

THE UNIVERSITY OF CALGARY

THE RELATIONSHIP BETWEEN EDUCATIONAL
BELIEFS AND ACHIEVEMENT
IN NURSING EDUCATION

by

CHRISTINE ANN DROBOT

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Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements for
the Degree of

MASTER OF ARTS

DEPARTMENT OF EDUCATIONAL CURRICULUM AND INSTRUCTION

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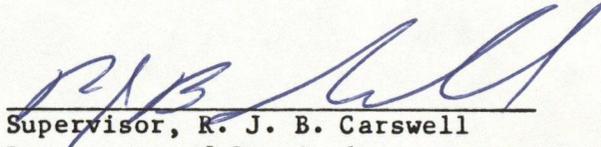
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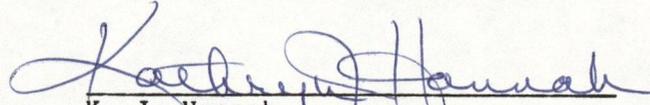
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "Relationship between Educational Beliefs and Achievement in Nursing Education" submitted by Christine Ann Drobot in partial fulfillment of the requirements for the degree of Master of Arts.



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ABSTRACT

This correlational study investigated educational beliefs of first and second year diploma nursing students and how they relate to academic and clinical performance. The study also examined teacher-student belief congruence relative to students' persistence or withdrawal decisions.

The instrument was comprised of a demographic questionnaire and a Likert belief opinionnaire, the Philosophy Preference Assessment (PPA). The PPA consisted of forty (40) belief statements, eight relating to each of the educational philosophies of perennialism, idealism, realism, experimentalism and existentialism.

In relation to demographic characteristics, the majority of students were nontraditional (24 years and older) with backgrounds rich in educational and work experience. An analysis of variance (ANOVA) was conducted to determine differences in beliefs among first and second year nursing students and nursing faculty. There was only one significant difference identified. Second year students scored higher than first year students in existentialism.

In examining the relationship between students' educational beliefs and academic performance, Pearson product moment correlations were performed between beliefs and academic performance in each of seven nursing theory courses, as well as for the registered nurse examinations. The results indicated that there was only one significant correlation between beliefs and academic

performance in first year, however there were twelve significant correlations between beliefs and academic performance in second year: two positive correlations in perennialism; one negative and one positive correlation in idealism; three positive correlations in realism; two negative correlations in experimentalism and three negative correlations in existentialism. In the second year of nursing, academic grades appear to correlate positively to perennialism and realism and negatively to experimentalism and existentialism.

In examining the relationship between educational beliefs and clinical performance, Pearson product moment correlations were computed for all seven clinical nursing courses. Results indicated that there were three positive correlations between beliefs and clinical performance out of a possible fifteen for first year students: one in realism, idealism and existentialism. In second year there were eleven significant correlations between beliefs and clinical performance: one positive correlation in perennialism; three positive correlations in idealism; four positive correlations in experimentalism, and three positive correlations in existentialism.

Finally an analysis of variance (ANOVA) was conducted to examine the differences in beliefs among faculty, persisters, and withdrawals. The results indicated that there were two significant differences between faculty and withdrawals with withdrawals scoring higher on the philosophies of perennialism and idealism.

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CHAPTER 1

INTRODUCTION

This correlational study is an exploratory investigation into the relationship between educational beliefs of nursing students and their academic and clinical performance. The study also examines belief congruence between teachers and those students who persist in nursing, as well as students who withdraw from nursing program.

Purposes of the Study

This study is designed to answer the following questions:

1. What are the demographic characteristics of nursing students in this diploma nursing program?
2. Is there a significant difference in educational beliefs among first year nursing students, second year nursing students and faculty?
3. Is there a significant relationship between educational beliefs and academic performance in a diploma nursing program?
4. Is there a significant relationship between educational beliefs and clinical performance in a diploma nursing program?

5. Is there a significant difference in educational beliefs when comparing faculty to students who persist in nursing and to students who withdraw from the program?

Background of the Study

This study had its inception in a graduate education course in curriculum. As a part of this course, attention was directed at beliefs and their implications for the teaching-learning process. Of particular interest was the presumed effect that different teacher belief systems would have upon teaching methods, teaching styles and learning climates. Initial discussions with colleagues stimulated speculation regarding the way in which belief systems affected the teaching of the academic and clinical components of nursing.

A number of faculty at this college expressed an interest in involving nursing students in the assessment of educational beliefs to permit comparisons between the belief structures of nursing students and those of the faculty. Not only would this provide an opportunity for students to think about their own beliefs and how they relate to the teaching-learning process, but it could also provide faculty with information relative to this important dimension.

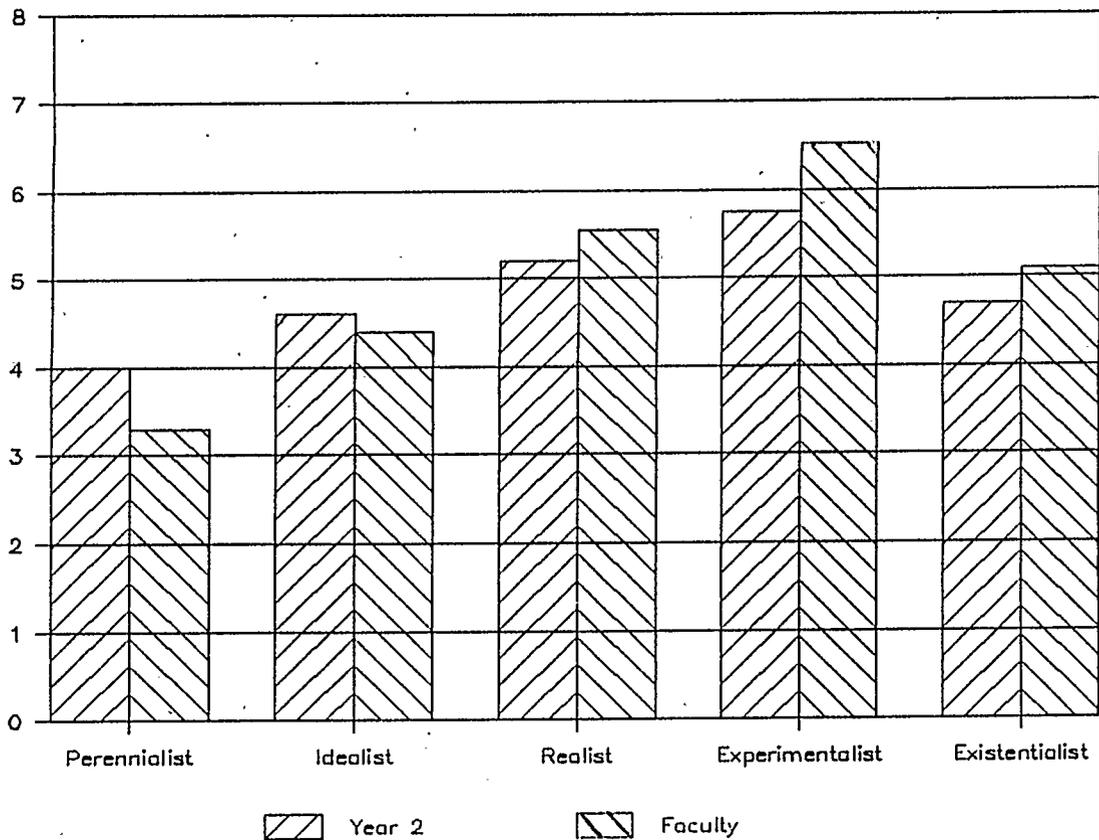
In pursuing this display of interest, a request was presented to faculty and second year nursing students to participate in clarifying their beliefs and associated values by completing the

Philosophy Preference Assessment (Wiles and Bondi, 1979), an instrument comprised of forty belief statements pertaining to five different philosophies. Both faculty (N=10) and students (N=63) completed the Philosophy Preference Assessment, and the results, in the form of philosophic belief profiles, are presented in Figure 1.

The means pertaining to the five philosophies of both students and faculty appeared similar. The aggregate profiles of students

Figure 1

Pilot Study
Philosophic Profile Comparison
Faculty and Second Year Students



and faculty indicated a preference for the philosophy of experimentalism, and second, for realism.

Following completion of the nursing program, the students wrote the national nursing examinations and achieved high standard scores (M-589) when compared to provincial (M-555) and national means (M-519). These outcomes led to speculation as to whether patterns of philosophic profiles and their congruency were related to high academic achievement on the national exams.

In the course of such speculation, the writer framed a number of questions related to philosophic beliefs and their relationship to the teaching-learning processes: What is the profile with regard to educational beliefs of the entering nursing student? How do faculty and nursing student profiles compare? Is there a relationship between students' philosophic profiles and their academic and clinical (hospital) performance in the nursing program? How do faculty profiles compare with students who withdraw or fail? These questions led to a decision to explore further the dimension of beliefs and possible relationships to teaching and learning variables in a systematic and thorough investigation.

Beliefs and Nursing

Nursing is the product of the values and beliefs associated with it as an institution (Cohen, 1981). With its origin in the religious and military orders, nursing has been significantly influenced by the values of these two social institutions. According to Rokeach (1970), a vital responsibility of each social

institution is to promote and perpetuate its own beliefs and values in its norms and roles. He states that different social institutions specialize in the enhancement of different beliefs and values. Allport, Vernon and Lindzey (1970) in their study of different occupational groups reveal that distinctive value profiles exist with each group. Nursing has three primary values-aesthetic, social and religious (Anantharaman, 1980; Garvin and Boyle, 1985). Those individuals who have internalized the beliefs and values are responsible for socializing others to perpetuate that which is deemed important to the institution. Nursing education, as a product of nursing's value system, reflects the prevailing beliefs in nursing and seeks to perpetuate the internalization of these values by the neophyte student (Blomquist, Cruise and Cruise, 1980). In a similar fashion, those individuals who make a choice regarding a career will use as a basis for their decision the values they possess, aspire to and associate with the profession (O'Neill, 1975). Thus, students entering nursing consider their own individual beliefs, values and aspirations in relation to the prevailing beliefs and values associated with nursing. In the nursing program, students encounter the roles and expectations of a nursing student and have an opportunity to decide if these roles and expectations reflect the beliefs and values that are important to them as nursing students.

Nursing students are seeking entry into nursing because they are interested in "independent decision-making functions" and

practice based on "nursing science" (Feldman, 1981). This is reflective of students who are interested in problem solving and intent upon understanding the underlying rationale of nursing actions. Nursing programs emphasize the importance of adapting the scientific process and using it as a basis for effective problem resolution. This process is commonly referred to as the nursing process (Bloch, 1974). It provides the fundamental basis for decision-making, particularly in the clinical (hospital) area, and a student's performance in the hospital experience is related to that individual's effectiveness as a problem solver.

Students become socialized into the role of nursing through acquisition of knowledge, development of skills and integration of norms and expectations into their own behavior (Jacox, 1973). The role socialization process is a very important aspect of nursing education and takes place in formal and informal interactions with faculty, students and staff (Watson, 1986). Crocker and Brodie (1974) state that a valid measure of socialization is the degree to which the student subscribes to the values, norms and expectations of the teacher.

Successful integration in nursing takes place in two major areas: the academic dimension and the clinical (hospital) dimension. It is in the clinical area that students must integrate their knowledge, affective and psychomotor skills, while still ensuring the safety of the client (Windsor, 1987). Cognitive factors (high school grades and aptitude) appear most indicative of

success in either of these dimensions; however, because of the prominent affective component and the high attrition rate in nursing, there is a need to examine noncognitive factors that may more accurately reflect the complex nature of nursing (Grassi-Russo and Morris, 1981).

Theoretical Assumptions

Educational beliefs and how they translate into learning endeavours are examined in this chapter. First, the nature of beliefs and values is explored particularly as it relates to decisions, behavior and actions. The notion of congruence of beliefs and a person's adaptive responses if there is dissonance in the belief or value structure is considered. Finally, how these beliefs are organized into a philosophic framework is discussed along with an examination of the basic tenets of five educational philosophies. These theoretical concepts provide the basis for consideration of how educational beliefs relate to academic and clinical performance in nursing and how the notion of belief congruence between teacher and student relates to students' persistence or withdrawal.

Beliefs

Beliefs are a critical dimension in one's functioning. They assist individuals in structuring their world and living in it. Rokeach views beliefs as "inferences made by an observer about underlying states of expectancy" (Rokeach, 1968, p.2). By enabling the human actor to organize and contend with the vast number of

stimuli, these beliefs provide the basis for understanding and appreciating the universe (Rokeach, 1970). Generally, beliefs exist on a central-peripheral continuum (Rokeach, 1968). The centrality of a belief, or its relative importance to the person, may be defined in terms of its connectedness with other beliefs. Rokeach (1970) observed:

the more a given belief is functionally connected or in combination with other beliefs, the more implications and consequences it has for other beliefs, and therefore, the more central is that belief (p. 5).

Because central or intensely held beliefs are interconnected with many other beliefs, the more central a belief "the more it will resist change, and the more any such change will produce differential effects on the rest of one's belief system" (Rokeach, 1970, p. 5).

Each belief can be further viewed as possessing three components: cognitive, affective and behavioral (Rokeach, 1970). The cognitive component is the content or substantive aspect of the belief which involves ascertaining truth-falseness, goodness-badness, and desirability-undesirability of the belief. The affective component is intertwined with the emotional intensities associated with beliefs as well as the arousal capability of the belief. Rokeach (1970) states that the behavioral component of beliefs is important because:

the belief, being a response predisposition of varying threshold, must lead to some action when it is suitably activated. The kind of action it leads to is dictated strictly by the content of the belief. Even a belief that merely describes is a predisposition to action under appropriate conditions (p. 114).

This behavioral component illustrates the point that a given belief creates a response disposition that provides a guide for action. Thus, Rokeach refers to beliefs as an indication of the underlying expectancies within the individual that influence the behavior or actions of that person. In this way, Rokeach's concepts provide the vital linkage between beliefs, the underlying expectancies they create and the actions that ensue.

Rokeach (1970) also views beliefs in three ways: descriptive, prescriptive (instrumental) and evaluative (moral). Descriptive beliefs validate the object of a belief as true or false, correct or incorrect. An example of a descriptive belief is "Nursing is a science and an art". Prescriptive beliefs "advocate a certain course of action or a certain state of existence as desirable or undesirable" (Rokeach, 1970, p. 113). Prescriptive beliefs are more closely aligned with values because they provide criteria for behavior and create a sense of expectancy that guides and directs action. For example, "Helping others maintain and regain their health is a worthwhile endeavour" could be an example of a prescriptive belief. Finally, evaluative or moral beliefs judge a particular object as good or bad or a course of action as right or

wrong. These beliefs tend to be more central in character with more affective associations. An example of moral beliefs could be "Nurses should be guided by ethical standards when caring for others". In this manner, beliefs provide the framework to describe, prescribe or judge.

The relationship between values and beliefs also requires some clarification. Rokeach identifies values as prescriptive beliefs that center around the understanding:

that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence. Once a value is internalized it becomes, consciously or unconsciously, a standard or criterion for guiding action....(Rokeach, 1968, p. 160)

When certain states and ends are deemed preferable, they become crucial determinants in the choices people make and the actions they take. Kilmann (1981) contends that values can provide guides to what needs, wants, and desires people should have; what interests, preferences and goals are seen as desirable or undesirable, as well as what individual dispositions or traits one ought to have along with what beliefs and attitudes an individual should express. In this way, knowledge of values should explain and predict human behavior, as values underlie the differences in beliefs, attitudes, and behavior. As Bem (1970) has noted, a value is a primitive preference for certain end states or modes of conduct.

Values are formulated relative to preferable means as well as ends. Rokeach (1973) identifies values that are concerned with preferential means or modes of conduct as instrumental values. For example, an instrumental value held by a student could be: I prefer to work independently rather than as a member of a group when completing assignments. Values that are primarily concerned with preferable goals or "end states of existence" are referred to as terminal values. A student's desire to contribute to the well-being of others could be viewed as a terminal value, and the subsequent decision to pursue nursing as a way to realize this terminal value.

Values provide individuals with standards for behavior, as well as grounds for establishing important life goals (Kilmann, 1981). When confronted with alternative courses of action, values determine the preferential mode of action to be adopted. Values play a significant part in arriving at decisions and in the making of judgments. Such values provide the basis for an individual's aspirations and expectations becoming powerful intervening factors in pursuing and successfully achieving preferred goals (Tinto, 1975).

Once a person subscribes to a particular hierarchy of values, then time, energy and resources are needed to support the values that have been chosen. For example, if an individual holds as a value, high self expectations related to college performance, then that person will be motivated to attain high academic grades. This

hierarchy of values is comprised of instrumental as well as terminal ones.

Similarly, beliefs exist in finely interconnected, organized networks known as the 'belief-disbelief system'. Rokeach (1960) states that "the belief system is conceived to represent all the beliefs, sets, expectancies, or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world he lives in" (Rokeach, 1960, p. 33). On the other hand, the disbelief system is comprised of that which an individual rejects as false. These beliefs and disbeliefs are organized within the individual in a psycho-logic fashion; there are interrelationships among the beliefs but the system is not a logical, rational one. This allows one to defend the belief system by rejecting information that jeopardizes a "held belief", while clinging to other seemingly contradictory beliefs (Bem, 1970).

Another dimension involves the manner in which congruence of beliefs is seen to be related to student learning and achievement. Getzels (1963) contends that in a social setting, such as a post-secondary institution, an individual has certain roles and expectations to fulfill related to the meeting of the institutional goals. This person also brings into the setting a unique personality and individual need dispositions. It is incumbent on the individual to attain an acceptable match between role expectations and personal need dispositions. Getzels reinforces that a person's behavior is a consequence of fulfilling the role

expectations in a manner that is consistent with individual needs. Incongruence can result in the generation of conflicts, which would deter from the integration of role expectations and the meeting of individual needs. This results in an uncomfortable or dissonant state which serves to divert energy away from the learning process. In this study, attention is directed at the degree of congruence or incongruence between teacher and student beliefs and values and how this factor can be seen to impinge in a broad way upon ultimate student achievement.

