instructor who is a resource person
for students in the clinical setting.

Table 20 shows the four teaching behaviors which make up Fac-
tor 3.

Table 20

Factor 3. The Instructor Who Creates Meaningful Clinical Learning
Experiences for Students

Variable Label	Teaching Behavior	Factor Loading
TB4	Allows me time to prepare for the clinical experience	.73742
TB3	Prior to the clinical experience, gives me information about my patient	.72260
TB7	Uses movies or slides to demonstrate clinical procedures	.51223
TB1	Clearly defines the goals and objectives of the entire clinical rotation	.48236

Three teaching behaviors in Factor 3 measured how learning
was facilitated by specific methods the nursing instructor employs
to assist students to prepare for clinical experiences. Students

stated that the instructor who allows them time to prepare for the clinical experience greatly facilitated their learning. Almost as important for learning was having information about their patients prior to each clinical experience. Clear definitions of the goals and objectives of the entire clinical rotation by the instructor was a part of this factor. These are behaviors which describe the instructor who creates meaningful clinical learning experiences for students.

One other teaching behavior loaded onto Factor 3: the instructor who uses movies or slides to demonstrate clinical procedures. Nursing instructors often suggest that movies or slides demonstrating various clinical procedures are available for students' use in the Learning Resource Center. An assumption is made that students interpreted this teaching behavior to mean that, prior to the clinical experience, they could view movies or slides of specific clinical procedures. Students' clinical learning experiences might be more meaningful if they viewed media of specific clinical procedures which were suggested by their nursing instructor.

Table 21 illustrates the teaching behaviors which appeared under Factor 4.

Table 21

Factor 4. The Instructor Who Acts as a Role Model When Teaching
Clinical Procedures to Students

Variable Label	Teaching Behavior	Factor Loading
TB6	Demonstrates clinical procedures herself	.75297
TB5	Explains clinical procedures herself	.71167

The instructor who demonstrates clinical procedures herself facilitated student learning slightly more than the instructor who explains clinical procedures herself. Students stated demonstration by their nursing instructor is the teaching method which most facilitates their learning of clinical procedures. The instructor usually explains a procedure before demonstrating it. She may explain the rationale for the procedure while demonstrating it. These behaviors are dimensions of the instructor who acts as a role model when teaching clinical procedures to students.

Table 22 depicts the teaching behaviors in Factor 5.

Table 22

Factor 5. The Instructor Who Assists Students to Integrate Theory into the Practice Setting

Variable Label	Teaching Behavior	Factor Loading
TB14	Asks me questions about my patient during the clinical experience	.83167
TB2	Is knowledgeable about my patient	.44463

Students indicated the instructor who asks them questions about their patients during the clinical experience was very important for their learning. Most students are eager to demonstrate their knowledge about patients. The instructor who uses certain questioning strategies can assist students to apply their knowledge in patient care situations. The instructor who is knowledgeable about patients can assist students to design individualized care plans based on an assessment of each patient's needs. These teaching behaviors describe the instructor who assists students to integrate theory into the practice setting.

After completion of the factor analysis, additional comparisons were made among three teaching behaviors measuring how students' learning is facilitated by different methods of teaching clinical procedures. The nursing instructor may explain clinical procedures herself, may demonstrate clinical procedures herself, or use movies or slides to demonstrate clinical procedures. Of the 18

teaching behaviors, this latter behavior received the lowest mean

(5.4493). The means for the instructor who explains and who demon-

strates clinical procedures were very similar (6.2070 and 6.2505,

respectively). To determine if the means of the three behaviors

were significantly different, two-tailed paired t-tests were per-

formed. The results of the t-tests are shown on Table 23.

Table 23

Methods of Teaching Clinical Procedures

Variable Label	Teaching Behavior	$\underline{M}$	$\underline{SD}$	t-Value	$\underline{p}$
TB5	Explains clinical procedures herself	6.2070	1.060		
				-0.95	>.35
TB6	Demonstrates clinical procedures herself	6.2505	1.137		
TB5	Explains clinical procedures herself	6.2070	1.060		
				12.22	>.000
TB7	Uses movies or slides to demonstrate clinical procedures	5.4493	1.137		
TB6	Demonstrates clinical procedures herself	6.2505	1.137		
				13.27	>.000
TB7	Uses movies or slides to demonstrate clinical procedures	5.4493	1.137		

The t-value between the instructor who explains and/or who demonstrates clinical procedures was -0.95, which is not statistically significant. The t-value between the instructor who explains clinical procedures herself and the instructor who shows movies or slides to demonstrate clinical procedures is 12.22, which is statistically significant. Likewise, the t-value between the instructor who demonstrates clinical procedures herself and the instructor who shows movies or slides to demonstrate clinical procedures is 13.27, which is also statistically significant. This indicates that students' learning is facilitated more by either demonstration or explanation from their nursing instructor than by movies or slides. There is no statistical difference between demonstration and explanation possibly because they rarely occur separately. However, either or both are clearly more facilitating than movies or slides.

The five constructs encompassing the 18 teaching behaviors in this study appear to be hierarchical: a factor analytic program orders the factors with the largest amount of variance accounted for going to Factor 1, next to Factor 2, and so on. The order of these five factors is such that when beginning with Factor 5 and progressing to Factor 1, each can be seen as contributing to the most important overriding goal, the instructor who promotes students' growth and development into the professional nurse role. The five factors and their respective variances are depicted in Table 24.

Table 24

Teaching Behaviors of Nursing Instructors in the Clinical Setting that Facilitate the Learning of Baccalaureate Nursing Students

Total variance accounted for 64.5%

% of variance Factor 1. The Instructor Who Promotes Students' Growth and Development into the
   37.2   Professional Nurse Role

   Allows me independence as I progress in the clinical experience

   Gives me verbal feedback when I perform correctly during the clinical experience

   Gives me suggestions to improve my performance when I perform incorrectly during the clinical experience

   Is willing to answer my questions

   Makes me want to ask questions

   Demonstrates values concerning patients that I want to incorporate into my own nursing practice

% of variance Factor 2. The Instructor Who is a Resource Person for Students in the
   9.2   Clinical Setting

   Is available to me on the clinical unit

   Is accessible to me during the clinical experience

   Is willing to help me

   Guides me when I am unsure about something

Table 24 continues

% of variance Factor 3.　The Instructor Who Creates Meaningful Clinical Learning Experiences
　　6.6　　　　　　　　　for Students