The beliefs and values held are not always organized to ensure consistencies. Rokeach (1970) suggests that inconsistencies in a belief-value system create dissonance; thus requiring people to reorganize their thinking in order to resolve the uncomfortable feelings. In his study of belief congruence, Rokeach asserts that individuals tend to value an "other" belief or system of beliefs in proportion to the degree of congruence it has to their own beliefs. This principle further suggests that individuals may value others in proportion to the degree of belief congruency between them (Rokeach, 1968). These differences in beliefs and expectations can have a significant impact on classroom interactions. Festinger (1957) states that the existence of dissonance creates a psychologically uncomfortable state and will motivate the person to try to reduce the dissonance and achieve more consonance. He also notes that "the strength of the pressure to reduce the dissonance is a function of the magnitude of the dissonance" (p. 3). If the dissonant state

results in too much discomfort, the individual may choose to reject the new belief or value, thus restoring the equilibrium in the existing system.

Considering Rokeach's concept of centrality of beliefs, those beliefs that have more interconnections and are of greater significance in the belief structure will create the most dissonance when challenged by another. For example, an individual who has the belief that the teacher should disseminate information based on universal truths and be the supreme authority in the classroom will experience dissonance when instructed by a teacher who believes that individuals are responsible for designing and actively participating in their own learning. In a similar manner, central values that provide the criteria for life decisions will create dissonance when conflicting views are encountered. If an individual has selected nursing because of the desire to help people, and this value of helping others is very intense, then considerable dissonance may be experienced when the student's performance does not match the expectations in the program. In other words, the deeply felt need to help others is frustrated by the student's inability to meet the required academic or clinical behaviors specified in the program.

Beliefs and values provide the tools for decision-making and action. Each belief and value is organized in a psychologic fashion to provide the individual perspective unique to that person, and together they comprise an individual's philosophy and a

conceptual framework through which a person views and makes sense of the world.

Educational Philosophy

Beliefs about education and the teaching and learning processes provide us with a framework for considering the following important questions: What are the purposes of schooling? What should be taught? What are the roles of the teacher and learner? The answers furnished to these questions will be guided by the underlying educational philosophy that the individual holds (Eisner and Vallence, 1974). For individuals, these beliefs and values provide direction to the character of conceptions regarding best learning environments and ideal forms of teacher-student relationships (Wiles and Bondi, 1979). Youngs (1979) contends that educational philosophy should be primarily concerned with ascertaining defensible positions on issues that are important and meaningful in the teaching-learning processes; therefore, it should serve education by illuminating one's understanding of it. In addition, it should provide the basis and justification for the way things are done.

Researchers inquiring into teaching-learning processes have access to five philosophies of education that have traditionally organized thinking in this area: perennialism, idealism, realism, experimentalism and existentialism. These philosophies were used by Wiles and Bondi (1979) in developing the Philosophy Preference Assessment, from which the philosophic profile is derived. Each

educational philosophy seeks to define its purposes in its own way, thus creating a unique view and approach to fundamental educational issues (Power, 1982). Educators holding varying philosophies would create very different environments for learning, use varying methods of teaching and regard the role of the learner in different ways (Wiles and Bondi, 1979). The instrument developed by Wiles and Bondi (1979) for curriculum investigations is comprised of forty belief statements that articulate the basic tenets of each of the five philosophies (Appendix A).

Perennialism is the most conservative or traditional of the five philosophies. Brameld (1951) states that a central belief in this philosophy involves the constancy of humankind and nature (Morris and Pai, 1976). According to McLaren (1983), perennialists view the world as a world of reason presided over by God. Truth can be determined by reason and revelation and goodness through rational thinking.

In education, perennialists regard the constancy of human nature as an indication of what the nature of educational endeavours should be. They believe that the basis of education is "universal truth" and that change is superficial and incidental (Wiles and Bondi, 1979). The overall role of education is viewed as a preparation for life that calls for the "inculcation" of those truths that are regarded as universal. Perennialists treasure values such as time-tested content based on eternal principles, orderly sequence, and guided discipline which they consider

stabilizers in learning (Brameld, 1951). Power (1982) states that according to perennialists, knowledge is attained through study and divine revelation; it is the purpose of the school to transmit eternal truths and reveal God's will. The teacher is envisioned as a person who has access to the eternal truths and is concerned with their transmission, while the student is seen as the passive recipient of these truths (Wiles and Bondi, 1979). Because the teacher is regarded as a strong authority figure in instructional activities, a highly disciplined and structured environment is regarded as essential for learning (Wiles and Bondi, 1979). This traditional educational philosophy had a considerable impact upon the development of later philosophies.

Idealism, as a philosophy, views the nature of the individual in a two fold manner: as a mind endowed with reasoning ability and as a will that is capable of choosing (Power, 1982). Central in the idealist philosophy is the belief that the physical world is an illusion, that reality exists within the mind, and that life's purpose is to discover its inner meaning (Brameld, 1951). Truth, in idealism, can be found by examining the consistency of ideas embodied in the wisdom of the ages (Morris and Pai, 1976). Preservation of truth is envisioned as critical, and change is considered an intrusion in the orderly process of living (Wiles and Bondi, 1979).

Idealists view the attainment of the wisdom of the ages and the expansion of awareness as the mandate of education. They

believe that schools exist to sharpen the intellectual and rational processes; therefore, subjects for the development of the mind and thinking processes are the fundamental focus in education (Wiles and Bondi, 1979). The primary concern of idealism is to provide access to the greatest ideas and objects that man has created, as well as to cultivate the learner's intellect by providing opportunities to acquire the most powerful products of man's intelligence (Eisner and Vallance, 1974). Brameld (1951) indicates that values in idealism are emphasized through the study of heroes and exemplars, with modelling being an important component of learning. The teacher is regarded as the "ideal model" whose primary role is to disseminate the wisdom of the ages, while the student's role is to receive this wisdom and memorize it. Any method that disseminates knowledge such as lecture and discussion is acceptable (Morris and Pai, 1976). Power (1982) states "when students leave school they should be cultivated human beings ready to transcend the realm of nature to engage in the world of thought...." (p. 85).

Realism emerged as a "refutation of idealism". Power (1982) explains, that in realism, there is a move from the illusory nature of the "idea" to the empirical and scientific realms. Morris and Pai (1976) state that realists view the existence of individuals in a "world of orderly things" and that truth is found in the laws of nature and the physical world. Realists envision the world as an intricate mechanism endowed with design, order and harmonious movement.

The primary purpose of education, according to realists, is to understand and appreciate the order and harmony of the universe. Brameld (1951) states that realists prefer a curriculum dominated by subjects, such as mathematics and science, which present content in an ordered and systematic way. Schools should reflect societal values. Considerations related to life adjustment and social responsibility are accentuated, and rules of conduct are emphasized (Power, 1982). Teachers are considered "masters of the universe" who strive to impart their understanding of its harmony and order to the learner (Morris and Pai, 1976). Teaching for the mastery of information is emphasized and, although students are encouraged to demonstrate and manipulate, they are primarily passive participants in the learning process (Wiles and Bondi, 1979).

Experimentalism emerged as a philosophy because of the belief that existent philosophies were intellectually sterile and that they ignored the problems of the real world (Power, 1982). Dewey (1920) wanted to move philosophy into practical everyday settings for he believed that it should be analytical and constructive based on rational, primary principles. Dewey felt that no other philosophy speaks more directly to education than this one, and that experimentalism is primarily a philosophy of education, or at least, education is its best testing arena (Dewey, 1984).

Experimentalism is a method of inquiry and a means of integrating knowledge from many fields of human endeavour (Power, 1982). Morris and Pai (1976) indicate that in the experimentalist's

view, reality lies in the experiential aspects of living, and it is through this experiencing that reality, truth, and goodness can be determined. Societal needs are stressed over individual needs, and the overall goals of education are dealt with in terms of the total experience. Social reform coupled with social responsibility to the future of society are primary goals (Eisner and Vallance, 1974). Truth is what "is" and what presently functions; goodness is determined by the public conscience (Brameld, 1951). Experimentalists believe in "a world of process" where "truth seeking" through inquiry and problem solving is emphasized (Morris, 1961). For experimentalists, the world is an ever-changing place. Therefore, they openly accept change and continually strive to discover new ways to expand and improve the social order (Wiles and Bondi, 1979).

The primary goal of schooling, according to experimentalists, is to develop reflective inquiry in human beings (Morris and Pai, 1976). Proponents demand that schools recognize and respond to their primary role as a bridge between what is and what might be (Eisner and Vallance, 1974). Dewey (1984) states that experimentalists favor schools which delve into the social subjects and explore life experiences. In experimentalism, students and teachers are involved in discovering and experiencing the world in which they live. Exploration of values is encouraged through group inquiry into social issues with consideration of group consequences (Wiles and Bondi, 1979). The student is an active contributor and

participant in the learning process, and the teacher is the consultant who aids in these endeavours (Brameld, 1951). Students are encouraged to become involved in evaluation as well as in curriculum deliberations (Wiles and Bondi, 1979).

Existentialism as a philosophy centers around the key notions of freedom coupled with responsibility (Power, 1982). The ultimate aim of human striving is to make sense of the world (Brameld, 1951). Morris and Pai (1976) assert that existentialists search for the meaning of "existence" by seeking answers to the profound questions regarding the nature and cosmic purpose of humankind. Brameld (1951) indicates that, in existentialism, the world is seen as one of personal subjectivity where goodness, truth and reality are all individually defined. Change is readily accepted as a natural and necessary phenomenon. Reality can be found in a "world of existing", wherein truth is personally selected and goodness is a matter of freedom and choice (Morris, 1961). Existentialists believe that each being has the capacity and freedom to guide destiny and overcome the "exigencies" of nature. Ultimately, "humanity's greatest friend is freedom; its greatest enemy is determinism" (Power, 1982, p 142).

Existentialists reject the idea of a highly structured school environment, for they feel that schools should provide personally satisfying "consummatory" experiences wherein the learner actualizes individual potential (Eisner and Vallance, 1974). Existentialists discredit "spectator knowledge" and support the view

that schools are only tools for the "realization of self". Subject matter is selected to ensure a liberal education based on a foundation of human freedom (Morris and Pai, 1976). Power (1982) emphasizes the point that, although people are free to choose their own moral standards or values to guide them through life, such freedom of choice must go hand in hand with responsibility for these choices. Freedom has rules; therefore, social education would emphasize respect for the freedom of all (Brameld, 1951). Teacher-student relationships would center on the teacher assisting students in their own "learning journeys" (Wiles and Bondi, 1979). Therefore, any method that actively engages the learner in decision-making and action is acceptable, as long as the primary task is to assist students in personal development and in achieving "happiness".

Summary

Power (1982) states that individual determination of a philosophy involves the personalizing of knowledge and adding the "froth and foam" of life experiences. Wiles and Bondi (1979) emphasize that it is through scrutiny of beliefs on relevant issues that individuals derive philosophic stances both personally relevant and meaningful. This derivation of a philosophy may involve consideration of different beliefs including the recognition that a blending of truths may be more personally relevant. Individuals tend to prefer one philosophic stance with a blending of ideas from alternate philosophies, better known as an "eclectic philosophic

stance" (Wiles and Bondi, 1979). Educational philosophy provides the organizing framework for the beliefs an individual holds regarding educational endeavours.

If a person has an integrated belief system and has developed expectations about how education should be managed, this could affect that student's adjustment to and integration into post secondary learning. Consider if the predominant philosophy of the nursing program is experimentalist, and this is further reinforced by a faculty experimentalist profile, then student participation in the learning process will be emphasized, and there will be an expectation regarding students' use of the problem solving process to derive workable solutions. On the other hand, if students are idealist in orientation with the expectation that their roles are to assimilate the wisdom of the ages and have the solutions provided them in explicit terms, then it would be difficult for them to fulfill the expectations, particularly in the clinical area where each situation is individual. In this way, dissonance in beliefs could influence how that student participates in clinical experience as well as her final clinical grade. Likewise, if examinations involve skills of application, analysis and synthesis, those students who have memorized the facts, as with a perennialist or idealist philosophy, may find it difficult to use their learning when new situations are posed. Consequently, this study is designed to investigate whether congruence or dissonance in belief systems will influence students' achievement.

Delimitations

This investigation is an exploratory correlational study to assist in the decision-making processes involved in curriculum and instructional design. It is a study that focuses on a particular nursing program and the relationship between belief systems and student performance. It ignores the other rich and multifaceted factors that interplay in the day to day interactions of faculty and students. Consequently, findings will be only suggestive and further explorations related to beliefs will be necessary to clarify their influence on performance.

The study does not enter into an examination of the nature and quality of actual interactions in the instructional process. However, an attempt is made to relate the nature of beliefs and the degree of congruence between teacher-student beliefs to learning outcomes. In addition, this study does not focus on the nature of the particular curriculum that instructors have developed and follow in the course of instruction in the nursing program. Certainly, another study examining the way in which beliefs relate to curriculum development and implementation would be a worthwhile endeavour.

Finally, it is not claimed that this nursing program is a representation of diploma nursing programs; consequently to generalize the results, the reader would have to carefully consider the demographic profile of these students and how it relates to the demographics in other programs.

Definition of Terms

The terms used in this study have been defined as follows:

Belief - is an implicit inference that can be concluded about underlying expectancy sets or states. (Rokeach, 1968; Rokeach, 1970).

Value - is a central belief that represents the ideal related to how an individual should or should not behave, or identifies a preferred end state of existence. (Rokeach, 1968; Rokeach, 1970)

Academic performance - is the student's grade achieved in each of the eight nursing theory courses of the diploma nursing program.

Clinical performance - is the student's grade achieved in each of the seven clinical or hospital practicum in the diploma nursing program.

Philosophic Profile - is the derivation of an educational belief configuration from the Philosophy Preference Assessment considering the philosophic tenets of perennialism, idealism, realism, experimentalism and existentialism (Wiles and Bondi, 1979).

Significance of the Study

Beliefs and their underlying values are critical elements in assisting curriculum and program planners to make decisions related to instructional goals and in the realization of those goals. The study of faculty educational beliefs will invariably guide curriculum planning decisions as well as suggest appropriate teaching-learning strategies. An awareness of one's educational philosophy may help the instructor better achieve a "fit" between program goals and instructional procedures selected to achieve the goals. This study provided the opportunity for instructors to

examine their own philosophic profiles so as to gain insights into how these beliefs influence student performance within the context of practical settings.

This study could also provide additional information related to persistence or withdrawal decisions. The attrition rate in this college diploma nursing program ranges between 30% - 35%. This situation represents a major financial loss as well as a loss of vital human resources. Any light that could be shed to counteract this tendency is important to investigate. An understanding of students' beliefs could provide additional information to complement the cognitive data presently being used in selection procedures.

Research into congruence of beliefs could assist students and faculty alike to clarify their beliefs and recognize the potential for possible conflict generation. Such clarification would permit more energy to be invested into actual learning efforts rather than divert energy into conflict resolution. Finally, information gleaned from the study could also be used to counsel students in areas of weakness. For example, if the predominant curriculum and faculty thrust is in the direction of experimentalism, with its focus on effective problem-solving strategies, then a student found to be an ineffective problem solver would require assistance. Increased awareness by both students and faculty of their educational beliefs would not only improve prospects for better social and academic integration, but would also heighten the likelihood of successful achievement.

Organization of the Thesis

The first chapter identifies the purposes of the study and the evolution of the investigation. Considerations relating to the theoretical assumptions that underlie the study are made. The delimitations of the study are reviewed; grounds for significance are offered; definitions of relevant terms are presented.

Chapter two, the literature review, highlights beliefs and values and how they relate to academic and clinical performance in post secondary institutions and nursing. The review examines the role socialization process in nursing in relation to belief systems and interactions that ensue between faculty and students. Finally, a discussion of the congruence of beliefs between teacher and student is considered.

Chapter three outlines the problems, subjects, procedures and instruments, adaptation of the instrument (The Philosophy Preference Assessment) and organization of quantitative data. It also describes the treatment of the data according to individual hypotheses.

Chapter four deals with the findings and their interpretations. The results are presented according to each of the questions posed in the study.

Chapter five completes the study by consideration of the summary and results. Discussion of the significance of the results are made along with implications for practice and research.

CHAPTER 2

REVIEW OF RELATED LITERATURE

This review of the literature examines beliefs and values of nursing students in post secondary institutions with some reference to the general student population, and specifically, seeks to identify the relationship of those beliefs to academic and clinical performance. Although there have been several studies relative to the "role socialization" process in nursing and the associated values of nursing students and nurses, there is a paucity of studies relating beliefs and values to academic and clinical performance. Because of this absence of studies, this review explores those areas in nursing education that relate to beliefs and values as well as those factors associated with academic and clinical performance in order to deduce implications concerning the relationship between belief/value positions and achievement.

First, this review examines prevailing beliefs and values in nursing and how they have changed over the previous two decades. This provides the background for examination of the philosophic and value positions extant in nursing. The review also considers beliefs and values of nursing students and the "role socialization" that occurs in nursing education in an effort to understand how socialization influences beliefs and values and, in turn, how this is reflected in performance. Those factors that

influence academic and clinical performance are presented to examine how beliefs may be related to students' achievement in nursing. Finally, studies examining congruency of student-faculty beliefs are included to further clarify how differing beliefs and values influence performance.