　　　　　　　　　　　　　　Allows me time to prepare for the clinical experience

　　　　　　　　　　　　　　Prior to the clinical experience, gives me information about my patient

　　　　　　　　　　　　　　Uses movies or slides to demonstrate clinical procedures

　　　　　　　　　　　　　　Clearly defines the goals and objectives of the entire clinical rotation

% of variance Factor 4.　The Instructor Who Acts as a Role Model When Teaching Clinical Procedures
　　5.8　　　　　　　　　to Students

　　　　　　　　　　　　　　Demonstrates clinical procedures herself

　　　　　　　　　　　　　　Explains clinical procedures herself

% of variance Factor 5.　The Instructor Who Assists Students to Integrate Theory into the
　　5.7　　　　　　　　　Practice Setting

　　　　　　　　　　　　　　Asks me questions about my patient during the clinical experience

　　　　　　　　　　　　　　Is knowledgeable

Personal Characteristics

This portion of the survey measured 14 personal characteris-
tics of nursing instructors in the clinical setting. Students indi-
cated that certain personal characteristics facilitated their learn-
ing more than other personal characteristics. A mean and standard
deviation was obtained for each personal characteristic. Based on
the mean score, the personal characteristics were ranked in descend-
ing order of importance to student learning.

Table 25 illustrates not only the distribution of responses
for each personal characteristic, but also the mean and standard de-
viation for each personal characteristic.

Table 25

Distribution of Responses for Personal Characteristics

Variable Label	Personal Characteristic	LEARNING								
		FACILITATED				INHIBITED			M	SD
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1		
PCA14	Is patient with nursing students during the clinical experience	398	58	17	2	2	2	4	6.710	.827
		82.4%	12%	3.5%	.4%	.4%	.4%	.8%		
PCA5	Is organized	385	67	21	6	1	2	1	6.696	.738
		79.7%	13.9%	4.3%	1.2%	.2%	.4%	.2%		
PCA10	Appears to enjoy nursing	350	108	18	6	1			6.656	.633
		72.5%	22.4%	3.7%	1.2%	.2%				
PCA1	Is easy for me to approach during the clinical experience	375	81	14	4	5	3	1	6.655	.802
		77.6%	16.8%	2.9%	.8%	1%	.6%	.2%		

Table 25 continues

| | | FACILITATED | | | | INHIBITED | | | LEARNING | |
Variable Label	Personal Characteristic	GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1	M	SD
PCA12	Appears to enjoy teaching	340	118	18	5	1	1		6.631	.661
		70.4%	24.4%	3.7%	1%	.2%	.2%			
PCA6	Is able to adapt to unexpected events which may occur during the clinical experience	336	119	19	7	1		1	6.611	.701
		69.9%	24.6%	3.9%	1.4%	.2%		.2%		
PCA7	Appears calm during the clinical experience	342	102	25	8	2	1	3	6.571	.852
		70.8%	21.1%	5.2%	1.7%	.4%	.2%	.6%		
PCA8	Is an honest person	349	79	35	18	1	1		6.561	.826
		72.3%	16.4%	7.2%	3.7%	.2%	.2%			

Table 25 continues

Variable Label	Personal Characteristic	FACILITATED			LEARNING	INHIBITED				
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1	M	SD
PCA13	Is friendly during the clinical experience	319	116	35	7	1	3	2	6.507	.870
		66%	24%	7.2%	1.4%	.2%	.6%	.4%		
PCA4	Shows compassion towards patients and their families	289	132	41	21				6.427	.823
		59.8%	27.3%	8.5%	4.3%					
PCA11	Shares her personal nursing experiences with nursing students	278	147	45	8	4	1		6.416	.819
		57.6%	30.4%	9.3%	1.7%	.8%	.2%			
PCA2	Is a kind person	261	153	50	14	3	1	1	6.342	.886
		54%	31.7%	10.4%	2.9%	.6%	.2%	.2%		

Table 25 continues

| Variable Label | Personal Characteristic | LEARNING | | | | | | | | |
| | | FACILITATED | | | | INHIBITED | | | | |
		GFL 7	MFL 6	SFL 5	UN 4	SIL 3	MIL 2	GIL 1	$\underline{M}$	$\underline{SD}$
PCA3	Shows empathy towards nursing students in the clinical experience	281	127	53	10	4	4	4	6.331	1.040
		58.2%	26.3%	11%	2.1%	.8%	.8%	.8%		
PCA9	Has a sense of humor	215	167	67	26	4	3	1	6.139	1.004
		44.5%	34.6%	13.9%	5.4%	.8%	.6%	.2%		

Inspection of the personal characteristics show similar mean values for many characteristics. In addition, a Chronbach alpha of .92 for the 14 items demonstrates a high intercorrelation among the personal characteristics. In order to determine additional relationships among these characteristics, a principal-components factor analysis was done.

The principal-components analysis of the 14 personal characteristics revealed three factors which had eigenvalues above 1. Table 26 shows the three factors and their respective eigenvalues.

Table 26

Factors Derived From 14 Personal Characteristics

Factor	Eigenvalue
1	6.74826
2	1.18820
3	1.05122

As with the teaching behaviors, the results of the principal-components analysis are clear: Each personal characteristic loaded heavily onto a single factor. The third factor contained three personal characteristics. Even though the loading was smaller, one of the three characteristics from the third factor was assigned to another factor because it was similar to other dimensions in the factor.

Although the 14 items are intercorrelated at a high level, alpha =

.92, nevertheless there are also underlying meaningful subcontructs

which are shown in Table 27.

Table 27

Subconstructs Derived From 14 Personal Characteristics

Variable Label	Factor 1	Factor 2	Factor 3
PCA1	.81507	.19973	.10068
PCA14	.80924	.33233	.06795
PCA3	.68867	.33360	.28373
PCA13	.68688	.48490	.14003
PCA7	.60562	.17278	.53828
PCA5	.59672	-.02088	.52586
PCA2	.57436	.36847	.31464
PCA9	.24499	.75662	.16049
PCA11	.23045	.70634	.08164
PCA10	.15290	.69889	.31517
PCA12	.33323	.58613	.33888
PCA4	-.05773	.32145	.73084
PCA8	.25146	.29131	.64179
PCA6	.46035	.11107	.63572

Three expanded tables will be presented to illustrate the item content of the three factors derived from the principal-components analysis. To conceptualize the personal characteristics of each factor into a single construct, the investigator assigned a name to each factor. These names are as follows:

Factor 1. The Instructor Who Creates a Climate Conducive to Students' Learning.