Beliefs, Values and Nursing

The values, norms, roles and expectations in nursing have been closely aligned with the sex-role socialization processes (Garvin and Boyle, 1985). Changes in the role of women in society have had an impact upon those traits and values of females entering nursing. In the late 1960's, studies indicated that nursing students and nurses consistently showed "high deference" (dependency, passivity, succorance) needs and "low autonomy" (dominance) needs in comparison with female control groups (Bailey and Claus, 1969). Wilson, (1971) in a review of the literature, found that nursing students and nurses considered themselves to be sensitive, concerned about people, subordinate and personally oriented to others. This review also indicated that, as women, nurses in our culture were noted for their "intuition versus intellect, for their nurturance versus productivity, for their dependency versus independence" (p. 216). Leininger (1974) stated that the prevailing values of "passivity, dependency, action-oriented practicality, and anti-intellectualism" characterized nurses. In studies of nursing

students conducted in the 1960s they were reported to be more submissive, to be "self abasing" and to have lower needs for dominance and achievement than other college women (Bailey and Claus, 1969).

In reviewing the characteristics and values prevalent in nursing two decades ago, it would seem that dependency, passivity, low autonomy, and subordination would be more consistent with the more traditional philosophic approaches of perennialism and idealism, although no researcher explicitly stated it this way. The anti-intellectualism would also suggest that knowledge was viewed as a given, another characteristic of the more traditional philosophies.

Compared to the studies above, Ahad (1981) and Feldman (1981) indicate that there are certain characteristics of nurses in the 1980's that are different from the 1960's. Aldag and Rose (1983) found that present nursing students are older, with backgrounds rich in work experience and education, as compared to nursing students in the past. Although entering nursing students are still predominantly female, more males are now seeking entry into nursing programs than were in the previous decades (Flanagan, 1982). Kaiser (1975) in her examination of characteristics of associate degree nursing students (college diploma students) found that sixty-nine percent of the students had academic or college preparatory secondary education, and that eighty percent had completed other educational programs before enrolling in the

nursing program. Bullough and Sparks (1975) examined the aspirations of nursing students and found that there was a high level of aspiration with associate degree students. Over half of the 770 students reported that their level of aspiration was to attain a baccalaureate degree while 21% reported that their aspiration was a masters degree.

Entering students appear to have different motivations for seeking nursing. Feldman (1981) found that current nursing students are more interested in "independent decision-making" functions and practice based on "nursing science". In a study investigating motives of beginning nursing students, Morris and Grassi-Russo (1979) reported that nursing students were seeking entry into nursing because of a desire for "helping people" and an interest in "science and medicine". In a further study of nursing students in their first week of the nursing program, Grassi-Russo and Morris (1981) had students identify in one word or a short phrase, two "hopes" about their forthcoming experience as nursing students. Of eight categories, fifty-six percent (56%) of the responses were made up of the following: "helping people" (25%), "becoming a professional" (19%) and "becoming competent" (12%).

Anantharaman (1980) in a study of the primary values of nursing students found that a large percentage of students selected aesthetic, social, and religious values to be the most important ones. Garvin and Boyle (1985) examined six primary values of 309 nursing students in 1972 and compared them to those

held by 161 nursing students, in 1982, a decade later. Although the authors noted similarities related to the three preferential values--social, aesthetic and religious--there was a significant difference related to economic values. In 1972, students ranked economic values as sixth in importance but in 1982 they ranked it fourth in importance. The authors indicate that there is a shift in economic "value orientation" of nursing students that is significantly different from the previous decade. Garvin and Boyle (1985) also reinforce that nursing students still value the social aspects and have the lowest concern for political values. May and Ilardi (1970) used the Allport-Vernon-Lindzey Study of Values to examine the value changes among forty-one baccalaureate nursing students as they progressed through the nursing program. Findings indicated that there was a significant decrease in mean scores on the theoretical and religious value scale and an increase in mean scores on the aesthetic and political value scale. Blomquist, Cruise and Cruise (1980) compared the values of baccalaureate freshmen and senior students in religious and secular institutions to examine if educational environment plays a role in shaping values. Nursing students in religious institutions evidenced higher values of obedience, honesty, helpfulness, and cleanliness; secular students rated highly the values of independence, imagination, capability, freedom, self respect, ambition, and intellect. This finding suggests that values of an institution influence the outcome values of the

students, or that students with different value orientations select certain types of institutions to realize their goals.

Examination of the more recent nursing literature indicates that students are no longer as homogeneous a group as they were twenty years earlier. They are older, and come into nursing with a variety of educational and work experiences. Their seeking entry into nursing involves a matching of their beliefs and values to those they ascribe to nursing. In terms of philosophic preference it would appear that present nursing students are more experimentalist in their orientation considering their interest in "independent decision making" and practice based on "nursing science". Although the value orientation in the 1970's appears similar to that of the 1980's in terms of aesthetic, social and religious values, there is a difference with economic values being regarded more highly by students in the 1980's. This higher economic profile is consistent with studies that show greater concern of nursing students for security and economic stability (Staats, 1981). It appears that students in the 1980's view the nursing profession as a relatively stable occupational choice. The low rating accorded political values signifies, in part, the dilemma of nursing with its low political profile. It would appear that secular institutions stress more the values of independence, freedom, and intellectual development which more closely approximate the values associated with experimentalism. On the other hand, religious institutions appear to align more

closely with the more traditional philosophies of perennialism and idealism considering their preference for the values of obedience and honesty.

Flanagan (1982) reinforces the idea that studies focusing on values have implications for student selection and retention. There is a need to establish learning environments which reinforce and emphasize values associated with the human and scientific dimensions of nursing as a discipline. Garvin and Boyle (1985) state that educational programs should provide the opportunity to clarify and support those values necessary to create changes within nursing--that nursing education needs to monitor the characteristics of entering nursing students to effectively influence those qualities congruent with professional nursing. Nursing programs need to examine their own values and beliefs and communicate these to prospective students to better enable them to make informed choices based on their aspirations and goals.

Role Socialization in Nursing

Role socialization is a complex process by which a person acquires the knowledge, the skills, and the sense of professional identity that are characteristic of the career or profession. It involves exposure and internalization of the beliefs, values, and norms of the group into the individual's own behavior and conception (Jacox, 1973). Cohen (1981) argues that role socialization is a part of and a responsibility of the formal

educational process. It takes place in the academic setting as well as in the clinical area, and, also, in the informal interactions with faculty and fellow students (Watson, 1986). In this process faculty, students, and staff serve as reference groups to the nursing student in the development and acquisition of values and norms which characterize nursing. Although the classroom provides the knowledge base for the neophyte nursing student, in the clinical areas students must learn to combine the use of the cognitive, psychological, and affective skills, while maintaining the safety of the client (Windsor, 1987).

Conway (1982) discusses the importance of preprofessional socialization that revolves around the questions: What expectations do students have of the nursing profession? To what extent do students' attitudes and role concepts mirror those of the nursing faculty? These questions must be examined in depth to understand where students are coming from and how their concept of nursing matches that of the expectations in nursing. Feldman (1976) examined some of the variables that were influential in the process of socialization. He identified four stages of socialization: anticipatory socialization, accomodation, role management and outcomes. Anticipatory socialization involves preliminary examination and identification of those factors that are associated with the role, along with alignment of beliefs and values in selection of the chosen goal or career. Accomodation includes the initiation to the task and role definitions. Role

management involves students' integration of the norms and expectations into their own performance, and the outcomes are reflective of the measure of how successfully they accomplish this integration. Windsor (1987) examined the socialization process of nursing students, from the students' perspective and reported that initially students were skill-oriented and very dependent on the instructor. In the second stage, they became more comfortable with integration of skills and began to explore other aspects of the nursing profession. In the final stage, students were more confident and less dependent on the instructor, more comfortable about not knowing, and better equipped to find the answers. Crocker and Brodie (1974) in their examination of the socialization process suggest that the degree to which the student subscribes to the values and norms of the teachers can be considered a valid measure of socialization. They view the socialization process as an outcome of the educational program and consider the extent to which the neophytes' role conceptions are congruent with those of faculty or nurses already in practice as a measure of the effectiveness of the program.

As nursing students become involved in the nursing program, attitudes, beliefs and values may undergo changes. Williams, Block and Blair (1978) cite eight studies that demonstrated the impact that basic nursing programs had upon attitudes, beliefs and values. They felt that the educational process promotes the exploration of beliefs and values and that changes occur as the

student progresses through the nursing program. Dalme (1983) in her study on nursing students and their development of a "professional identity", obtained responses from nursing students on a seventy-three item Likert scale instrument. She surveyed four baccalaureate programs, involving 250 first and second year clinical students. Sources of influence in the development of nursing identity were attributed by first year students to peers, while second year students identified peers, faculty and staff as important influences. There was more "group spirit" evident with first year students and more "competitive" traits evident with second year students. Second year students also expressed more confidence in controlling the methods used in the nursing "socialization process" and felt that they were more successful in implementing changes.

In summary, "role socialization" is a complex, yet continuous process involving the acquiring of knowledge, skills and internalization of norms by the nursing student. It takes place in formal as well as informal settings, with faculty, fellow students and staff as important role models. It appears that the extent to which the student subscribes to the norms and values of the teacher is an important measure of the degree of socialization, for the teacher holds the responsibility of perpetuating the norms and values that nursing regards as important. In the socialization process, it also appears that students change values and beliefs as they encounter sequential

phases of the socialization process, and their success may be reflective of how well they internalize the values and norms associated with nursing. Thus it would seem that through the socialization process, values and norms of students become more congruent with those of their instructors. Senior students appeared more independent and more in control of their learning which reflects an experimentalist or existentialist profile.

Successful Integration in Post Secondary Learning

Many studies have been completed that examine those factors that are responsible for successful integration into higher learning (Astin, 1975; Tinto, 1975; Pascarella and Terenzini, 1980). Because of the allegedly high withdrawal rates in post secondary institutions, there is a vital concern regarding the loss of valuable resources (student and financial). Attrition studies in nursing are of particular significance because of high student withdrawal rates, ranging between 30%-45%. Steed (1974), in her study of diploma nursing programs in Alberta, found the average attrition rate was 43%. In a more recent study of diploma nursing programs throughout Ontario, Weinstein, Brown and Wahlstrom (1980) found the average provincial attrition rate was 33%. Levitt's (1971) findings confirmed that the highest withdrawal occurred in the first and second semesters of the nursing program. Considering these statistics, it is important to examine all factors associated with assisting students in their

adjustment to post secondary learning and successfully attaining their goals.

Although this study considers the congruence between philosophical profile and achievement, a brief consideration of other factors that may influence success are also included for comparison purposes. Those factors contributing to academic and clinical success are outlined below.

Academic Success in Nursing

In post secondary learning numerous studies have supported the notion that previous success is an important indicator of success in college (Tinto, 1975; Pascarella and Terenzini, 1980). Astin (1975) in a review of several attrition studies noted that previous successful accomplishment in high school was most indicative of how the students would perform in college. Tinto (1975) examined those factors that are associated with successful integration into the academic and social dimensions of post secondary learning. He states that precollege factors, such as the individual's attributes, values, and family background contribute to the formation of aspirations (desire for a goal). These aspirations are important intervening variables in post secondary success because they exert their effect directly and indirectly in the formation of goal commitments. The intensity of the goal commitment is a critical factor in how the student will adjust, as well as how successfully the student will achieve

integration into the post secondary institution. Tinto (1975) reinforced the idea that if the goal commitment is great it may overshadow other barriers and enable successful achievement. Fuller et al. (1982) state that positive perceptions of both the desired outcome of the goal and the assessed expectancy of achieving it are major factors in motivation and successful attainment of aspired goals.

Most nursing studies have supported the notion that prior success is an important indicator of how successful the student will be in nursing, particularly in the academic dimension. In a nursing study, Stronck (1979) found high school grades to have a direct impact on academic performance in nursing. Peng (1980) confirmed that persistence in nursing is correlated to high school attainments, and that high school grades are more predictive than standardized tests in determining the success in nursing. Munro (1981), in her national study on attrition in nursing, identified measured aptitudes as having a significant effect on high school grades, which then had the strongest effect on academic performance. Bello (1977) found that reading ability, high school algebra grades and college science grades were the best predictors of nursing grade point average.

Grassi-Russo and Morris (1981) argue that, although cognitive factors are important determinants in success in most post secondary settings, in nursing education consideration must also be given to the affective components. Researchers have

examined numerous affective dimensions to ascertain the influence upon performance in nursing. Owens (1970), in a nursing attrition study comparing cognitive to attitudinal variables, found that the latter did not contribute significantly to student persistence in two year nursing programs. Other researchers have applied multivariate approaches to academic success. Seither (1974) studied how three tests related to nursing grade point average, namely the California Short Form Test of Mental Maturity, the California Test of Personality, and the California Reading Test. Only reading comprehension was related significantly to the academic nursing grades. Baker (1975) studied the nonintellective differences (attitudes, values, and personality characteristics) between dropouts and graduates in a nursing associate degree program. Although there were no differences in values, there were differences in other affective areas. Graduates were more achievement oriented, responsible and self-controlled than dropouts. Successful students also manifested more accepting and nonjudgmental attitudes toward other people.

Hayes (1981) notes that measures of intellectual achievement have been traditionally used as cognitive predictors in nursing but that a peak has been reached with the usefulness of these predictors. She studied the additive value of cognitive and noncognitive variables (California Psychological Inventory and the Survey of Interpersonal Values) to predict academic success in a baccalaureate nursing program. Although her results indicated

there was no significant difference from noncognitive factors over and above the cognitive variables, she suggested that, because of the multisensory nature of nursing, further studies in the noncognitive area need to be conducted.

In summary, examination of the major factors associated with college success shows that precollege grades and measured aptitude are strongly correlated to successful post secondary integration. Studies specifically relating to nursing reinforce this finding. Because of the multi-faceted learning in nursing, researchers have attempted to identify other non-cognitive factors that may be more indicative of success in nursing, both academic and clinical. Many of these studies have indicated that factors other than aptitude and past performance have little effect on achievement.

Clinical Success in Nursing

Studies of the effectiveness of students' clinical or hospital learning have primarily focused on the perceptions of students in relation to what constitutes effective clinical teaching (Pugh, 1986). Clinical experience is a vital part of the nursing socialization process, comprising 12-16 hours of learning each week. Although classroom teaching can be evaluated by tools of other disciplines, there are few criteria for the evaluation of the clinical component of teaching (Pugh, 1986). In view of this, perceptions of nursing students regarding what aspects of clinical

learning are most facilitative or hindering in the students' socialization process are considered.

Morris and Grassi-Russo (1979) emphasize the importance of the instructor as a role model in the clinical setting as she assesses not only academic integration but clinical application as well. In their study, students indicated that their most important hope was for instructor support, and their greatest fear, was that of failure. If students are feeling the pressure, stress, and fear of failure, the role of faculty assumes even more importance. Grassi-Russo and Morris (1981) also surveyed nursing students after eight months in the nursing program. Twenty percent of the 118 students stated their "most positive experience" involved their association with the "instructors" in the nursing program. This experience was ranked the highest of nine; other experiences included "being competent", "helping patients" and "working with people".

Windsor (1987) in her study of effective clinical instruction found students expected instructors to demonstrate professional behavior such as confidence, thoroughness, neatness, respect and supportiveness. They also felt the instructors should have high student expectations, assign difficult patients, ask questions and encourage problem solving. Wong (1978) in her study of diploma nursing students found that those teacher behaviors that were reported as helpful to students' learning were "demonstrating willingness to answer questions and offer

explanations", "being interested in students and respectful to them" and "giving students encouragement and due praise". Those behaviors that were most hindering were "posing a threat" and "being sarcastic". She noted that students in first year nursing were particularly sensitive to how the teachers made them feel, whereas students in their second year, although also sensitive in this area, seemed more concerned with the teacher's competency in teaching. Grebremedhin (1974) examined students' perceptions of instructor qualities that were most facilitating to clinical learning. Twenty-seven sophomores and twenty-seven seniors from a baccalaureate program were involved in the study. Items selected most frequently were "shows respect for your questions and opinions", "increases your skill in thinking", and "demonstrates interest in and acceptance of you as a person". These are reflective of both affective and cognitive attributes. There were no significant differences between sophomores and seniors.

O'Shea and Parsons (1979) also studied first and second year students' beliefs about effective teaching. Students rated as important: "constructive and honest feedback", "faculty availability and willingness to help", and "supportive, concerned and understanding instructors". Karns and Schwab (1982) surveyed baccalaureate students to identify those teacher behaviors that were most facilitative in establishing a relationship between students and faculty. Those identified as most relevant were empathy, congruence (honesty) and positive regard (respect).

Blomquist, Cruise and Cruise (1980) compared the values of baccalaureate freshmen and senior students. Seniors ranked the following instrumental values significantly higher than did freshmen: "independent", "imaginative" and "honest". Seniors valued "freedom" more than freshmen and "self respect" became more important for students in their senior year. Conversely, seniors gave "ambitious" a significantly lower rating than freshmen.

In consideration of these clinical studies, the student-instructor relationship appears to be a vital key in successful integration into the clinical role. It would appear this relationship is more influential in clinical success, possibly because there is a closer interaction of beliefs, values, norms and expectations. From the literature review, nursing students seem to regard as important in their clinical success those beliefs and values associated with the experimentalist and existentialist philosophies. For instance, they view the instructor's role as supportive in assisting them to problem solve effectively and also regard as important the acceptance of each individual as a person. The environment of learning is interactive with constructive and honest feedback being an important ingredient. Whereas, those factors which are identified as least helpful, being sarcastic and posing a threat could represent a more authoritarian teaching style which would hinder student's initiative and clinical effectiveness.