Factor 2. The Instructor Who Exhibits Satisfaction with the Nursing-Teaching Role.

Factor 3. The Instructor Who Shows Concern for and Consideration of Others.

Specific personal characteristic descriptors and their respective factor loadings will appear on each table. A brief discussion and an interpretation of the findings will follow each table presentation.

Table 28 shows the personal characteristics which are dimensions of the instructor who creates a climate conducive to students' learning.

Table 28

Factor 1. The Instructor Who Creates a Climate Conducive to
Students' Learning

Variable Label	Personal Characteristic	Factor Loading
PCA1	Is easy for me to approach during the clinical experience	.81507
PCA14	Is patient with nursing students during the clinical experience	.80924
PCA3	Shows empathy towards nursing students in the clinical experience	.68867
PCA13	Is friendly during the clinical experience	.68688
PCA7	Appears calm during the clinical experience	.60562
PCA5	Is organized	.59672
PCA2	Is a kind person	.57436
PCA6	Is able to adapt to unexpected events which may occur during the clinical experience	.46035

The nursing instructor who is easy to approach would be one
who is patient with students. Conversely, a patient instructor would
be an easy person for students to approach. The instructor who is
friendly to students during the clinical experience would be a char-
acteristic that would enhance approachability.

The nursing instructor who is a kind person and who shows em-
pathy towards students would make students feel comfortable in the
clinical setting.

The instructor who is organized, who adapts to unexpected events
which may occur during the clinical experience, and who appears calm
during the clinical experience were personal characteristics which
measured the organizational ability of the nursing instructor. The
instructor who has these characteristics makes students feel secure in
an unpredictable clinical environment. Each personal characteristic
in Factor 1 is a descriptor of the instructor who creates a climate
conducive to students' learning.

Table 29 depicts the personal characteristics which are part of
Factor 2.

Table 29

Factor 2. The Instructor Who Exhibits Satisfaction with the Nursing-
Teaching Role

Variable Label	Personal Characteristic	Factor Loading
PCA9	Has a sense of humor	.75662
PCA11	Shares her personal nursing experiences with nursing students	.70634
PCA10	Appears to enjoy nursing	.69889
PCA12	Appears to enjoy teaching	.58613

Although the instructor who has a sense of humor received the lowest mean score (6.139) of 14 personal characteristics, it had the highest loading value on Factor 2.

The instructor who shares her personal nursing experiences with students and who appears to enjoy nursing seem equally important for student learning. Perhaps as students are striving to become professional nurses, they identify with the instructor who appears to enjoy nursing. Not nearly as important for student learning is the nursing instructor who appears to enjoy teaching. Each personal characteristic in Factor 2 is a dimension of the instructor who exhibits satisfaction with the nursing-teaching role.

Table 30 illustrates the personal characteristics which are part of Factor 3.

Table 30

Factor 3. The Instructor Who Shows Concern for and Consideration of Others

Variable Label	Personal Characteristic	Factor Loading
PCA4	Shows compassion towards patients and their families	.73084
PCA8	Is an honest person	.64179

Interpretation of this factor is difficult because the characteristics seem to measure different attributes. The compassionate nurse is one who sympathizes with patients and their families. The compassionate nurse is a gentle, tender person. The nurse who is an

honest person would be trustworthy, fair, and equitable. Students in-
dicated both personal characteristics were important for their learn-
ing. These personal characteristics are dimensions of the instructor
who shows concern for and consideration of others.

The three constructs encompassing the 14 personal characteris-
tics in this study appear to be hierarchical: a factor analytic pro-
gram orders the factors with the largest amount of variance accounted
for going to Factor 1, next to Factor 2, and last to Factor 3. The
order of these three factors is such that when beginning with Factor 3
and progressing to Factor 1, each can be seen as contributing to the
most important overriding goal, the instructor who creates a climate
conducive to students' learning. The three factors and their respec-
tive variances are depicted in Table 31.

Table 31

Personal Characteristics of Nursing Instructors in the Clinical Setting that Facilitate the Learning
of Baccalaureate Nursing Students

Total variance accounted for 64.2%

% of variance Factor 1. The Instructor Who Creates a Climate Conducive to Students' Learning
    48.2

Is easy for me to approach during the clinical experience

Is patient with nursing students during the clinical experience

Shows empathy towards nursing students in the clinical experience

Is friendly during the clinical experience

Appears calm during the clinical experience

Is organized

Is a kind person

Is able to adapt to unexpected events which may occur during the
clinical experience

Table 31 continues

% of variance Factor 2. <u>The Instructor Who Exhibits Satisfaction with the Nursing-Teaching Role</u>
    8.5

Has a sense of humor

Shares her personal nursing experiences with nursing students

Appears to enjoy nursing

Appears to enjoy teaching

% of variance Factor 3. <u>The Instructor Who Shows Concern for and Consideration of Others</u>
    7.5

Shows compassion towards patients and their families

Is an honest person

CHAPTER V

DISCUSSION

Summary of the Study and Interpretation of the Findings

Creating a climate for learning in an unpredictable clinical

setting is the responsibility of the nursing instructor. To promote

effective learning, the instructor must acknowledge that there are

multiple variables inherent in clinical teaching over which she has

little or no control. For example, students may be anxious because

they must apply theoretical knowledge to nursing practice in an envi-

ronment unlike most other learning environments. Moreover, the nur-

sing instructor may be anxious because she does not have the power to

control the learning environment as she does in the classroom setting.

The instructor does have the power to control one variable--her own

behavior. How she acts, what she says, and what she does may have a

profound effect on student learning.

The investigator was concerned with the following issue: Are

the teaching behaviors identified in the nursing literature suffi-

cient to define what characterizes the effective clinical instructor?

Or are other behaviors necessary for effective clinical teaching?

Senior baccalaureate nursing students were asked to identify

teaching behaviors and personal characteristics of nursing instruc-

tors in the clinical setting which facilitated and/or inhibited their

learning. The students identified 20 teaching behaviors and 18 personal characteristics as either facilitating or inhibiting their learning. These items were placed on an instrument with a Likert-type scale in order to measure the degree to which each teaching behavior and personal characteristic facilitated and/or inhibited student learning. The instrument was piloted on 85 senior nursing students from three baccalaureate nursing programs. Data analysis revealed that two teaching behaviors and four personal characteristics were redundant; thus, these items were eliminated from the instrument. The instrument used in the study contained 18 teaching behaviors and 14 personal characteristics of nursing instructors in the clinical setting.

A survey of 483 junior and senior baccalaureate nursing students was conducted to determine the degree to which their learning was facilitated or inhibited by these 18 teaching behaviors and 14 personal characteristics. A mean and standard deviation was obtained for each item. Based on the mean score, the items were ranked in descending order of importance to student learning. A principal-components factor analysis of the 18 teaching behaviors yielded five factors. The principal-components factor analysis of the 14 personal characteristics yielded three factors.

The teaching behaviors and personal characteristics which are dimensions of each factor will be presented and discussed. Comparisons and/or contrasts with the nursing literature will be made.

Teaching Behaviors: Five Factors and Comparisons with the
Nursing Literature

Factor 1: The Instructor Who Promotes Students' Growth and
Development into the Professional Nurse Role

Six teaching behaviors were dimensions of Factor 1. The teach-
ing behavior with the highest factor loading measured how student
learning is influenced by the instructor who permits students to func-
tion more independently as the clinical experience progresses. Stu-
dents stated their learning was facilitated by the nursing instructor
who allowed them independence as they progressed in the clinical expe-
rience. This finding supports other studies (Bregg, 1958; Jacobson,
1966; Layton, 1969; Wong, 1978; O'Shea & Parsons, 1979; Brown, 1981;
Keen & Dear, 1983). Promoting a sense of independence is cited in on-
ly 2 of 17 articles written during the 1980s. However, the students
indicated this teaching behavior was important for effective clinical
teaching.

Two teaching behaviors measured how feedback or reinforcement
facilitate student learning. Students stated the nursing instructor
who gives them verbal feedback when they perform correctly during the
clinical experience facilitated their learning. This supports previ-
ous studies in the literature (Jacobson, 1966; Layton, 1969; Mutze-
baugh & Dunn, 1976; Wong, 1978; O'Shea & Parsons, 1979; Brown, 1981;
Gardner, 1981; Karns & Schwab, 1982; Marson, 1982; Young, 1983).
When their instructor praises correct clinical performances, learning
is facilitated for students because their efforts to achieve are ac-
knowledged. Students stated the nursing instructor who gives them

suggestions to improve their performance when they perform incorrectly during the clinical experience also facilitated their learning. Other investigators cite this behavior as important for effective clinical teaching (Jacobson, 1966; Kiker, 1973; Hardy, 1980; Sheahan, 1980; Griffith & Bakanauskas, 1983).

Two of three teaching behaviors which reflect the role that questioning plays in the learning of nursing students in the clinical area were dimensions of Factor 1. Students stated the instructor who is willing to answer their questions was somewhat more important for their learning than the instructor who makes them want to ask questions. Data analysis indicated the nursing instructor who is willing to answer their questions greatly facilitated learning for 80 percent of students. According to the literature, the nursing instructor who is willing to answer questions promotes effective teaching (Layton, 1969; Lipson, 1972; Wong, 1978; O'Shea & Parsons, 1979; Meleca et al., 1981). However, only 59 percent of students stated their learning was greatly facilitated by the nursing instructor who makes them want to ask questions. Earlier studies by Jacobson (1966) and Busl (1981) confirm that the instructor who makes students feel free to ask questions is an effective teaching behavior.

The final teaching behavior on Factor 1 measured how the nursing instructor's values affect student learning. Students stated the instructor who demonstrates values concerning patients that they want to incorporate into their own nursing practice facilitated their learning. The nursing instructor exhibits values which make her a role model for her students. Imitation of and identification with

the nursing instructor, which is important for students' socializa-
tion into the professional nurse role, is well-documented in the lit-
erature in numerous studies (Hall, 1959; Jourard, 1964; Spalding,
1964; Hassenplug, 1965; Barham, 1965; Jacobson, 1966; Lowery et al.,
1971; Wood, 1971; Lipson, 1972; Kiker, 1973; Mutzebaugh & Dunn, 1976;
O'Shea & Parsons, 1979; Sheahan, 1980; Wong, S., & Wong., 1980;
Brown, 1981; Gardner, 1981; Grassi-Russo & Morris, 1981; Meleca et
al., 1981; Marson, 1982; Griffith & Bakanauskas, 1983). Each cited
specific behaviors; however, all categorized these behaviors under the
general concept of role modeling. The nursing instructor who is a
role model for students is the teaching behavior cited most frequently
in the literature as essential for effective clinical teaching.

Factor 1, the instructor who promotes students' growth and de-
velopment into the professional nurse role, was the most important
factor of 18 teaching behaviors in this study. In fact, 37.2 percent
of the variance was accounted for by Factor 1. In clinical teaching
situations, it would be most important for the nursing instructor to
demonstrate the six teaching behaviors which are dimensions of Factor
1. For example, the instructor should allow students independence as
they progress in the clinical experience. She should give students
verbal feedback for correct performances and suggestions for improve-
ment for incorrect performances. She would promote student development
into the professional nurse role by answering students' questions and
by making students want to ask questions. Lastly, the instructor
should demonstrate values concerning patients that students want to
incorporate into their own nursing practice.

Factor 2: The Instructor Who is a Resource Person for Students
in the Clinical Setting

Four teaching behaviors were dimensions of Factor 2. Each be-
havior shows how essential it is for nursing instructors to offer
support to students in the clinical setting. The teaching behavior
on this factor that most facilitated student learning was the nursing
instructor who is available to students on the clinical unit. Simi-
larly, the instructor who is accessible during the clinical experi-
ence was very important for student learning. These findings support
several earlier studies (Barham, 1965; Jacobson, 1966; Kiker, 1973;
Wong, 1978; O'Shea & Parsons, 1979; Gardner, 1981; Karns & Schwab,
1982; Marson, 1982).

The nursing instructor who is willing to help students and who
guides them when they are unsure about something are two teaching be-
haviors which facilitated student learning. O'Shea & Parsons (1979)
and Stephenson (1984) stated the nursing instructor who is willing to
help students promotes effective clinical teaching. Jacobson (1966)
found that the effective nursing instructor gives guidance and support
to nursing students in difficult situations.

Factor 2, the instructor who is a resource person for students
in the clinical setting, was the second most important factor in this
study, accounting for 9.2 percent of the variance. The nursing in-
structor should be available and accessible to her students. She
should be willing to help them and guide them when they are unsure
about something. All four teaching behaviors make the instructor a
resource person for her students.