Congruency of Beliefs

Getzels' (1963) view of each person's behavior being a consequence of meeting individual need dispositions while simultaneously fulfilling certain roles and expectations within the institution provides the basis for understanding congruency of beliefs. A nursing instructor with individual personality characteristics and needs has been socialized to fulfill the roles and expectations that are associated with teaching nursing. Likewise, a student with unique personality characteristics and needs seeks to fulfill the terminal value of becoming a nurse by meeting the expectations in the nursing program. Getzels (1963) cautions that when the expectations of the institution are not congruent with the individual need disposition, conflict can result. Likewise, when the role expectations the instructor holds do not correspond with those the student is enacting, conflict again can arise. Differences in beliefs and values regarding the role expectations and individual need dispositions can generate conflicts, which in turn, can divert energy away from the learning process.

In examining the notion of congruency of teacher-student beliefs and their influence on performance, Majasan (1972) investigated college students' achievement in relation to the congruency of teachers' and students' beliefs about psychology. He examined the beliefs of twelve instructors along with freshmen and sophomores enrolled in seventeen introductory psychology

classes through a specially developed belief questionnaire. His findings indicate that achievement was related to students' initial beliefs regarding the "nature of psychology"; students whose initial psychology beliefs were more congruent to instructor beliefs achieved higher grades in the course.

In nursing, congruence of beliefs between instructor and student has also been studied in relation to those qualities and behaviors that are important in the clinical area. Again, perceptions of students and instructors have been compared to identify areas of congruence and dissonance. Brown (1981) stated that instructors must attend to the affective as well as to the content aspects in order to enhance students' attitudes and motivations regarding nursing. Her study of the congruency of beliefs of baccalaureate students and their teachers regarding effective clinical teacher qualities indicated that students rated the following qualities as most important: "shows genuine interest in patients and care", "conveys confidence and respect", "well informed and able to communicate knowledge" and "encourages questions". On the other hand, instructors described the following teacher qualities as most important "relates theory to the clinical area", "well informed and able to communicate knowledge" and "objective and fair". When questioned regarding the most important factors in clinical success, students ranked the relationship of instructor to students as the most important, followed by professional competence, and personal attributes.

Nursing faculty, on the other hand, ranked professional competency as most important, followed by relationships between faculty and student, then personal attributes. This indicates that students view faculty-student relationships as most vital to their performance, even above that of competency. This suggests that congruency in values and expectations are important ingredients in a student's performance.

Another investigation by Brodkorb (1979) surveyed both faculty (n=125) and students (n=1130) in nine nursing schools representing diploma, associate degree and baccalaureate nursing programs. Using an investigator-constructed instrument containing behavioral items, faculty and students were asked to rate the five most important instructor behaviors. Faculty and students in all programs selected the same two behaviors as most important: "allows me to function as independently as I am able" and "relates with honest, forthright manner my specific strengths and weaknesses". Stafford (1979) sought to determine what behaviors were most influential in effective clinical teaching as viewed by nursing students, faculty and graduate nurses. When respondents were asked to rate the importance of items, the three groups of subjects agreed that behaviors such as functioning as a role model for students, identifying important clinical content, and providing opportunities for problem solving and practice of clinical skills were most important. Students placed high value

on being treated as colleagues, whereas faculty viewed this behavior as less important.

In another study, Crocker and Brodie (1974) measured the degree of congruence between scores of students and faculty on an instrument representing expectations of nursing. The instrument identified sixty behaviors common to practicing nurses (Nurses' Professional Orientation Scale). Response categories measured the extent to which opinions of students shifted toward those of faculty during their nursing program. They found that students' views shifted markedly toward those of faculty, with a significant difference between scores of freshmen and seniors. Scores of seniors were very similar to those of faculty. Tetreault (1976) studied baccalaureate junior and senior students (N=157) to assess whether teacher beliefs were adopted by students. Two questions tested were: When teacher professional attitude is high, are students likely to score high on a professional attitude measure? When teacher consideration of students is high, will students have higher professional attitude scores? Those students who were highly challenged by teachers showed a tendency to score high on the attitude instrument. Students who rated teacher consideration high had significantly higher scores on professional attitude. Surprisingly, there was no difference between junior and senior students in their views of the profession in terms of beliefs of what nursing "is" and what "should be".

Ondrack (1975) compared attitude changes in students in three diploma programs. He made the assumption that "socialization in professional schools is a function of attitude and value consistency among significant others during the socialization process" (p.97). He used an attitude questionnaire consisting of seven attitude scales and administered it to students, teachers, head nurses and practicing nurses. He found that where there was high internal consistency among faculty and staff in five out of seven attitude subscales, students at graduation scored close to their teachers on five of seven attitude scales, whereas in those schools where there was a low internal consistency (faculty and staff nurses differed on five of seven of the subscales), students differed significantly from their teachers on these same scales. In another investigation, Sharpe and Anderson (1972) sampled baccalaureate students in order to ascertain whether successful and unsuccessful freshmen nursing students differed in their conception of the "ideal" nurse. They used an Adjective Check List of three hundred personal attitude items. Scores on the instrument did not discriminate between successful and unsuccessful students. There was very little difference between the scores of freshmen, seniors and faculty. In general, all students scored higher than faculty on deference, and faculty scored significantly higher on autonomy.

In review, studies examining the congruency of beliefs between faculty and students indicate that there is an important interplay of beliefs that influence students' performance. In nursing, there appears to be congruency regarding those factors or behaviors that are most facilitative in the clinical area. Students and faculty appear to prefer an environment that is supportive, yet encourages problem solving and questioning, again reflecting the tenets of the experimentalist profile. Students in their progress through the program shifted their views regarding the expectations of nursing. There was more congruence with teacher beliefs evident with seniors, than with freshmen. This could suggest that, through the role socialization process, there is a movement towards congruency of beliefs between faculty and students.

Summary of Literature Review

This review examines how beliefs and values influence academic and clinical performance. Because of the absence of studies in this area, certain areas were selected to provide a basis for examining the impact of beliefs on nursing students as they progress through the program. Past and prevailing beliefs and values in nursing were reviewed with particular emphasis on the "role socialization" process in nursing. Those factors that influence academic and clinical success were explored. Congruence of beliefs between teacher and student was considered. This

review provides the basis for deducing what implications arise from beliefs and how they relate to performance.

Examination of nursing in the past reveals that it was closely aligned with the more traditional philosophies of perennialism and idealism, particularly characterized by dependency, passivity, low autonomy, anti-intellectualism and subordination. Nursing students in the 1980's appear more geared to independent decision making and practice based on nursing science. They are more heterogeneous and have a variety of work and educational experiences. They still reflect high social values, but are more concerned with economic values than students in the 1970's.

In the "role socialization" process, there is acquisition of knowledge and skills, integration into clinical learning and internalization of norms and expectations. This process takes place both formally and informally with faculty, fellow students and staff serving as important referents. How well the student internalizes the norms, values, and expectations will be related to how effectively the student achieves integration into nursing.

Studies regarding the factors contributing to academic success in nursing are primarily cognitive in nature, with previous high school grades and aptitude being the most predictive. In nursing, because it encompasses cognitive as well as affective learning, other areas have been explored. Most

studies indicate that affective factors are not as powerful as cognitive ones in significantly influencing performance.

In the clinical dimension of nursing, most studies have examined those qualities and values of clinical teaching that are most facilitative or hindering as viewed by nursing students. It appears that instructor-student relationships are more crucial in the clinical dimension than in the academic one. This could be related to the close interplay of values, norms, and expectations that occur in the clinical setting. Students have reported that instructors who encourage problem solving and provide support and encouragement in the clinical area are most beneficial to successful clinical progress. These qualities appear reflective of the more liberal philosophies, particularly experimentalism.

In examining belief congruence, there appears to be an association between student-faculty beliefs and how successfully students will integrate into nursing. In nursing studies, examination of student and teacher perceptions regarding clinical teaching indicate that there is a commonality in what constitutes a clinical setting conducive to learning. Again, both students and teachers ratify the importance of effective problem solving in the clinical area as well as instructor support and encouragement. It appears that as students progress through the program, their beliefs and values become more congruent with the instructors.

The studies selected provide the basis for this exploratory investigation into beliefs and their influence on performance. An

outline of how these studies specifically relate to the questions is now considered. Question one is concerned with the demographic characteristics of nursing students in a college diploma program. Aldag and Rose (1983) found that nursing students are older than in the 1960's with considerable work experience and previous education. Kaiser (1975) found that over half the students in two-year college nursing programs had college preparatory secondary education and many had completed other educational programs prior to seeking entry into nursing. Bullough and Sparks (1975) found that college nursing students reported high aspirations, with more than half the students indicating they hoped to obtain a baccalaureate degree in nursing. Flanagan (1982) also stated that more males are now entering nursing than was true in the past. These studies reflect that many non-traditional students are seeking entry into nursing, and that they bring life experiences related to previous work and educational experience into the new setting.

Question two examines the differences among first year nursing students, second year nursing students and faculty. Crocker and Brodie (1974) state that in the socialization process of nursing, the degree to which the student adheres to the values and norms of the teacher can be regarded as a valid measure of the effectiveness of the socialization process. Dalme (1983) found that senior students expressed more confidence in controlling the socialization process in nursing and felt they were more capable

of successfully implementing changes. She also found that there was more group spirit with first year students, and more competitiveness with second year clinical students. Blomquist, Cruise and Cruise (1980) surveyed the values of baccalaureate freshmen and senior students to determine which instrumental values were significantly different for each level. Seniors rated the instrumental values of independence, imagination, and honesty significantly higher. Seniors also rated freedom and self respect as significantly more important than freshmen. These studies identify some of the differences in beliefs and values as students progress through the nursing program.

This investigation also examined the relationship of beliefs to academic success of nursing students. Although many studies have been conducted regarding cognitive factors that are indicative of academic success, there have been relatively few studies done examining the influence of noncognitive factors. Owens (1970) compared cognitive and attitudinal variables as they relate to success in nursing, but found that attitudinal variables did not significantly contribute to students' persistence decisions. Seither (1974) examined the influence of three variables, a test of mental maturity, a personality test, and a reading test to determine the influence on the nursing grade point average. Only the reading comprehension test was significantly related to the nursing theory grades. Hayes (1981) studied the additive value of cognitive and noncognitive variables

(psychological inventory and values survey). Only the cognitive factors were related to success in nursing. She reinforced that although many of the affective variables do not contribute significantly to success in nursing, because of the multi-sensory nature of nursing, further investigations need to be conducted regarding affective factors and their influence upon performance.

In examining the influence of beliefs and values on clinical performance, there is a dearth of studies that relate beliefs to clinical achievement. Most of the studies that have been conducted relative to clinical experience have involved student reporting of those factors that are most important in clinical teaching and learning. A thorough review of the literature has found no studies that directly relate to this question.

Finally, congruency of beliefs was examined as it relates to persistence and withdrawal in nursing. Only one study, Majasan (1972) examined the congruency of student-faculty beliefs as related to achievement. The results from this study in psychology indicated that the greater the congruency of beliefs, the higher the academic achievement. Studies in nursing have examined the notion of belief congruence between faculty and student but not how this relates to achievement.

This review has not only examined studies germane to the specific questions, but has also considered other studies in an effort to build a picture of beliefs and values in nursing and how these could influence performance. This provides the basis for

considering how beliefs and values influence academic and clinical performance.

CHAPTER 3

METHODOLOGY

Problem

This correlational study examined the relationship between educational beliefs and students' academic and clinical performance. The purposes of this study are reflected in the following questions:

1. What are the demographic characteristics of nursing students in a diploma nursing program?
2. Is there a significant difference in educational beliefs among first year students, second year students and faculty?
3. Is there a significant relationship between educational beliefs and academic performance in a diploma nursing program?
4. Is there a significant relationship between educational beliefs and clinical performance in a diploma nursing program?
5. Is there a significant difference in educational beliefs when comparing faculty to students who persist in nursing and to students who withdraw from the program?

Instrumentation

The instruments used for the assessment of quantitative data were a demographic questionnaire (Appendix C) and the Philosophy Preference Assessment (Appendix B), an opinionnaire related to educational beliefs. These instruments are described below.

Demographic Questionnaire

The demographic questionnaire was used to derive a "composite picture" of students enrolled in the diploma nursing program. The nine demographic characteristics on the questionnaire were: sex, age, marital status, number of children, entrance qualifications, post-secondary education, previous work experience, years of work experience, and future academic plans. These factors were selected because they include common demographic data used in other instruments (Williamson, 1981) and provide a clear definition of the sample that is being considered.

Philosophy Preference Assessment

Original Philosophy Preference Assessment

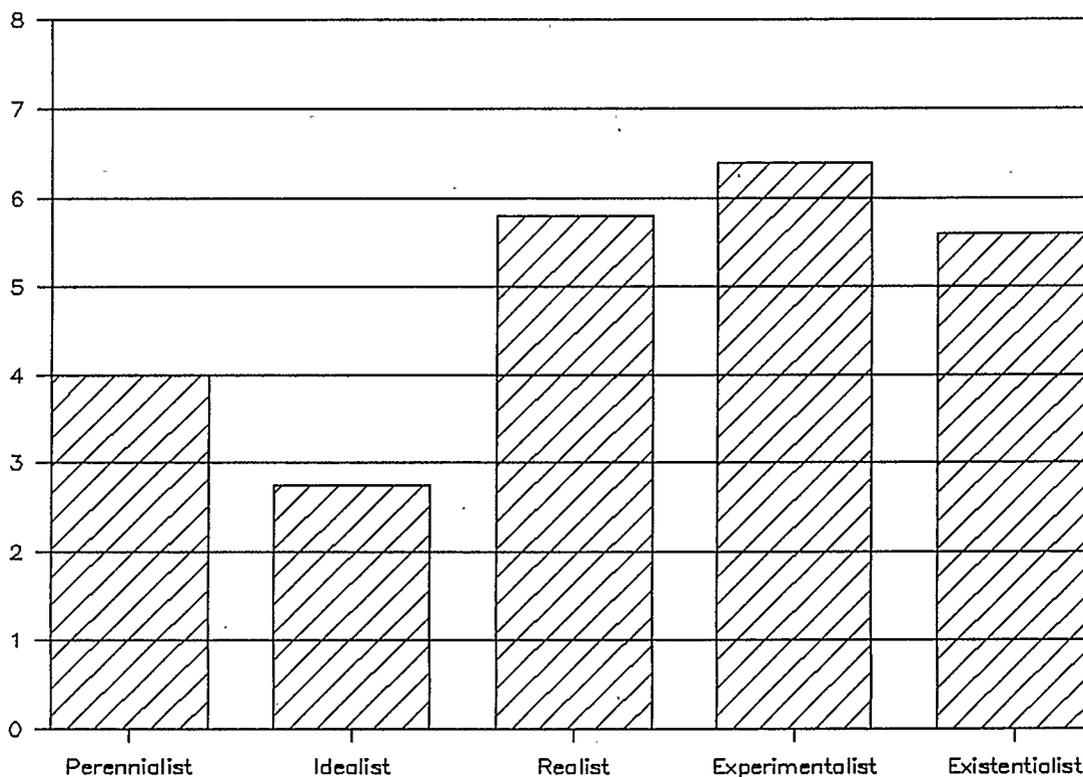
The instrument used for this investigation is based on the Philosophy Preference Assessment developed by Wiles and Bondi (1979) and modified for this thesis. As the basis for derivation of the instrument, Wiles and Bondi considered the tenets of five educational philosophies: perennialism, idealism, realism,

experimentalism and existentialism (Appendix A). These philosophies reflect different perspectives related to the ends and means of schooling. The instrument is comprised of forty items, with eight descriptive statements about each of the five philosophies. The results of an assessment can be used to develop a philosophic profile of the individual.

Wiles and Bondi (1979) used the Philosophy Preference Assessment with 800 students, both graduate and undergraduate, at two universities. Their profile results are presented in Figure 2:

Figure 2

Wiles and Bondi
Philosophic Profile
Graduate and Undergraduate Education Students



The composite profile identifies experimentalism as the philosophy of highest preference and idealism as the lowest. Categories adjacent to experimentalism, realism and existentialism are also relatively high. Wiles and Bondi (1979) state that this is to be expected since some belief characteristics are comparable between adjacent philosophic categories. They also caution that individuals may blend tenets of the different philosophies forming an eclectic philosophy, rather than adopt the beliefs pertaining to a single philosophy. Wiles and Bondi (1979) provide no statement of reliability although the instrument is assumed to have face validity.

Modification of the Philosophy Preference Assessment

Prior to this investigation, the Philosophy Preference Assessment (Wiles and Bondi 1979) was administered in a pilot project to second year nursing students (nearing the completion of their program) and to full time nursing faculty. After the administration of this instrument, informal discussions were held with faculty and students, relating to the clarity and distinctiveness of the items. A number of items were targeted for additional review.

In addition to the above review, three graduate students knowledgeable in the philosophies of education were invited to review the content validity of the Wiles and Bondi instrument. The three reviewers were asked to examine the tenets of each philosophy

using the following sources: Brameld (1951), Morris and Pai (1976), and Wiles and Bondi (1979). They were then asked to review the belief statements and identify those which were difficult to categorize within the five philosophies. The researcher in consultation with others versed in educational philosophies reviewed and revised the items of the original instrument. These revisions were then returned to the three graduate students who indicated that the revised statements more clearly depicted the differences in philosophic stance than did the previous instrument. Although several items were modified, many of the changes just involved minor rewording. A detailed listing of the changed items, as well as the reasoning behind the changes, are included in Appendix D. Williamson (1981) suggests that by subjecting the statements to critical analysis, the content validity of the instrument is enhanced.

A further check on the content validity was completed after administration of the instrument to students. With first and second year students' responses, correlations among the philosophies were computed. These correlations as outlined in Table 1 indicate that there is a close association between adjacent philosophies, particularly when viewing the significance of the three central philosophies: idealism, realism and experimentalism.

Table 1
Correlations of
Philosophic Beliefs

	Perennialism		Idealism		Realism		Experimentalism		Existentialism	
	r	p	r	p	r	p	r	p	r	p
Perennialism										
Yr 1	1.00		.32	.00	.27	.00	.11	.13	-.08	.18
Yr 2	1.00		.66	.00	.53	.00	.19	.06	.03	.39
Idealism										
Yr 1	.32	.00	1.00		.27	.00	.18	.02	.22	.01
Yr 2	.66	.00	1.00		.43	.00	.20	.05	.09	.22
Realism										
Yr 1	.27	.00	.27	.00	1.00		.32	.00	.14	.06
Yr 2	.53	.00	.43	.00	1.00		.29	.01	.16	.10
Experimentalism										
Yr 1	.11	.13	.18	.02	.32	.00	1.00		.50	.00
Yr 2	.19	.06	.20	.05	.29	.01	1.00		.49	.00
Existentialism										
Yr 1	-.08	.18	.22	.01	.14	.06	.50	.00	1.00	
Yr 2	.03	.39	.09	.22	.16	.10	.49	.00	1.00	

r - correlation coefficient
p - significance

With the central philosophy, realism, there is a significant correlation with idealism (Yr 1: $r = .27$, $p = .00$; Yr 2: $r = .43$, $p = .00$) and with experimentalism (Yr 1: $r = .32$, $p = .00$; Yr 2: $r = .29$, $p = .01$). The smallest correlation is evident between perennialism and existentialism (Yr 1: $r = -.08$, $p = .18$; Yr 2: $r = .03$, $p = .39$). Considering that these two philosophies are on opposite ends of the spectrum, this is reasonable. The correlation coefficient also tends to be larger with adjacent philosophies, such as between experimentalism and existentialism (Yr 1: $r = .50$, $p = .00$; Yr 2: $r = .49$, $p = .00$) indicating a moderate level of common variance. Consequently, the validity of the instrument appears to hold on construct grounds.

Reliability of the Philosophy Preference Assessment

A determination of reliability of the Philosophy Preference Assessment was made by having students read the statement and orally give their responses in the second meeting. Reliability is the quality of consistency that the instrument demonstrates over a period of time (Best, 1981). Three key items were selected that represented the major tenets of the philosophies, including some of the revised items from the original Philosophy Preference Assessment (Wiles and Bondi, 1979). Some discussion about what students thought about the item ensued at this time.

Students were randomly selected for the reliability check (Yr 1 students-15; Yr 2 students-9) and this was completed within one week of the original testing. The results are in the form of

numbers and percentages of students whose responses were the same in the meeting as on the original answer sheet, as well as a listing of the number of changed responses. The percentage of the "same responses" are then identified in the "percent same" column. The results of the reliability check are identified in the Table 2:

Table 2
Results of Reliability
Determination

Philosophy	Item Number	Same Responses	Changed Responses	Percent Same
Perennialism	10	18	06	75.0%
	34	24	00	100.0%
	37	22	02	91.6%
Idealism	09	17	07	70.8%
	19	21	03	87.5%
	24	18	06	75.0%
Realism	4	20	04	83.3%
	23	20	04	83.3%
	28	19	05	79.2%
Experimentalism	3	19	05	79.2%
	25	18	06	75.0%
	35	20	04	83.3%
Existentialism	1	21	03	87.5%
	5	18	06	75.0%
	36	19	05	79.2%

A large proportion of the students answered in a similar fashion when responses were checked during the second meeting, although there were some variations. Considering the fifteen

items, five (5) of the items were in the range of 70% - 75% similarity; six items were in the 79% - 83% range, and four items were above 86%. However in all but two cases, the disparity involved changes in adjacent Likert categories. In only two instances, involving statements 25 and 35, students changed their position to the opposite Likert category (disagree to agree). On the basis of these results, the reliability of the Philosophy Preference Assessment, appeared to be within an acceptable range.

Subjects

Two categories of participants, nursing students enrolled in a college diploma nursing program and faculty, were subjects for this investigation. The students who participated were

1. First year nursing students: Originally, all 118 students completed the Philosophy Preference Assessment. The academic and clinical progress of these students was monitored over the two years. The number of students remaining at the end of each semester in first year is outlined below: semester 1 - 105 students; semester 2 - 81 students; semester 3 - 77 students. In second year, 70 students completed the four academic and four clinical courses with 68 students completing the external registered nurse examinations.
2. Second year nursing students - At the same time that first year nursing students completed the philosophy preference assessment, a different group of second year students

completed the same instrument. The information from this group was used to identify the characteristics of students and examine belief differences among first year students, second year students and faculty. This group numbered 70 students.

3. The faculty participants were 20 full time nursing instructors teaching in a college diploma nursing program.

The students were chosen to facilitate a comparison of beliefs between entering students and students in their second year of the nursing program. In addition, the first year students' academic and clinical progress was monitored throughout the two years to examine the relationship between beliefs and performance.

Procedures

Contacts and Instrument Administration

Preliminary arrangements for this study were made by requesting permission from the chairperson of the diploma nursing program to conduct the study with nursing students and faculty. After obtaining departmental consent, permission was also given by faculty members teaching the nursing tutorials to use scheduled class time for students to complete the instrument. The plan for administration of the instrument involved contacting the students in September and using tutorials (15-20 students) for completion of the instrument.

The decision was made by the researcher to personally administer the instrument to the students. At this time, the researcher was not a "power figure" in students' lives by virtue of her absence from teaching responsibilities for the year. This provided the opportunity to explain the purposes of the study and to give oral instructions related to the instrument administration. Likewise, students could ask questions relating to: the study, confidentiality measures and instrument completion process. It was hoped that through the researcher's personal administration of the instrument, students would be honest and open in their responses without the fear of "what the instructor might think" influencing their opinions. Finally, this method of administration would protect the confidentiality of the responses because instructors would not have access to the results. Williamson (1981) states that the personal appearance of the researcher creates added incentive to complete the questionnaire and encourages participants to clarify concerns at the time of instrument completion.

Prior to the administration of the instrument, measures related to confidentiality were explained. Students were instructed to identify their answer sheets by their student identification numbers. Identification of responses would be necessary to allow the researcher to match students' belief profiles to their respective academic and clinical grades. Access to the information on the response sheet would be limited to the researcher and the computer consultants. Identification numbers would be removed from

the computer printouts to preserve the anonymity of the students, and under no circumstances would nursing faculty have access to data from individual belief profiles. The importance of student confidentiality has been extensively addressed in research methodology literature (Alreck and Settle, 1985; Best, 1981; Shelley, 1984).

Three contacts were made with the nursing students to facilitate instrument administration, reliability check and follow-up visits. The first contact, in September, was made with first and second year nursing students in groups of 15-20 students. The purposes of the study were explained and background information shared with them. Students were invited to participate in the study by completing the instrument, but were given the opportunity to decline if they so chose. With the demographic questionnaire, the researcher clarified the items related to entrance qualifications, post secondary education, previous work experience and future plans.

The revised Philosophy Preference Assessment (Appendix B) was explained. Students were informed that the results from this assessment would not affect their marks in any way. Students were encouraged to respond to each item on a five-point Likert scale (strongly disagree to strongly agree) and were informed that there were no "right" or "wrong" answers.

The second contact, within one week of the first one, was made with nursing students for the purpose of checking the reliability of the Philosophy Preference Assessment. The researcher

selected students for this check by using the class lists which contained students' names along with corresponding numbers. Students were then randomly selected by drawing numbers and contacting the students whose names corresponded to the numbers drawn. Twenty-five students were selected initially, but one declined participation, leaving twenty-four (24) subjects; fifteen (15) students in first year and nine (9) in second year.

The third contact was a follow-up visit with the nursing students in the spring session to inform them that the initial data had been analyzed and to remind students that the next phase of the study, the matching of profile results to academic and clinical grades, would now proceed. Measures to assure confidentiality were again outlined and questions relating to the investigation answered. Students were given an opportunity to decline participation if they so chose. At this time, five first year students withdrew from the study leaving 113 of the original 118 students.

Treatment of the Data

Quantitative data was obtained from the demographic questionnaire and the philosophic opinionnaire. These sources provided information relative to characteristics and beliefs of students and faculty. Measures of academic and clinical performance were obtained through final grades achieved in the nursing theory and clinical courses.

The statistical computations for the following questions were performed using the Statistical Package for the Social Sciences (Nie et al., 1985). A researcher in deciding about a level of confidence has to consider the degree of error she is willing to accept when hypotheses are accepted or rejected. Although traditional research recognizes .05 as the measure of statistical significance, because of the exploratory nature of this study .10 was also used to facilitate informed speculation. With respect to this decision, the researcher is aware that the results may be labelled real or significant when in fact they are not, thus resulting in a Type 11 error (Williamson, 1984).

Question 1

What are the demographic characteristics of nursing students in a college diploma nursing program?

Initially, demographic data are presented in the form of frequency and percentage tables in the results chapter. The demographic data depict a "composite picture" of students. The subjects used for analysis of this question were first and second year students in categories one and two (page 66).

Question 2

Is there a significant difference in educational beliefs among first year students, second year students and faculty? The null hypothesis was stated for the testing of this question.

Each of the forty belief statements in the Philosophy Preference Assessment was analyzed and the means and standard deviations were calculated for first year students, second year students and faculty (Appendix E). The eight items representing each of the philosophies were grouped into subscales and the means and standard deviations were determined for the five philosophic subscales for first year students, second year students and faculty. These subscale means were used to derive a profile for each of the groups. In the results chapter, the comparative profiles are graphically portrayed to enable visual comparisons.

The philosophic profiles of first year students (category one, page 66), second year students (category two, page 66) and faculty (category three, page 66) were then compared using analysis of variance (ANOVA) to identify significant differences. The Scheffé test was used to identify which groups were significantly different.

Question 3

Is there a significant relationship between educational beliefs and academic performance in a diploma nursing program? The null hypothesis was stated in the testing of this question.

To examine the relationship between educational beliefs and academic performance, students' performance was monitored over the two years (subjects in category one, page 66). Three academic grades in the first year of the nursing program and four in the second year were accessed. These nursing theory grades were

expressed as percentages. The last academic grade in the second year is the standard score attained on the external Registered Nurse Examinations. All the academic grades were then correlated with the educational beliefs using the Pearson product moment correlation technique. These correlations were examined to determine the significance at the .10 or higher levels. Further to this, the general patterns of correlations were scanned to determine emerging trends.

As a crude criterion, Best (1981) cites that a correlation coefficient (r) may be evaluated based on the following:

Coefficient (r)			Relationship
.00	to	.20	negligible
.20	to	.40	low
.40	to	.60	moderate
.60	to	.80	substantial
.80	to	1.00	very high

However, Best also cautions that this crude analysis may be misleading and that the significance also depends upon the nature of the variables, the number of observations, and the range in the sample. Consideration must also be given to the sampling error that occurs in conjunction with the correlation coefficient.

Question 4

Is there a significant relationship between educational beliefs and clinical performance in a diploma nursing program?

The null hypothesis was stated in the testing of this question.

The relationship between educational beliefs and clinical performance was examined by monitoring the clinical progress of students (category one, page 66) throughout the program. Final grades from each clinical course, three in first year and four in second year, were obtained. The letter grades were converted numerically to facilitate computations: A = 4.0; A- = 3.7; B+ = 3.3; B = 3.0; B- = 2.7; C+ = 2.3; C = 2.0; F = 1.0. The passing grade in the clinical courses is a C grade.

Again, using Pearson product moment correlations, educational beliefs were compared to the clinical grades. These correlations were examined for significance as well as for emerging trends.

Question 5

Is there a significant difference in educational beliefs when comparing faculty to students who persist in nursing and to students who withdraw from the program? The null hypothesis was stated in the testing of this question.

To determine if there were any significant differences in educational beliefs, intergroup comparisons were made among faculty (category three, page 66), persisters and withdrawals (both from category one, page 66). An analysis of variance was conducted to determine the significant differences with the Scheffé test being used to identify which groups were significantly different.

CHAPTER 4

RESULTS OF THE INVESTIGATION

The results of this investigation are presented according to the questions asked in the following way:

1. Frequencies and percentages related to the demographic characteristics of first year and second year nursing students.
2. An overview of the aggregate philosophic profiles for each of the three constituent groups and an analysis of the variance (ANOVA) of educational beliefs among first year students, second year students and faculty.
3. The correlations of educational beliefs and nursing students' academic grades.
4. The correlations of educational beliefs and nursing students' clinical grades.
5. Finally, the analysis of variance (ANOVA) of educational beliefs among faculty, persisters, and withdrawers.

Question 1

What are the demographic characteristics of students in a diploma nursing program?

The number of students completing the demographic questionnaire totalled 188 (Year 1 N=118; Year 2 N=70). This information assisted in developing a "composite picture" of students. If subjects did not respond to the demographic item, the numbers and percentage of non-responders are indicated by the category "missing". In the analysis of the data the terms traditional and nontraditional student are used to differentiate between the young student and the more mature student as referred to by Bean and Metzner (1985). The frequency tables of the demographic characteristics are presented below:

Table 3

Sex of Respondents

Sex	Year 1		Year 2	
	N	%	N	%
Female	108	91.5	61	87.1
Male	9	7.6	8	11.4
Missing	1	.8	1	1.4
	N = 118		N = 70	

The results indicated that the largest proportion of students enrolled in the nursing program were female. Also, the percentage of males was higher in second year, than in the first year class.

Table 4

Age of respondents

Age	Year 1		Year 2	
	N	%	N	%
17 - 23	44	37.3	29	41.4
24 - 29	43	36.4	19	27.1
30 - 35	18	15.3	10	14.3
36+	13	11	11	15.7
Missing			1	1.4
	N = 118		N = 70	

In the group of first year nursing students, there were approximately the same proportion of students in the first two age categories (37% and 36%). Thirty-one students (26%) were above the age of thirty. This indicated that there was a considerable proportion of students from the "older" age categories. With second year students, there was a larger proportion of students in the first age range (41%) with a lower percentage in the second range (27%) as compared to first year. Thirty percent (30%) of the second year students were above the age of thirty.

Table 5

Marital Status

	Year 1		Year 2	
	N	%	N	%
Married	44	37.3	28	40.0
Single	58	49.2	31	44.3
Other	16	13.5	10	14.3
Missing			1	1.4
	N = 118		N = 70	

The findings indicated that a large proportion of students in both classes were traditional single students. However, many were married and were representative of the nontraditional college student (Year 1: 37%; Year 2: 40%).

Table 6

Children

	Year 1		Year 2	
	N	%	N	%
Yes	48	40.7	27	38.6
No	70	59.3	42	60.0
Missing			1	1.7
	N = 118		N = 70	

This demographic factor also served to differentiate between the traditional and nontraditional students. Approximately sixty percent of both student groups reported having no children. However, many students were nontraditional, in that they did have additional family responsibilities (Year 1:41%; Year 2:39%). These increased responsibilities may enhance motivation to persist and complete the nursing program, or these added responsibilities may make it difficult for the student to successfully complete the program because of the increased personal demands.

Table 7

Entrance Qualifications

	Year 1		Year 2	
	N	%	N	%
Diploma	22	18.6	16	22.8
Matriculation	55	46.6	34	48.6
Mature Admission	40	33.9	18	25.7
Missing	1	.8	2	2.9
	N = 118		N = 70	

It is of interest to note that the largest proportion of students had senior matriculation entrance qualifications, although a diploma was the minimal requirement. The mature admission provision permits a student twenty-three years of age or older to gain entrance into the program with four senior matriculation courses. It would appear that the second year class has a much smaller proportion of mature students.

Table 8

Post-secondary education

Education	Year 1		Year 2	
	N	%	N	%
None	23	19.5	18	25.7
College (1 yr.)	32	27.1	15	21.4
College diploma	9	7.6	4	5.7
University (1-3y)	21	17.8	14	20
University degree	5	4.2	4	5.7
Nurses Aid	12	10.2	6	8.6
Other	16	13.6	9	12.9
	N=118		N =70	

Fifty-seven percent (57%) of the first year nursing students and fifty-three percent (53%) of the second year students had some post-secondary education at either a college or university prior to coming into the nursing program.

Table 9

Years of Work Experience

Years	Year 1		Year 2	
	N	%	N	%
0 year	5	4.2	5	7.1
1-5 yrs	59	50.0	40	57.1
6-10 yrs	36	30.5	19	27.1
11+	17	14.4	6	8.6
Missing	1	.8		
	N=118		N=70	

Table 10

Previous Type of Work Experience

	Year 1		Year 2	
	N	%	N	%
No work experience	4	3.4	2	2.9
Work unrelated to nursing	70	59.3	36	51.4
Work related to Nursing	43	36.4	32	45.7
Missing	1	.8		
	N = 117		N = 70	

Most of the students in both years of the program had work experience prior to coming into the nursing program. Fifty percent

or more of the students had worked between one and five years. However, forty-five percent (45%) of first year students and thirty five percent (35%) of the second year students had over six years of work experience. First year students appeared to have more years of work experience than second year students. This previous work experience represents a considerable investment of time and effort in the marketplace. In all likelihood, this could mean that students bring many other skills into the learning environment. According to Table 10, less than four percent (4%) of the first year and less than three percent (3%) of the second year students came into the program with no work experience.

Table 11

Future Academic Plans

	Year 1		Year 2	
	N	%	N	%
None	15	12.7	6	8.5
Possibility	56	47.5	27	38.6
Likely to go further	47	39.8	37	52.9
	N=118		N=70	

This demographic characteristic reflects "future aspirations" and could provide data related to the strength of the motivation to complete the program (goal commitment). A larger proportion of first year nursing students reported the "possibility of pursuing

further education" (48%), rather than the "likelihood of pursuing further education" (40%). This finding could be related to the short time they had been in the nursing program (three weeks). They had been introduced very recently to the academic and clinical expectations. However, more than fifty per cent of the second year nursing students reported the "likelihood of pursuing further education" (53%). This could be related to their successful completion of the first year and their enhanced commitment to nursing as a terminal goal.