Factor 3: The Instructor Who Creates Meaningful Clinical Learning Experiences for Students

Three teaching behaviors indicated how student learning was influenced by the nursing instructor who uses specific techniques which assist students to prepare for clinical experiences. Nursing students stated the instructor who allows them time to prepare for the clinical learning experience facilitated their learning. This supports earlier studies conducted during the 1960s (Spalding, 1964; Skinner, 1964; Jacobson, 1966). Although the specific teaching behavior, time to prepare, has not been cited since 1966, students in this study indicated this behavior was important for effective clinical teaching.

The instructor who gives them information about their patients prior to the clinical experience facilitated students' learning. Only O'Shea & Parsons (1979) cite a similar behavior, the instructor who plans assignments, as important for effective clinical teaching. Clear definitions of the goals and objectives of the entire clinical rotation by the nursing instructor facilitated learning for all students in this study. Previous studies indicate that setting objectives is important for teaching effectiveness (Spalding, 1964; Skinner, 1964; Barham, 1965; Jacobson, 1966; O'Shea & Parsons, 1979; Sheahan, 1980; Wong, S., & Wong, J., 1980; Meleca et al., 1981; Marson, 1982; Young, 1983).

Factor 3, the instructor who creates meaningful clinical learning experiences for nursing students, was the third most important factor in this study, accounting for 6.6 percent of the variance.

Allowing students time to prepare for clinical experiences, as well as giving them information about their patients prior to the clinical experiences, are behaviors that promote meaningful learning. Clear definitions of the goals and objectives of the entire clinical rotation by the instructor also makes clinical learning experiences more meaningful.

One additional teaching behavior loaded onto Factor 3: the instructor who uses movies or slides to demonstrate clinical procedures. This behavior does not seem similar to the others; perhaps the loading on this factor stems from students having interpreted this to mean they could prepare for their clinical experiences by viewing media of specific procedures which were suggested by their instructor. Thus, the opportunity to view movies or slides might be seen by students as created by the instructor in the same sense as the other items in this factor even though the instructor did not literally create the instructional media.

Factor 4: The Instructor Who Acts as a Role Model When Teaching Clinical Procedures to Students

Two teaching behaviors were dimensions of Factor 4: the instructor who demonstrates clinical procedures herself and the instructor who explains clinical procedures herself. Students indicated that demonstration by their nursing instructor was the teaching method most preferred for learning clinical procedures. This supports other studies which state that the demonstration of skills is important for effective clinical teaching (Jacobson, 1966; Stevens, 1976; Sheahan,

1980; Hardy, 1980; Coles et al., 1981; Gardner, 1981). Explanation, which usually occurs with demonstration, also is supported by Stevens (1976) and Gardner (1981) as an effective clinical teaching method.

Some nursing instructors neither explain nor demonstrate clinical procedures. Instead, their students must view these procedures on movies, slides, or filmloops. It is interesting to note that the movies or slides item did not load onto the same factor as demonstration and explanation, indicating students do not find the procedures equivalent. In addition, the mean rating for movies and slides was lower than the other two methods. A two-tailed t-test comparing demonstration and/or explanation with the use of movies or slides revealed significant differences favoring demonstration and explanation by their nursing instructor rather than movies or slides for students in this study. Based on these findings, nursing instructors who do not demonstrate clinical procedures should consider the importance of role modeling in the learning of psychomotor skills. Movies and slides of clinical procedures should be used as an adjunct to, not as a substitute for, the demonstration of these procedures by a live model, the clinical instructor herself.

Factor 4, the instructor who acts as a role model when teaching clinical procedures to students, was the fourth most important factor, accounting for 5.8 percent of the variance. Two teaching behaviors emerged as dimensions of this factor: the instructor who demonstrates clinical procedures herself; and, the instructor who explains clinical procedures herself.

Factor 5: The Instructor Who Assists Students to Integrate
Theory into the Practice Setting

Two teaching behaviors were dimensions of Factor 5. One behav-
ior concerned the role that questioning plays in the learning of nur-
sing students in the clinical setting. The instructor who asks stu-
dents questions about their patients greatly facilitated learning for
only 52 percent of the students. This behavior is cited as important
for effective clinical teaching in the recent literature (Wong, S., &
Wong, J., 1980; Craig & Page, 1981; Meleca et al., 1981; Marson,
1982). This behavior loaded heavily onto Factor 5. However, if the
five factors are considered hierarchical, the instructor who asks
students questions is not as important for student learning as two
teaching behaviors which are dimensions of Factor 1: the instructor
who is willing to answer students' questions; and, the instructor who
makes students want to ask questions.

Results of this study lend support to the investigator's belief
that the nursing instructor who asks students questions about their
patients does not facilitate learning as much as being willing to an-
swer students' questions. Some nursing students have said they are
so nervous during the clinical experience they forget everything they
know when questioned by their instructor. Their learning may be in-
hibited because their anxiety is increased. The instructor should
refrain from questioning such students until they become more com-
fortable in the clinical setting. Other nursing students are eager
to answer questions about their patients. The instructor should use
various questioning strategies to promote learning in students who

seem to feel at ease in the clinical setting. Recognizing individual differences in how students learn is essential for effective clinical teaching.

The instructor who is knowledgeable about students' patients was a dimension of Factor 5. This is an effective clinical teaching behavior well-documented in the literature (Hassenplug, 1965; Jacobson, 1966; O'Shea & Parsons, 1979; Gardner, 1981; Karns & Schwab, 1982; Marson, 1982).

Factor 5, the instructor who assists students to integrate theory into the practice setting, was the least important factor in this study, accounting for 5.7 percent of the variance. The instructor who asks students questions about their patients and who is knowledgeable about students' patients are the two teaching behaviors that are dimensions of Factor 5.

To summarize, the five factors which encompass the 18 teaching behaviors in this study appear to be hierarchical. When beginning with Factor 5 and progressing to Factor 1, each factor contributes to the most important overriding goal, the instructor who promotes students' growth and development into the professional nurse role.

Personal Characteristics: Three Factors and Comparisons with the
Nursing Literature

Factor 1:   The Instructor Who Creates a Climate Conducive to Students' Learning

Eight personal characteristics loaded onto Factor 1. The nursing instructor who is easy to approach during the clinical experience was the most important characteristic for student learning. The instructor who is approachable facilitates student learning according to recent studies (Marson, 1982; Stephenson, 1984). The nursing instructor who is patient with students during the clinical experience facilitated learning for students in this study. Being patient is a characteristic of effective clinical teaching found in earlier studies (Jacobson, 1966; O'Shea & Parsons, 1979; Marson, 1982).