In summary, the majority of nursing students were female, between the ages of seventeen and twenty-nine years, with grade twelve matriculation, as well as some postsecondary education and previous work experience. Aldag and Rose (1983) in their examination of student characteristics noted that compared to students in the past, present students are older with backgrounds rich in work and educational experience. Kaiser (1975) found that the majority of nursing students had academic or college preparatory secondary education and many had completed other post-secondary programs prior to entering nursing. Flanagan (1982) noted that although entering nursing students are still predominantly female, more males are selecting nursing as a career than in the previous decades. It would seem that the students in this study reflect many of the characteristics of students in other diploma nursing programs.

Question 2

Is there a significant difference in educational beliefs among first year students, second year students and faculty?

When the Philosophy Preference Assessment was administered, the students and faculty were encouraged to record the strength and direction of their beliefs. Each of the forty belief statements was analyzed to derive the means and standard deviations for first year students, second year students and faculty (Appendix E).

The eight items pertaining to each philosophy were grouped into subscales and the subscale means and standard deviations computed. These results were used to derive a philosophic profile for each of the groups: first year students, second year students and faculty. The subscale results are identified in Table 12. The philosophy with the highest mean rating was found to be experimentalism; the lowest, perennialism. According to Table 12, the largest standard deviations occurred in the philosophy of perennialism. Faculty appeared to rate items pertaining to perennialism lower (M-22.6) than first year nursing students (M-24.49) or second year nursing students (M-23.74). In the philosophy of existentialism, second year nursing students appeared to rate the statements higher (M-29.51) than first year students (M-28.19) and faculty (M-28.10).

Table 12

Philosophic Profile Results:
First Year Students, Second Year Students
and Faculty

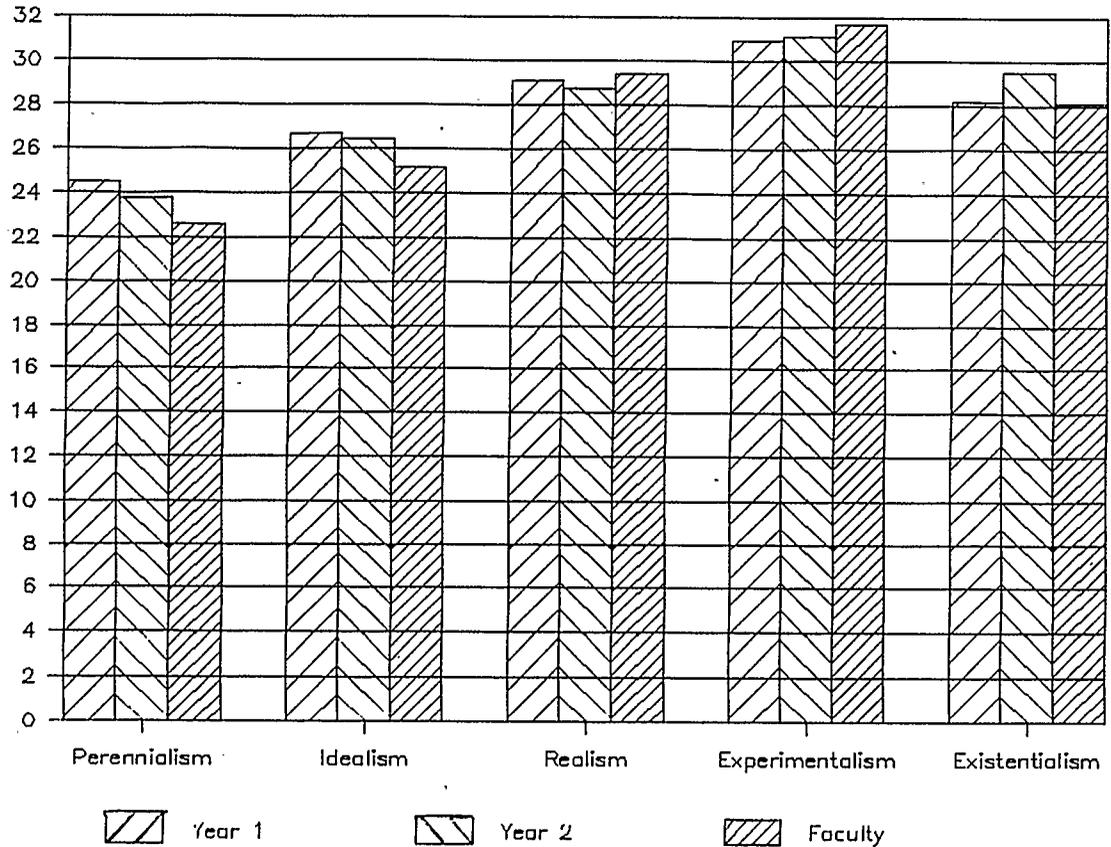
Subscale Results for Eight Items
Pertaining to Each Philosophy

Philosophy	Year 1		Year 2		Faculty		All Groups	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Perennialism	24.49	3.64	23.74	4.31	22.60	3.36	24.06	3.88
Idealism	26.68	3.38	26.46	2.79	25.15	2.98	26.46	3.17
Realism	29.09	3.11	28.73	2.98	29.40	1.96	29.00	2.97
Experimentalism	30.93	3.36	31.10	2.86	31.70	3.20	31.06	3.18
Existentialism	28.19	3.26	29.51	2.51	28.10	2.71	28.63	3.03
	N = 118		N = 70		N = 20		N = 208	

Comparisons were then made graphically to view the configuration of beliefs and to identify the most preferred as well as the least preferred philosophy according to the eight item subscale results. These results are presented in Figure 3.

Figure 3

Philosophic Belief Profile

First Year Students, Second Year Students
and Faculty

In comparison to the pilot study (Figure 1), the faculty profile was similar with perennialism the least preferred, and experimentalism the highest. Realism, in both faculty profiles is second in preference. Although the faculty profile in Figure 3 included ten new faculty members, it is interesting to note that the profile did not change in any major way. Considering the pilot study (Figure 1), the profile of students is very similar to faculty with

experimentalism being the highest and perennialism the lowest. However, second year students in this investigation (Figure 3) rated experimentalism the highest, with existentialism the second highest, while in the pilot study second year students rated experimentalism the highest and realism the second highest. In comparison to the Wiles and Bondi profile (Figure 2), undergraduate and graduate education students rated experimentalism the highest, with realism second and existentialism third. This was similar in configuration to the faculty profile. However, both nursing faculty and nursing students rated idealism higher than perennialism, and this was not the case on the Wiles and Bondi profile. This could be related to the role socialization process and the importance of the idealist belief of role modelling in nursing (Dalme, 1983).

The analysis of variance (ANOVA) was then undertaken to identify significant differences among first year students, second year students and faculty. The results as outlined in Table 13 indicated that the F ratio for perennialism was significant at the .09 level. The Scheffé test indicated that, although the F ratio was significant, there were no significant differences among the groups in the philosophy of perennialism when this more rigorous test was used. Two factors could have accounted for the lack of significance: the first one being the variation in the number of faculty (20) as compared to 118 first year students, and the other one being the large degree of standard error with faculty results (.752). The standard error was related to the dispersion or

Table 13
Analysis of Variance
First Year Students, Second Year Students
and Faculty

Perennialism						
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Year 1	118	24.49	3.64	.335)	2.41	.092
Year 2	70	23.74	4.31	.516)		
Faculty	20	22.60	3.36	.752)		

Scheffé Test Results: No significant difference among groups

Idealism						
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Year 1	118	26.68	3.38	.311)	2.006	.137
Year 2	70	26.46	2.79	.334)		
Faculty	20	25.15	2.98	.666)		

Realism						
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Year 1	118	29.08	3.11	.287)	.518	.596
Year 2	70	28.73	2.98	.357)		
Faculty	20	29.40	1.96	.438)		

Experimentalism						
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Year 1	118	30.93	3.36	.309)	.505	.605
Year 2	70	31.10	2.85	.341)		
Faculty	20	31.70	3.20	.715)		

Existentialism						
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Year 1	118	28.19	3.26	.300)	4.725	.010
Year 2	70	29.52	2.51	.299)		
Faculty	20	28.10	2.71	.607)		

Scheffé Test Results: Significant difference between Year 1 students and Year 2 students.

standard deviation as well as to the small number in the group. The Scheffé test is a conservative test used for identifying significant intergroup differences (Williamson, 1983). Table 13 also identified a significant difference between first and second year students in the philosophy of existentialism with second year students scoring significantly higher than first year. This could reflect nursing students' expression of having more control over the socialization process in their senior year, as opposed to the beginning student (Dalme, 1983).

Question 3

Is there a significant relationship between educational beliefs and academic performance in a diploma nursing program.

Pearson product moment correlations were completed to identify significant correlations between educational beliefs and academic grades in the nursing program. The correlation results are identified in Table 14 and graphically presented in Figures 4 and 5. Figures 4 and 5 identify the correlation coefficients for each educational belief and indicate which coefficients were significant for each of the nursing theory courses. The results indicated that there was only one significant correlation between educational beliefs and academic performance in the first year. This was a

Table 14

Pearson Product Moment Correlations
Academic Performance

Year 1 Academic Grades			Year 2 Academic Grades				
Semester 1	Semester 2	Semester 3	Psychiatric Nursing	Medical- Surgical	Maternity Nursing	Pediatric Nursing	R.N. Exams
Perennialism							
r	-.087	.039	.156	.132	.120	.228	.096
p	.19	.37	.10*	.14	.16	.03*	.22
Idealism							
r	-.068	-.173	-.104	.260	-.231	.018	.044
p	.25	.06*	.20	.02*	.03*	.44	.36
Realism							
r	-.012	-.037	.165	.197	.120	.193	.024
p	.45	.37	.09*	.05*	.16	.05*	.42
Experimentalism							
r	-.057	-.031	-.237	-.027	-.226	-.111	-.092
p	.28	.39	.02*	.41	.03*	.18	.23
Existentialism							
r	.035	.046	-.472	-.015	-.483	-.298	.065
p	.36	.34	.00*	.45	.00*	.01*	.30
N	105	81	70	70	70	70	68

* significant at .10 level or higher

r - correlation coefficient
p - significance
N - number

Figure 4: Correlations of Academic Performance, First Year Students

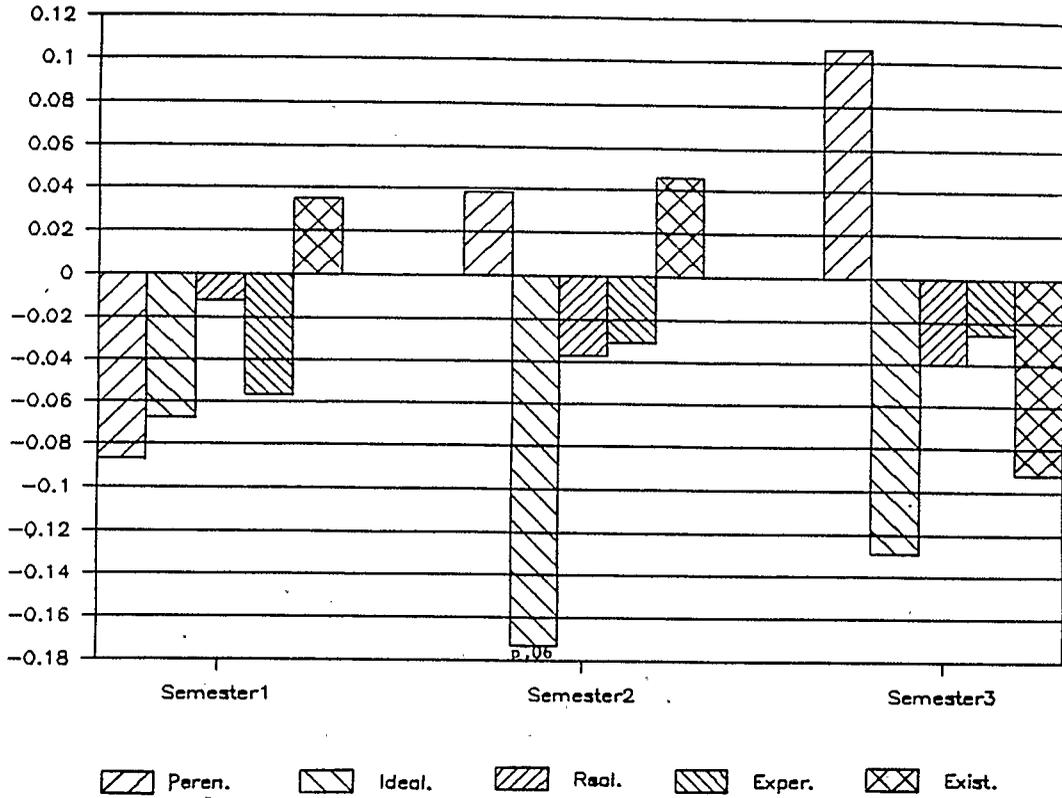
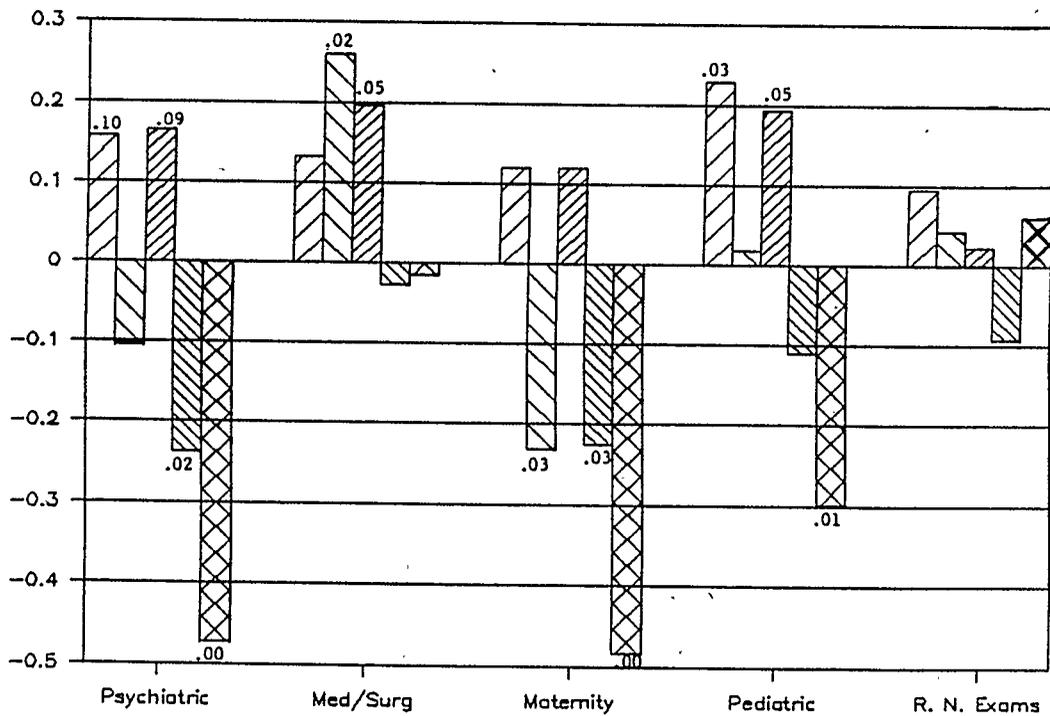


Figure 5: Correlations of Academic Performance, Second Year Students



correlation of $-.17$ ($p .06$) between the second semester academic grade and the philosophy of idealism.

In the second year of the program (Table 14, Figure 5), there were twelve significant correlations between educational beliefs and academic performance. The correlation coefficients were $.16$ ($p .10$) between perennialism and psychiatric nursing and $.23$ ($p .03$) between perennialism and pediatrics; $.26$ ($p .02$) between idealism and medical-surgical nursing and $-.23$ ($p .03$) between idealism and maternity nursing. Other significant correlations were $.17$ ($p .09$) between realism and psychiatric nursing, $.20$ ($p .05$) between realism and medical surgical nursing and $.19$ ($p .05$) between realism and pediatric nursing; $-.24$ ($p .02$) between experimentalism and psychiatric nursing and $-.23$ ($p .03$) between experimentalism and maternity nursing. The last group of significant correlations included $-.47$ ($p .00$) between existentialism and psychiatric nursing, $-.48$ ($p .00$) between existentialism and maternity nursing and $-.30$ ($p .01$) between existentialism and pediatric nursing.

From Figure 5 it should be noted that the correlation coefficients were all negative in second year for the philosophies of experimentalism and existentialism (registered nurse examination excepted) with two negative coefficients in idealism. The strength of the correlation coefficients was low ($.16$ to $.26$) for perennialism, idealism, realism and experimentalism. However, the coefficients were moderate in strength ($.47$ to $.48$) for two of the three significant correlations in existentialism.

There were interesting philosophic profile differences between students in their first year of the program as compared to second year students. In perennialism, there was only one negative correlation in the first semester course. However, in idealism, all three correlation coefficients in the first year courses were negative, with only two of the five being negatively correlated for second year students. With respect to the philosophy of realism, all first year academic courses were negatively correlated, whereas, all of the second year academic courses were positively correlated with three of the correlations being significant. In experimentalism, all of the coefficients for first and second year were negatively correlated. With respect to existentialism, the negative correlations were evident for the third semester in first year and all academic grades in second year (registered nurse examination excepted).

As reported by Grassi-Russo and Morris (1979), entering nursing students are interested in nursing science, which would be reflective of the positive correlation in the philosophy of realism. However, with the heavy emphasis on the scientific basis in nursing, these correlations may indicate that there was less emphasis on problem solving and independent decision-making reflective of experimentalism and existentialism in the nursing theory courses. This could explain the negative correlations in experimentalism and existentialism, particularly in second year.