The nursing instructor who shows empathy towards nursing students in the clinical experience facilitated students' learning. Empathic behavior towards students is described in several studies as a trait of effective clinical teaching (Bregg, 1958; Barham, 1965; Jacobson, 1966; Layton, 1969; Lowery et al., 1971; Wood, 1971; Kiker, 1973; Wong, 1978; O'Shea & Parsons, 1979; Coles et al., 1981; Grassi-Russo & Morris, 1981; Karns & Schwab, 1982; Marson, 1982; Griffith & Bakanauskas, 1983).

Students indicated the nursing instructor who is friendly during the clinical experience facilitated their learning. Friendliness is cited as a characteristic of effective clinical teaching in three studies (O'Shea & Parsons, 1979; Marson, 1982; Stephenson, 1984).

Three personal characteristics measured the nursing instructor's organizational ability. The instructor who is organized facilitated student learning and is considered an effective clinical teaching characteristic in several studies (Spalding, 1964; Skinner, 1964; Jacobson, 1966; Kiker, 1973; Sheahan, 1980; Wong, S., & Wong. J., 1980; Meleca et al., 1981; Marson, 1982; Young, 1983). Students stated the instructor who is able to adapt to unexpected events which may occur during the clinical experience facilitated their learning. This personal characteristic was cited specifically by Jacobson (1966) who wrote that an effective nursing instructor can "plan experiences for students when new and unexpected learning situations occur" (p. 223). The nursing instructor who appears calm during the clinical experience facilitated student learning. Calmness is cited as a characteristic of effective clinical teaching in other studies (Barham, 1965; Jacobson, 1966; Lowery et al., 1971; Blainey, 1980).

Students in this study indicated their learning was facilitated by the instructor who is a kind person. However, kindness is not cited in the literature as a characteristic of effective clinical teaching.

Factor 1, the instructor who creates a climate conducive to students' learning, was the most important factor of 14 personal characteristics in this study. In fact, 48.2 percent of the variance was accounted for by Factor 1. In clinical teaching situations, it would be most important for the nursing instructor to demonstrate the eight personal characteristics that are dimensions of Factor 1. For example, the instructor should be a person students can easily approach.

Being patient, empathic, and friendly towards nursing students helps

create a climate conducive to learning. In addition, the instructor

who is organized, calm, and able to adapt to unexpected events during

the clinical experience creates a climate conducive to learning. The

students stated that kindness is another personal characteristic of

their nursing instructor that is important for effective clinical

teaching.

Factor 2: The Instructor Who Exhibits Satisfaction with the Nursing-Teaching Role

Four personal characteristics were dimensions of Factor 2. The

nursing instructor who has a sense of humor loaded most heavily onto

this factor and is a characteristic of effective clinical teaching

consistently cited in the literature (Jacobson, 1966; Wood, 1971;

Kiker, 1973; Gardner, 1981; Marson, 1982).

Three personal characteristics measured how the instructor who

shares her personal nursing experiences with students, who appears to

enjoy nursing, and who appears to enjoy teaching facilitated student

learning. The instructor who shares her personal nursing experiences

with students facilitated their learning. This finding is supported

by Sheahan (1980) who wrote that the instructor who shares her own

nursing experiences facilitates student learning. Students stated

their learning was facilitated by the instructor who appears to enjoy

nursing. This personal characteristic is well-documented in the lit-

erature (Jourard, 1964; Spalding, 1964; Hassenplug, 1965; Jacobson,

1966; Wood, 1971; Gardner, 1981; Marson, 1982; Griffith & Bakanaus-

kas, 1983).

Factor 2, the instructor who exhibits satisfaction with the nursing-teaching role, was the second most important factor in this study, accounting for 8.5 percent of the variance. The instructor who has a sense of humor, who shares her personal nursing experiences with students, and who appears to enjoy nursing and teaching are dimensions of this factor.

Factor 3: The Instructor Who Shows Concern for and Consideration of Others

Two personal characteristics were dimensions of Factor 3: the instructor who shows compassion towards patients and their families; and, the instructor who is an honest person. The nursing instructor who shows compassion towards patients and their families facilitated student learning. Compassion is described as a factor in effective clinical teaching in four studies (Jacobson, 1966; Lowery et al., 1971; Wood, 1971; Brown, 1981).

Nursing students in this study indicated the instructor who is an honest person facilitated their learning. This personal characteristic does not appear in the literature as a component of effective clinical teaching.

Factor 3, the instructor who shows concern for and consideration of others, was the least important factor of the personal characteristics in this study. It accounted for 7.5 percent of the variance. The instructor who shows compassion towards patients and families and who is an honest person, which are dimensions of Factor 3, are not as important for learning as the personal characteristics in

Factor 1 and Factor 2.

To summarize, the three factors that encompass the 14 personal characteristics in this study appear to be hierarchical. When beginning with Factor 3 and progressing to Factor 1, each factor contributes to the most important overriding goal, the instructor who creates a climate conducive to students' learning.

Implications for Nursing Education

Clinical teaching is unique to nursing and other health care professions. However, the nursing literature contains few tools that measure clinical teaching effectiveness. Moreover, only three recent studies are concerned solely with nursing students' identification of behaviors and characteristics necessary for effective clinical teaching (Grassi-Russo & Morris, 1981; Coles et al., 1981; Marson, 1982). The majority of earlier studies relied on faculty perceptions of behaviors and characteristics necessary for effective clinical teaching rather than direct student report.

A study of baccalaureate nursing students was conducted to determine whether teaching behaviors of nursing instructors in the clinical setting identified in the literature are sufficient for effective clinical teaching or whether other behaviors are necessary for effective clinical teaching. The study measured how student learning was facilitated by 18 teaching behaviors and 14 personal characteristics of nursing instructors in the clinical setting. The study differs from many recent studies because it is concerned only with students' perceptions of those teaching behaviors and personal characteristics

of nursing instructors in the clinical setting that facilitate their learning.

All 18 teaching behaviors of nursing instructors in the clinical setting identified by nursing students as facilitating their learning were supported by the literature. Twelve of 14 personal characteristics of nursing instructors in the clinical setting identified by nursing students as facilitating their learning were supported by the literature. However, students in this study cited two personal characteristics not supported by the literature as characteristics which facilitated their learning: the nursing instructor who is a kind person; and, the nursing instructor who is an honest person.