Question 4

Is there a significant relationship between educational beliefs and students' clinical grades in a diploma nursing program.

Pearson product moment correlations were performed to identify the relationship between educational beliefs and clinical grades. There were three clinical courses in the first year of the nursing program and four in second year. The results as outlined in Table 15, and graphically presented in Figure 6 indicate that there were three significant correlations in the first year clinical courses. These were: $-.22$ ($p .03$) between idealism and the second semester clinical grade; $.17$ ($p .05$) between realism and the first semester clinical grade; $-.16$ ($p .09$) between existentialism and the third semester clinical grade.

In the second year of the program, there were eleven significant correlations as indicated in Table 15 and Figure 7. These were: $.16$ ($p .10$) between perennialism and pediatrics; $.30$ ($p .01$) between idealism and medical surgical nursing, $.18$ ($p .07$) between idealism and maternity nursing and $.29$ ($p .01$) between idealism and pediatric nursing. Other significant correlations included $.20$ ($p .05$) between experimentalism and psychiatric nursing, $.22$ ($p .03$) between experimentalism and medical surgical nursing, $.18$ ($p .07$) between experimentalism and maternity nursing and $.16$ ($p .09$) between experimentalism and pediatric nursing. In

Table 15

Pearson Product Moment Correlations
Clinical Performance

	Year 1 Clinical Grades			Year 2 Clinical Grades			
	Semester 1	Semester 2	Semester 3	Psychiatric Nursing	Medical- Surgical	Maternity Nursing	Pediatric Nursing
Perennialism							
r	-.055	-.061	.019	.120	.008	-.106	.156
p	.29	.30	.44	.16	.47	.19	.10*
Idealism							
r	.052	-.215	-.130	.015	.295	.178	.290
p	.30	.03*	.13	.45	.01*	.07*	.01*
Realism							
r	.165	-.046	.093	-.140	-.151	-.022	.058
p	.05*	.34	.21	.12	.11	.43	.32
Experimentalism							
r	.060	.044	.123	.201	.222	.178	.164
p	.27	.35	.14	.05*	.03*	.07*	.09*
Existentialism							
r	.060	-.089	-.156	.424	.328	.244	-.118
p	.27	.22	.09*	.00*	.00*	.02*	.17
N	105	81	77	70	70	70	70

* significant at .10 level or higher

r - correlation coefficient
p - significance
N - number

Figure 6: Correlations of Clinical Performance, First Year Students

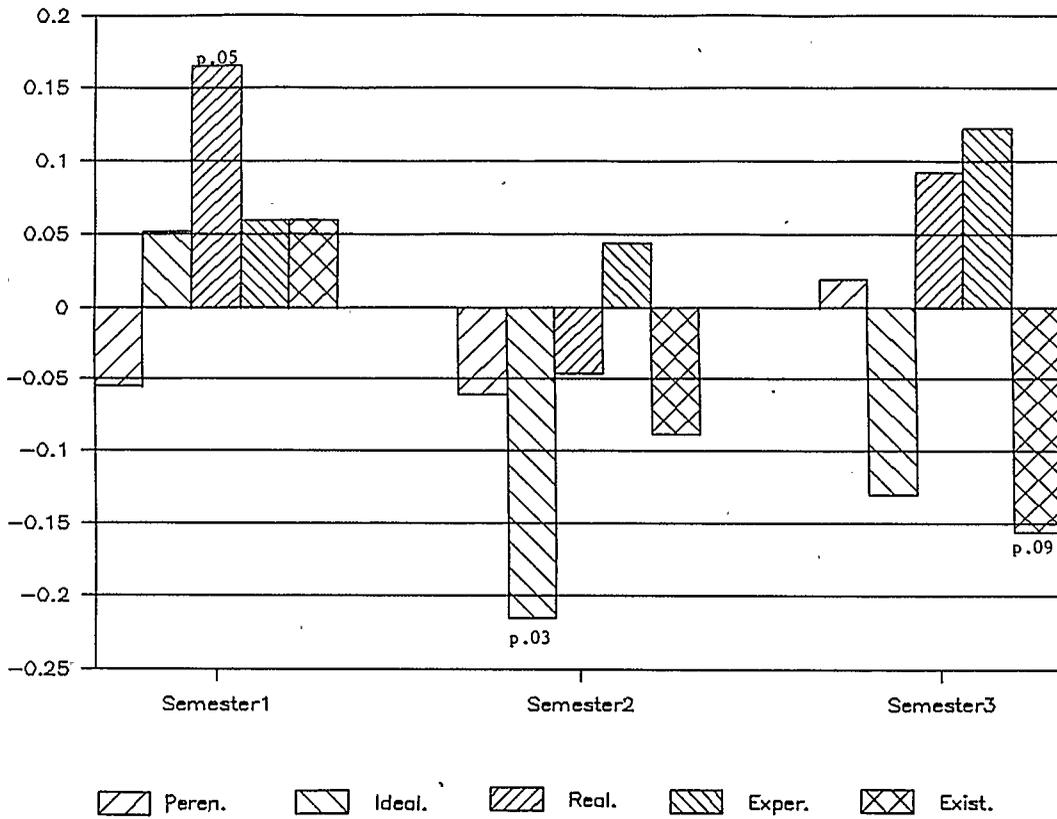
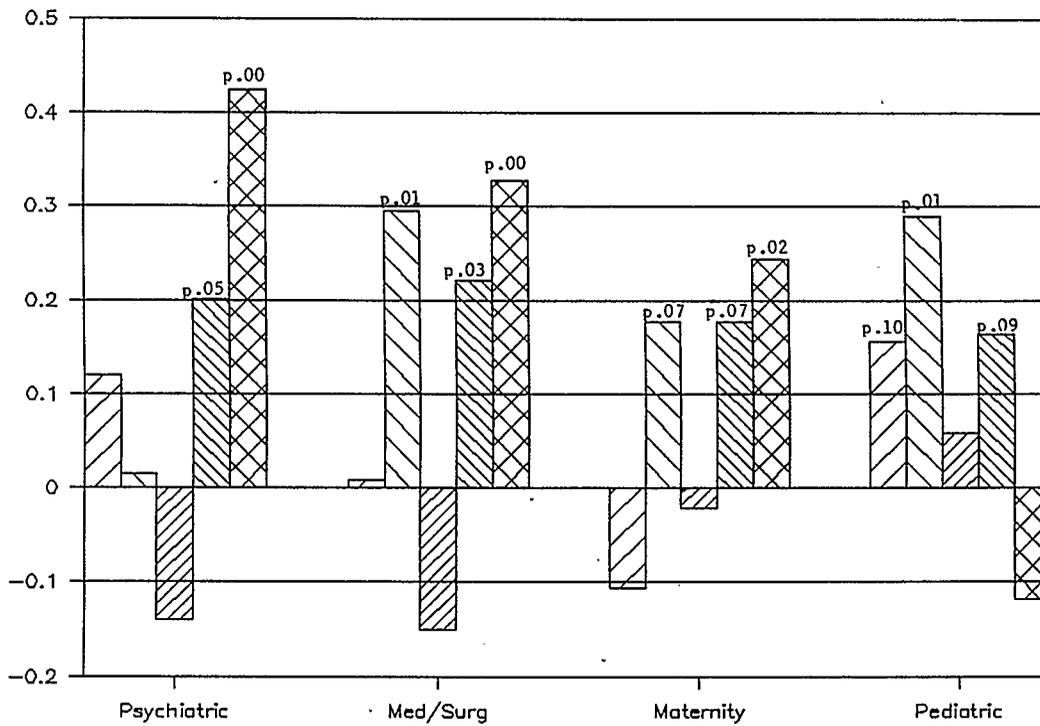


Figure 7: Correlations of Clinical Performance, Second Year Students



relation to the last philosophy, there were significant correlations .42 (p .00) between existentialism and psychiatric nursing, .33 (p .00) between existentialism and medical surgical nursing and .24 (p .02) between existentialism and maternity nursing. Most of the coefficients of the significant correlations were in the low range (.16 to .30) for the philosophies of perennialism, idealism, realism and experimentalism. However, one coefficient (.42) between existentialism and psychiatric nursing was of moderate significance, with the remaining two in existentialism being low in significance (.24 to .33).

There were interesting comparisons between first and second year students as indicated in Figure 6 and Figure 7. In perennialism, there were two negative correlations in regard to first and second semester clinical grades, with only one negative correlation with maternity nursing in second year. With respect to idealism there were two negative correlations in first year and none in second year. In realism there was one negative correlation in first year and three in second year. It should also be noted that there were positive correlations between experimentalism and all clinical grades, with all those in second year being significant. With existentialism there were two negative correlations in first year and only one negative correlation in second year. In review, there were more negative correlations (7) in first year as compared to second year (5), although there were more clinical courses in second year.

These results reflect more positive correlations with the precepts of experimentalism and existentialism, particularly with second year students. This would suggest that there was more problem solving and independent decision-making in the clinical course as opposed to the academic course. A review of the clinical evaluation forms used to measure success in the clinical area indicated that four of seven objectives in each of the clinical courses measured different aspects of the scientific process as applied in the nursing process. Windsor (1987) reported that students valued those instructor behaviors in the clinical area that reflected high expectations, wherein students were questioned and encouraged to problem solve.

Question 5

Is there a significant difference in educational beliefs when comparing faculty to students who persist in nursing as opposed to students who withdraw from the program?

An analysis of variance was computed for faculty, persisters and withdrawals. The results as outlined in Table 16 indicate that there was a significant difference in perennialism between faculty and those first year students who withdrew from the program. These differences are graphically portrayed in Figure 8. The mean and standard deviation for withdrawals was significantly higher (M

Table 16

Analysis of Variance
Faculty, Persisters and Withdrawals

Perennialism

	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Withdrawals	48	24.85	3.48	.50)	2.77	.066
Persisters	70	24.24	3.74	.45)		
Faculty	20	22.60	3.36	.75)		

Results of the Scheffé Test: Significant difference between
withdrawals and faculty

Idealism

	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Withdrawals	48	27.23	3.88	.56)	2.947	.056
Persisters	70	26.30	2.96	.35)		
Faculty	20	25.15	2.98	.67)		

Results of the Scheffé Test: Significant difference between
withdrawals and faculty

Realism

	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Withdrawals	48	29.60	3.12	.45)	1.341	.265
Persisters	70	28.73	3.08	.37)		
Faculty	20	29.40	1.96	.44)		

Experimentalism

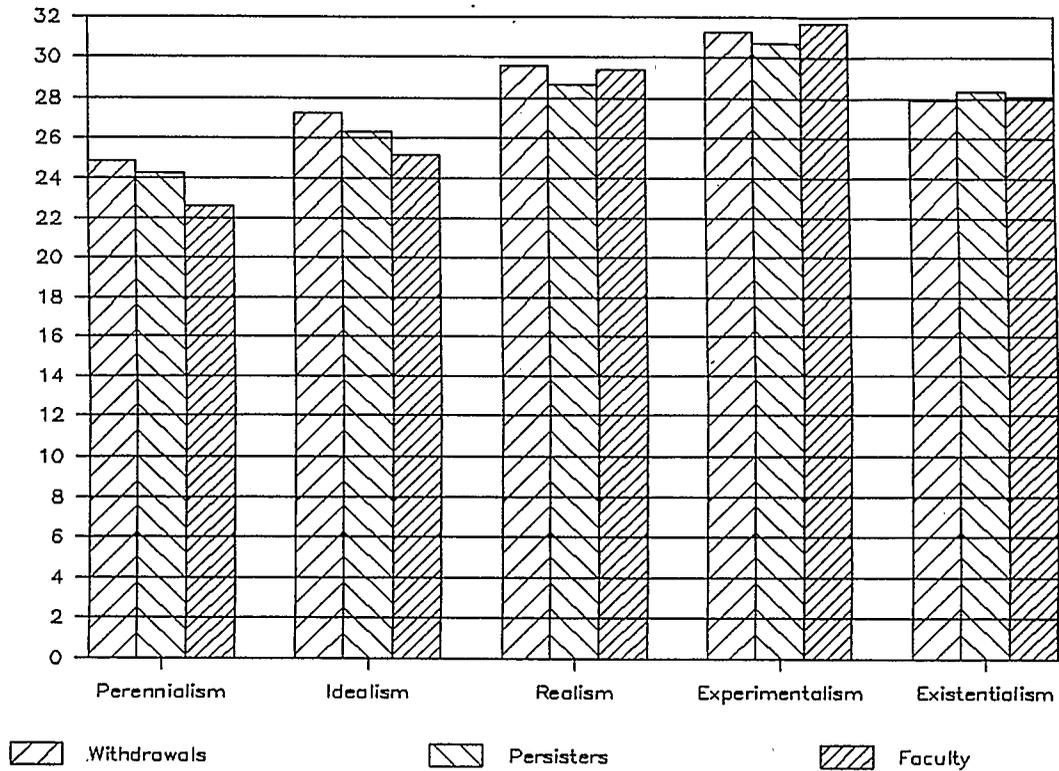
	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Withdrawals	48	31.25	3.21	.46)	.817	.444
Persisters	70	30.71	3.47	.41)		
Faculty	20	31.70	3.20	.72)		

Existentialism

	N	M	S.D.	Stand. Error	F Ratio	Sign. F
Withdrawals	48	27.94	3.45	.50)	.252	.778
Persisters	70	28.36	3.13	.37)		
Faculty	20	28.10	2.71	.61)		

Figure 8

Philosophic Profile
Withdrawals, Persisters and Faculty



24.85, S.D. 3.48), than that of faculty, (M 22.60 S.D. 3.36). In addition, in idealism there was a significant difference in mean and standard deviations between withdrawals (M 27.23 S.D. 3.88) and faculty (M 25.15 S.D. 2.98). There were no significant differences between persisters and withdrawals. However, there was a trend apparent between withdrawals and faculty which showed that the differences in scores appeared to decrease as they moved from perennialism to realism and then the scores of the withdrawals

dropped below faculty scores on experimentalism and existentialism. Crocker and Brodie (1974) found that students' views regarding expectations of nursing shifted markedly toward those of faculty as they progressed in the nursing program, with a significant difference between freshmen scores and seniors. This could be related to differences in beliefs, particularly with freshmen scores, as this group would consist of persisters as well as those students who will withdraw from the program. These findings indicate that students who withdrew from the program may not have been socialized as effectively as students who persisted.

Summary

This correlational study examined educational beliefs of nursing students and faculty and explored the relationship of students' beliefs to their academic and clinical performance. In comparing beliefs among first year students, second year students and faculty, there was no significant difference between student and faculty beliefs; however, there was a significant difference between first and second year students with respect to the philosophy of existentialism.

In examining the relationship between educational beliefs and academic performance the correlations indicated that there was only one significant correlation in first year; however there were twelve significant correlations in second year. There were two significant correlations between academic grades and each of the following

philosophies: perennialism, idealism, experimentalism (negative). There were three significant correlations between academic grades and realism as well as with existentialism (negative). Consequently, there is a relationship between academic grades and educational beliefs.

The summary of relationships between educational beliefs and clinical performance showed that there were two significant correlations in first year and eleven significant correlations in second year: one with perennialism, three with idealism, four with experimentalism and three with existentialism. Consequently, there is a relationship between educational beliefs and nursing clinical grades.

Finally, the differences in educational beliefs among persisters, withdrawals and faculty were explored. The analysis of variance indicated that there was a significant difference in educational beliefs between students who withdrew in the first year of the nursing program and faculty, in the philosophies of perennialism and idealism. There were no significant differences between persisters and withdrawals.

CHAPTER 5

SUMMARY, DISCUSSION AND IMPLICATIONS

Summary

This exploratory study investigated the nature of nursing students in a college diploma nursing program and the relationship of educational beliefs to academic and clinical performance. In addition, congruency of educational beliefs between faculty and students was explored as it relates to students' decisions to persist in or withdraw from the nursing program.

Specifically, the study was designed to answer the following questions:

1. What are the demographic characteristics of nursing students in a diploma nursing program?
2. Is there a significant difference in educational beliefs among first year nursing students, second year nursing students and faculty?
3. Is there a significant relationship between students' educational beliefs and academic performance in a diploma nursing program?
4. Is there a significant relationship between students' educational beliefs and clinical performance in a diploma nursing program?

5. Is there a significant difference in educational beliefs when comparing faculty to students who persist in nursing and to students who withdraw from the program?

The subjects in this investigation involved first year nursing students (N=118) whose academic and clinical progress was monitored over the two years, second year nursing students (N=70) and nursing faculty (N=20). Three contacts were made with the students to facilitate instrument administration, interviews and follow-up visits. At the follow-up visit when students were informed that their academic and clinical grades would be accessed, five first year students withdrew from the study (N=113).

The instrument used to collect data in this investigation was comprised of a demographic questionnaire (Appendix C) and a belief opinionnaire, the Philosophy Preference Assessment (Appendix B). The Philosophy Preference Assessment consisted of forty (40) belief statements describing the essential elements of the five educational philosophies: perennialism, idealism, realism, experimentalism and existentialism. Subjects were requested to respond to each statement on a five point Likert scale with the polarities of agree and disagree. A philosophic profile of the five philosophies was derived from the subject's responses to the forty statements.

Results and Discussion

Question 1:

The demographic data served to portray a "composite picture" of the nursing students in this college diploma program. Understandably, the results indicated that a large percent of the nursing students were female. With respect to "age", most of the students were "non-traditional college students" in the "24 years or older" subgroup, but a considerable proportion were in the "17-23 years" subgroup. Considering "entrance qualifications", almost half of the students had completed senior matriculation requirements prior to entry, and almost a third of the students had entered the program on "mature admission status". Over half of the students had "post-secondary education" prior to entering nursing. Half of the students had worked between one and five years, with the majority being involved in "work unrelated to nursing". When asked about "future academic plans", almost half of the first year students indicated that there was a "possibility" they would pursue further education; slightly more of the second year students reported this to be a "likelihood". These findings are congruent with those of Aldag and Rose (1980) who stated that students seeking entry into nursing have backgrounds rich in work experience and education.