The nursing instructor who is a kind person loaded onto Factor 1, the instructor who creates a climate conducive to students' learning. Synonyms for a kind person are as follows: good, warmhearted, humane, considerate, charitable, helpful, and showing sympathy and understanding. In this study, 54 percent of students stated the nursing instructor who is a kind person greatly facilitated their learning while 32 percent of students stated the kind instructor moderately facilitated their learning. Clearly, the nursing instructor who is a kind person is important for student learning in the clinical setting.

The nursing instructor who is an honest person loaded onto Factor 3, the instructor who shows concern for and consideration of others. Synonyms for the honest person are as follows: genuine, not taking advantage of, equitable, and fair. In this study, 72 percent of students stated the instructor who is an honest person greatly facilitated their learning while nearly 17 percent of students stated

the honest instructor moderately facilitated their learning. Clearly, the nursing instructor who is an honest person is important for student learning in the clinical setting.

To summarize, 96 percent of students in this study stated that the nursing instructor who is a kind person facilitated their learning in the clinical setting. Similarly, 97 percent of students in this study stated that the nursing instructor who is an honest person facilitated their learning in the clinical setting. Based on the findings of this study, kindness and honesty appear to be important personal characteristics necessary for effective clinical teaching.

Other investigators have not identified kindness and honesty as personal characteristics important for effective clinical teaching. The reasons why students in this study identified kindness and honesty as personal characteristics of nursing instructors that are necessary for effective clinical teaching are not known. Showing kindness means that one has to consider another person's feelings. Similarly, the instructor who is an honest person is genuine. She is a fair person who does not take advantage of others. The investigator speculates that nursing students yearn for an instructor who is not only a kind person but also an honest person. This may stem from the fact that kindness and honesty often are not evident in society. Therefore, nursing students want nursing instructors, as their role models, to be kind and honest people.

This study reveals that, for the most part, the teaching behaviors and personal characteristics identified in the nursing literature are sufficient to define what characterizes the effective clinical

instructor. However, two personal characteristics not identified in the nursing literature seem necessary for effective clinical teaching: kindness and honesty.

Nurse educators who teach baccalaureate nursing students in the clinical setting should try to use these behaviors of effective clinical teaching. Moreover, nursing instructors should make every effort to exhibit the personal characteristics identified in this study as necessary for clinical teaching effectiveness. In order to know if instructors are using the teaching behaviors and personal characteristics of effective clinical teaching, instructors should be evaluated on their behaviors. An evaluation tool incorporating these teaching behaviors and personal characteristics could be designed. Students could indicate whether the nursing instructor demonstrated each behavior or characteristic. Using this evaluation tool would be a valid indicator of clinical teaching effectiveness. Some schools of nursing use tools from other disciplines or tools which measure classroom teaching effectiveness to evaluate clinical teaching. However, such tools are not valid because they do not contain all the teaching behaviors and personal characteristics peculiar to and necessary for effective clinical teaching.

Recommendations for Further Study

A non-probability convenience sample of baccalaureate nursing students from seven institutions in northern Illinois was selected for this study. Therefore, the findings are not generalizable to nursing students in other parts of the country. Recommendations for further

study are as follows:

Replicate the study using a cluster sampling of baccalaureate in-
stitutions throughout the United States. To enhance generalizability,
choose a random sample of institutions within each cluster. Compare
the means of each teaching behavior and personal characteristic with
the means for these items in the original study. Perform a principal-
components factor analysis to determine if similar factors emerge.
Ascertain whether students select similar teaching behaviors and per-
sonal characteristics as dimensions of particular factors. Compare
these findings with the results of the original study.

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APPENDIX A

CONSENT FORM

Dear Junior or Senior Nursing Student,

I am conducting a research survey about nursing instructors.
I would like to know how your learning is affected by certain teach-
ing behaviors and personal characteristics of nursing instructors
in the clinical setting.

Participation in this study is voluntary. You are not required
to participate and your grade in this course will not be affected.
If you choose to participate, you will remain ANONYMOUS. You cannot
be identified in any way since you will tear off this consent form
and place it in a separate box from your questionnaire. You may
withdraw from participation at any time.

I freely and voluntarily consent to my participation in the
research project.

(Signature of Investigator)   (Signature of Student)

(Date)   (Date)

For the purpose of this survey, definitions are given for the following terms:

TEACHING BEHAVIORS: Actions by a nursing instructor which impart information and skill in the clinical setting.

FACILITATING LEARNING: Teaching behaviors of a nursing instructor which make your learning easier in the clinical setting.

INHIBITING LEARNING: Teaching behaviors of a nursing instructor which interfere with your learning in the clinical setting.

PERSONAL CHARACTERISTICS: Individual traits or qualities of a nursing instructor.

FACILITATING LEARNING: Personal characteristics of a nursing instructor which make your learning easier in the clinical setting.

INHIBITING LEARNING: Personal characteristics of a nursing instructor which interfere with your learning in the clinical setting.

DIRECTIONS: After each TEACHING BEHAVIOR, place an "x" in the box indicating to what degree your learning is either FACILITATED OR INHIBITED

TEACHING BEHAVIORS The nursing instructor who	Greatly Facilitates My Learning	Moderately Facilitates My Learning	Somewhat Facilitates My Learning	Uncertain	Somewhat Inhibits My Learning	Moderately Inhibits My Learning	Greatly Inhibits My Learning
Clearly defines the goals and objectives of the entire clinical rotation							
Is knowledgeable about my patient							
Prior to the clinical experience, gives me information about my patient							
Allows me time to prepare for the clinical experience							
Explains clinical procedures herself							
Demonstrates clinical procedures herself							
Uses movies or slides to demonstrate clinical procedures							
Is accessible to me during the clinical experience							
Is available to me on the clinical unit							

TEACHING BEHAVIORS The nursing instructor who	Greatly Facilitates My Learning	Moderately Facilitates My Learning	Somewhat Facilitates My Learning	Uncertain	Somewhat Inhibits My Learning	Moderately Inhibits My Learning	Greatly Inhibits My Learning
Is willing to help me							
Guides me when I am unsure about something							
Makes me want to ask questions							
Is willing to answer my questions							
Asks me questions about my patient during the clinical experience							
Gives me verbal feedback when I perform correctly during the clinical experience							
Gives me suggestions to improve my performance when I perform incorrectly during the clinical experience							
Allows me independence as I progress in the clinical experience							
Demonstrates values concerning patients that I want to incorporate into my own nursing practice							

DIRECTIONS: After each PERSONAL CHARACTERISTIC, place an "X" in the box indicating to what degree your learning is either FACILITATED OR INHIBITED.

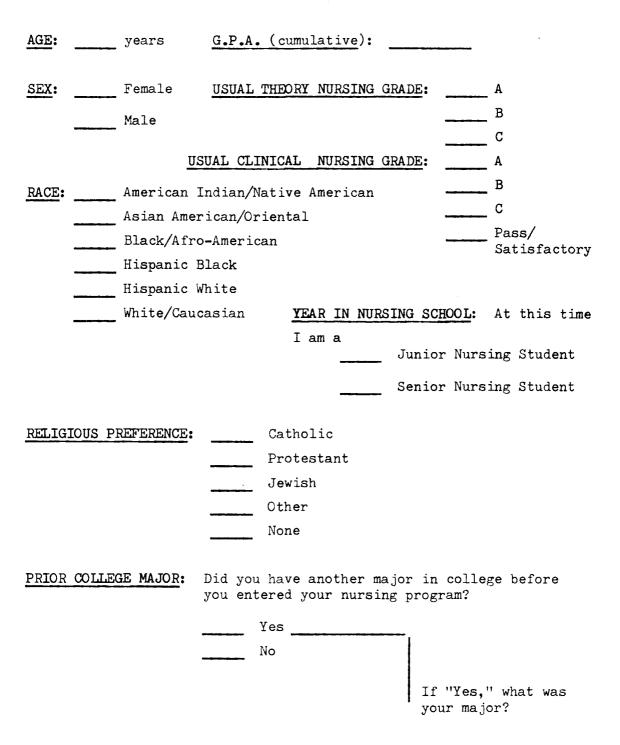| PERSONAL CHARACTERISTICS The nursing instructor who	Greatly Facilitates My Learning	Moderately Facilitates My Learning	Somewhat Facilitates My Learning	Uncertain	Somewhat Inhibits My Learning	Moderately Inhibits My Learning	Greatly Inhibits My Learning
Is easy for me to approach during the clinical experience							
Is a kind person							
Shows empathy towards nursing students in the clinical experience							
Shows compassion towards patients and their families							
Is organized							
Is able to adapt to unexpected events which may occur during the clinical experience							
Appears calm during the clinical experience							
Is an honest person							
Has a sense of humor							

PERSONAL CHARACTERISTICS The nursing instructor who	Greatly Facilitates My Learning	Moderately Facilitates My Learning	Somewhat Facilitates My Learning	Uncertain	Somewhat Inhibits My Learning	Moderately Inhibits My Learning	Greatly Inhibits My Learning
Appears to enjoy nursing							
Shares her personal nursing experiences with nursing students							
Appears to enjoy teaching							
Is friendly during the clinical experience							
Is patient with nursing students during the clinical experience							

Please answer the items below. They are for statistical purposes only.

AGE: _____ years   G.P.A. (cumulative): _____

SEX: _____ Female   USUAL THEORY NURSING GRADE: _____ A

_____ Male   _____ B

                                                _____ C

              USUAL CLINICAL NURSING GRADE: _____ A

RACE: _____ American Indian/Native American   _____ B

_____ Asian American/Oriental   _____ C

_____ Black/Afro-American   _____ Pass/
                                                       Satisfactory
_____ Hispanic Black

_____ Hispanic White

_____ White/Caucasian   YEAR IN NURSING SCHOOL: At this time
                          I am a
                                   _____ Junior Nursing Student

                                   _____ Senior Nursing Student

RELIGIOUS PREFERENCE: _____ Catholic

                       _____ Protestant

                       _____ Jewish

                       _____ Other

                       _____ None

PRIOR COLLEGE MAJOR: Did you have another major in college before
                      you entered your nursing program?

                      _____ Yes _____

                      _____ No   │

                                              │ If "Yes," what was
                                              │ your major?

                                              _____

APPENDIX B

6146 West Melrose Street
Chicago, Illinois 60634
March 12, 1986

For my doctoral dissertation, (Ed.D.), I am conducting a survey
of baccalaureate nursing students to determine their perceptions
of the teaching behaviors and personal characteristics of nursing
instructors which facilitate or inhibit their learning in the
clinical setting. The proposal has received full approval from
the I.R.B. at Loyola. It will pose no risk to either the student
or the instructor as all data will be "pooled" and thus individual
confidentiality of responses will be protected. Both student and
instructor will sign a consent form. Your school will not be
identified.

Would it be possible for me to collect data at your school? I am
interested in collecting data on both senior and junior generic
nursing students because I wish to compare the two groups. I can
guarantee you that I would need only 5 minutes at the end of class
time to explain, distribute, and administer this tool. I piloted
a much longer version of this tool, and the average time for com-
pletion was then 6 minutes. The present tool contains just 32
short statements. All the students need to do is to place an "x"
in the box of their choice on a Likert-type scale. It's kind of
fun for the students to do, too!

I would very much like to collect my data during April and May,
1986, before the present seniors graduate. I would collect the
data on the junior students during this same time framework. I
will be in touch with you by telephone during the week of March
17-21 or March 24-28 to see if I could set up a date/dates and
time/times with you to collect data at your school. If you are
not the individual who handles the requests of this nature, would
you kindly refer this to the proper person. Please also feel
free to ask me any questions at the time I call you. At the end
of this project, I will be happy to share the results with you.

Thank you very much for your cooperation in this matter.

Sincerely,

Patricia Ruttkay, R.N., M.S.N.
Doctoral Candidate
Loyola University
School of Education

APPROVAL SHEET

The dissertation submitted by Patricia Ruttkay
has been read and approved by the following Committee:

Dr. Martha Ellen Wynne, Director
Associate Professor, Counseling and Educational Psychology,
Loyola

Dr. Steven I. Miller
Professor, Foundations, Loyola

Dr. Ronald Morgan
Associate Professor, Chairperson of Foundations, Loyola

Dr. Carol G. Harding
Associate Professor, Counseling and Educational Psychology,
Loyola

The final copies have been examined by the director of the
dissertation and the signature which appears below verifies
the fact that any necessary changes have been incorporated
and that the dissertation is now given final approval by
the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment
of the requirements for the degree of Doctor of Education.

May 3, 1987

Date

Martha Ellen Wynne

Director's Signature