Question 2:

The educational beliefs of first year students, second year students and faculty were examined to identify significant differences. The Philosophy Preference Assessment was used to obtain profiles of the five philosophies: perennialism, idealism, realism, experimentalism and existentialism (Table 12; Figure 3). The aggregate philosophic profiles for the three constituent groups, first and second year nursing students and faculty, revealed a preference for the philosophy of experimentalism. Their mean scores were as follows: faculty, 31.7; first year students, 30.9 and second year students, 31.1. These findings were similar to those of Wiles and Bondi (1979) who found experimentalism to be the philosophy of highest preference. In this investigation realism was the second preference for first year students (M 29.1) and faculty (M 29.4), whereas existentialism was the second preference for second year students (M 29.5). With second year students, the group mean for existentialism was higher (M 29.5) with a lower standard deviation (2.51) than for first year students (M-28.2, S.D.-3.3) and faculty (M-28.1, S.D.-2.7). The philosophic profile results also indicated that all three groups rated the statements on perennialism as the least "agreeable", with the faculty mean score the lowest of all three groups (Faculty M-22.6; Year 1 M-24.5; Year 2 M-23.7).

Analysis of variance was then conducted to identify the significance of the differences. There was a significant difference (F ratio 2.41; p .09) in the philosophy of perennialism. However,

when the Scheffé test was conducted, this conservative test did not identify intergroup differences significant at the .10 level. There was a significant difference between first and second year nursing students with respect to the philosophy of existentialism (F ratio 4.72; p .01). Intergroup differences in existentialism could be further noted by way of item analysis of responses to statements on existentialism (Appendix E). Second year students had higher mean scores on the items pertaining to: students' determining their own rules, effective learning being non-structured, effective learning taking place in a changing environment, and schools existing to promote self awareness. This appears to coincide with Dalme's (1983) finding that senior students felt they had more control of the socialization process. It is also of interest to note that during the administration of the instrument the researcher was approached by a faculty member expressing concern about some of the second year students, particularly their evident "resistance to rules" and "problems involving standards of conduct". This encounter provides a concrete indication of the connection between student data on the instrument and faculty perceptions of action tendencies among the second year students. At this time, nursing faculty members were considering inclusion of new rules to contend with these developments. However, had faculty been aware of the philosophic profiles of second year students, particularly their strong leaning towards existentialism, alternate approaches to resolving these differences may have been pursued.

Although not of statistical significance, there were other interesting differences evident from the data. The least variance occurred with respect to the philosophies of realism and experimentalism. The most variance occurred in the philosophies at either end of the spectrum: perennialism and existentialism with faculty scoring the lowest, but not significantly lower according to the Scheffé test. This suggests that the agents of socialization tend to have lower preferences for those philosophies at either end of the spectrum. It is also interesting to note that second year students were the lowest in the philosophy of realism. In comparison to the pilot study (Figure 1), the group of second year students in this investigation (Table 12, Figure 3) differed from faculty, particularly in realism and existentialism. Those students in the pilot study had a very similar profile to faculty with experimentalism being the highest and realism being a close second in terms of preference. The students in the pilot study completed the instrument just prior to graduation; whereas, students in this investigation completed the instrument at the beginning of the second year in nursing. According to Crocker and Brodie (1974) as the student progresses through the program there is a shift in beliefs towards those of faculty. It appears that this was the case in the pilot study, but that the second year students in this investigation were more experimentalist-existentialist in orientation, as opposed to experimentalist-realist as was the case with the pilot study second year students. It could be that by the

end. of the second year, the students may have modified their views to be more congruent with faculty.

Question 3:

To determine the significance of the relationship between educational beliefs and academic performance, Pearson product moment correlations were computed. The results in Table 14 indicated that there was only one significant correlation, a negative one, between first year academic grades and the philosophy of idealism. However, in the second year there were twelve significant correlations between educational beliefs and academic performance: two positive correlations in perennialism (psychiatric nursing and pediatric nursing); two correlations in idealism, a positive one with medical surgical nursing and a negative one with maternity nursing); and three positive correlations in realism (psychiatric nursing, medical surgical nursing and pediatric nursing). There were also two negative correlations in experimentalism (psychiatric nursing and maternity nursing) as well as three negative correlations in existentialism (psychiatric nursing, maternity nursing and pediatric nursing).

It is of interest to note that although the Philosophy Preference Assessment was administered in September of the first year, only one significant correlation was evident in that year. Considering the number of correlations done, this could be a chance finding; however with second year students, the number of

significant findings was twelve. By the beginning of second year all withdrawals had left the program, so the significant correlations appeared in relation to the persisters. It appears that the positive correlations were evident with perennialism and realism. When considering the tenets of these philosophies, first with perennialism, there is an emphasis on memorization of information and accepting without question factual information. Although with realism there is more emphasis on comprehending the world in which we live, the student is primarily encouraged to accept the factual information as presented, and to organize it in a logical fashion. This would suggest that in the nursing theory courses, students whose philosophical beliefs are congruent with memorization and organization of content achieve higher academic grades. Those students, on the other hand that have high experimentalist and existentialist beliefs have significant negative correlations to the nursing theory grades. This would suggest that there is less emphasis on problem solving and individualizing of learning in the theory courses.

In nursing, there has been a dilemma regarding the depth and breadth of theory that the student requires to become a safe practitioner, and this has resulted in a tendency to provide a broad theoretical basis. Also the technological advances in medical science have expanded the knowledge dimension in nursing. Because of this increased depth and breadth, the volume of theoretical content has markedly increased. The results of this investigation

may indicate that the most effective way students can cope with the volume of material is by memorization; therefore, those students who subscribe to this learning mode would likely achieve higher academic grades. The findings by Bello (1977) and Seither (1974) indicated that students' reading and comprehension scores are positively related to academic success in nursing. This could also reflect the need for the student to be able to organize and comprehend a large volume of nursing content. Their ability to successfully achieve this could, in turn, be reflected in academic grades. Although there were twelve significant correlations in second year, the correlation coefficients were small. This may be reflective of the narrow range of marks in the theory courses, with the passing grade being 65%.

Question 4:

The relationship of educational beliefs to clinical performance was determined by Pearson product moment correlations. The results in first year indicated that there were only three significant correlations of a possible fifteen between clinical grades and philosophies: semester 1 clinical grades and realism, semester 2 clinical grades and idealism, and semester 3 clinical grades and existentialism. There were eleven significant correlations with second year clinical grades: one with perennialism and pediatric nursing and three with idealism - medical surgical nursing, maternity nursing and pediatric nursing. There

were no significant correlations with respect to realism, but all were significant in relation to experimentalism - psychiatric nursing, medical surgical nursing, maternity nursing and pediatric nursing. There were three significant correlations in existentialism - psychiatric nursing, medical surgical nursing and pediatric nursing. In summary, all significant correlations in the second year were positive, with three in idealism, four in experimentalism and three in existentialism.

The positive correlations with respect to idealism could reflect the importance of role modelling in nursing as described by Watson (1986) and Morris and Grassi-Russo (1979). High ideals and expectations would be reflective of the tenets of idealism. Windsor (1987) found that students expected their instructors to demonstrate professional behaviors in the areas of confidence, thoroughness, neatness, respect, supportiveness and high student expectations. These findings are suggestive of the tenets of idealism. With respect to experimentalism, the findings indicated that all four clinical courses in second year were positively correlated to this philosophy. Upon examination of the tool used for clinical grade determination, four out of six objectives relate to the nursing process, wherein problem solving is used as a basis for administration of care. It is not surprising that those students who were highly oriented to experimentalism would achieve higher clinically, because each patient situation encountered is unique and students must be able to identify and resolve individual problems.

Those students oriented to an experimentalist mode of problem solving where the emphasis is on involving the client and others in the solution would probably find the uniqueness of each clinical situation challenging and satisfying. Those students who have high existentialist profiles would also find the clinical experience challenging, because it is more individual than the theory classes, and they can take more responsibility to seek out challenging experiences and become more participative in their own learning.

Question 5:

This question examined the differences in educational beliefs among faculty, students who persisted in nursing and those who withdrew from the nursing program. There were forty-eight (48) students who withdrew from the program by the end of first year. An analysis of variance (Table 16) was conducted to determine the significance of the differences among faculty, persisters and withdrawals. According to the results of the ANOVA, there were two significant differences, related to perennialism and idealism. Further analysis using the Scheffé test indicated that both significant differences were between faculty and withdrawals in perennialism and idealism. There were no significant differences between persisters and faculty, nor between persisters and withdrawals.

These results indicate that, although withdrawals do not differ significantly from persisters, there are significant

differences in educational beliefs between faculty and withdrawals with respect to two of the more conservative philosophies. In relation to perennialism; faculty scored significantly lower (M 22.6, S.D. 3.36) than withdrawals (M 24.85, S.D. 3.48). It appears that those students who are traditional in educational orientation may have difficulty successfully integrating into nursing. This could be related to their incongruence with faculty.

There was also a significant difference in idealism between faculty (M 25.15, S.D. 2.98) and withdrawals (M 27.23, S.D. 3.88). Again withdrawals were significantly higher than faculty. Referring back to the correlations in Table 14, there was one significant negative correlation between idealism and academic grades, and a second significant negative correlation to the second semester clinical grade (Table 15) in first year. Again the incongruence between faculty and withdrawals may have been a factor in students' decisions to leave nursing. It is also of interest to note the other differences, although not significant, among withdrawals, persisters and faculty. Withdrawals have the highest means for the philosophies of perennialism, idealism and realism; then are lower than faculty on experimentalism and lowest of all three groups on existentialism. The importance of belief congruency cannot be discounted. Majasan (1972) examined beliefs regarding the nature of psychology and compared the beliefs of students and faculty in seventeen psychology classes. In examining the congruency of beliefs and effects upon performance, he found that students'

achievement scores decreased as the differences between faculty-student belief scores increased.

Implications

The results indicated that there were very few significant correlations between educational beliefs and academic and clinical performance in the first year of the program. The first and second semesters appear to be critical decision-making times for students as reflected by the number of students who withdrew from the program. The student number was 118 initially, yet by the end of semester 3 there were only 77 students left, with the highest attrition in the first and second semesters of the program. These first two semesters would involve role adjustment and socialization, or, as Feldman (1976) has identified, anticipatory socialization and accomodation.

It appears that by the end of first year, as students withdraw from the program the persisters in second year reflect more significant correlations between educational beliefs and academic grades, as well as between educational beliefs and clinical grades. The twelve significant correlations with academic grades correspond positively with the philosophies of perennialism and realism, with negative correlations evident with experimentalism and existentialism. On the other hand, with clinical grades, there were eleven significant positive correlations with respect to the philosophies of idealism, experimentalism, and existentialism. This

would suggest that for the theory courses those students with perennialist or realist orientations, geared to memorization and organization of factual information, will achieve higher academic grades, whereas in the clinical area those students more highly oriented to problem solving, role modelling, and involvement of the learner will achieve higher clinical grades.

The difference in positive significant correlations between academic performance and clinical performance suggests that a dichotomy exists between theory and practice. Those students who have high perennialist-realist profiles perform well in the nursing theory courses, whereas those students who have high idealist-experimentalist-existentialist profiles perform well in the clinical courses. This may explain why some students achieve high academic grades, but are not able to apply the learning in the clinical area. This could also indicate why some students have low academic grades, yet are able to perform well clinically. This dichotomy between theory and practice has implications for curriculum decision-making and teaching strategies. Nursing faculty need to examine the structure and mode of teaching in the nursing theory and clinical courses to identify ways of enhancing effectiveness of theoretical learning and its application in the clinical area. Windsor (1987) stated that although classroom learning provides the foundation, in the clinical area students must combine the cognitive, psychological, and affective skills while still maintaining client safety.

Although there were many significant correlations between educational beliefs and the nursing theory as well as clinical courses, many of the correlation coefficients were low. It is interesting to note that Murphy et al. (1985) in their examination of school effectiveness studies, report that "affective components" (beliefs, expectations and school climates) are less likely to impact significantly upon student learning than cognitive components (tightly coupled curriculum, direct instruction and opportunities to learn). Murphy et al. (1985) caution that although affective components may not succeed in effecting measurable differences, they are important influences in learning outcomes. Consequently, it is interesting to note that there were several significant correlations between educational beliefs and academic and clinical performance, although as Murphy et al. indicate, the coefficients were low.

Implications for Practice

The implications that arise from this study relate to practical aspects of nursing education in two major areas: the admission process and the instructional processes. The admission process at this particular college diploma nursing program involves selection of prospective students based on cognitive factors (entrance qualifications, reading and comprehension scores, and critical thinking scores). Present admission procedures need to be scrutinized and deliberations conducted relative to inclusion of other factors in the admission process. Cognitive factors, alone, are not powerful enough to carry the weight of decision-making in

the admission process; consideration also needs to be given to affective components that may provide additional information.

In the admission process, the use of a belief assessment instrument could provide contemporary data of an affective nature to supplement the cognitive data being used. At present, it is not feasible to interview 350-400 applicants for the 120 available positions in the nursing program. This instrument could assist in assessing the affective component. The examination of students' beliefs prior to admission would provide "cueing" assistance to inform decisions. This information would be current as opposed to past records of achievement. The writer could see the use of such an instrument as an "alerting indicator" rather than as a criterion for final decision-making.

Nursing education is grounded in the principles of inquiry and problem solving, especially as it relates to clinical learning in the hospital setting. In fact, the problem solving process is the fundamental component of evaluation in clinical experience. The high experimentalist leanings from the faculty profile also tend to corroborate this notion. Considering the grounding of the program in experimentalism and the high preference of faculty for the experimentalist statements, students with a high preference for experimentalism would be more in alignment with the demands of the program, as well as with faculty expectations. If the belief instrument were used to alert faculty to students with low experimentalist profiles, these students could receive special

assistance to enhance problem solving skills and enable a better "fit" into the program. Such experiences as problem solving through a series of patient problems as well as simulated clinical situations could assist the student to develop these skills. Ideally, this would be more effective if students sought this assistance prior to entry into the program, or in the early stages of the program.

In addition to considering beliefs as a diagnostic factor in the appraisal of incoming students, this information could also be very helpful in assessing students in process. This presupposes that students and teachers would be willing to share this information. The information related to beliefs would have to be used with discretion and care in a clarifying or "diagnostic" manner and not for predictive purposes. Used for predictive purposes, one could inadvertently invoke the "self fulfilling prophecy" with a detrimental consequence, particularly for the student. In addition to providing valuable contemporary information on students, faculty completion of the instrument would also be very useful. The writer could see the profile results used as a basis for discussing expectations and for providing a more refined way of clarifying and checking differences. Ideally this would be done on a "one to one" basis where, the student and faculty member would sit down and clarify expectations. This would be particularly valuable in the clinical nursing courses, where student-faculty clarity of expectations is an important element in assisting the student to

adjust to the demands of clinical learning. Used in this manner, it would provide a framework for discussion as well as serve as a valuable diagnostic measure for both teacher and learner alike.

The critical issue of congruency and its influence on achievement has to be examined on an individual faculty-student basis. It is important to consider that underlying sources of conflict take much time and energy from the learning process. The individual profiles hold the key to the issue of congruency. The Philosophy Preference Assessment could provide a basis for initiation of discussion regarding differences in profiles and an opportunity for faculty to consider the implications these may have upon the interactions of faculty and students.

Another important issue that needs to be addressed is that of student attrition. The attrition rate in this particular diploma nursing program, as in most nursing programs, is 30-35%. This represents a considerable loss of valuable human resources, as well as a loss of critical time on the part of nursing students. Students who have difficulty adjusting to the demands of the academic system also require much time and energy on the part of faculty. Considering the restraints that are affecting post-secondary institutions at present, and the substantial loss of human resources through attrition, all elements relating to attrition need to be investigated to improve decision-making and monitoring capabilities. The use of a belief instrument could provide

information on the affective domain that could assist in more successful selection and integration of students.

In addition to assisting students, teachers' examination of their own profiles would provide valuable information related to philosophic stances. These comparisons would assist in identifying how individual belief profiles differed from that of the aggregate faculty profiles and the significance and implications of these differences. The study of faculty beliefs would also be valuable in curriculum planning as well as in the examination of different teaching-learning strategies. In addition, aggregate profiles of student groups would inform faculty of the predominance of beliefs that are evident from the profiles. For example, the second year students had a high existentialist leaning in their profiles suggesting that these students would probably desire more input into the instructional processes and more collaboration when new decisions are being made. This desire for more input into curriculum deliberations would also be in keeping with the tenets of experimentalism. Such knowledge about predominant leanings could assist in more informed decision making.

Four main areas related to practice have been addressed in considering the implications of this study to nursing. First, the Philosophy Preference Assessment could be used to provide additional information to enhance present admission selection procedures. Second, the instrument could also assist instructors and students in clarifying beliefs and expectations, as well as providing a basis

for discussion of differences. In this use, it functions as an "alerting" or "cueing device" and not as a predictive tool. Third, it could provide assistance in identifying those factors that may enhance integration into nursing education. Fourth, it could assist faculty in decisions relating to curriculum and teaching-learning strategies.

Implications for Research

In considering the implications for research, the following areas need to be explored in more depth:

1. There is a need for further study related to the affective components, in particular educational beliefs, and their relationship to achievement. This would assist in examining more completely those factors related to academic and social integration.
2. More research related to the reliability and validity of the philosophic profile instrument would be important, along with developing other reliable and useful means through which beliefs may be studied.
3. Examination of the relationship of beliefs to demographic characteristics would be very useful, with a further comparison of the influence of these characteristics upon academic and clinical achievement.
4. Additional research needs to be conducted considering the influence of beliefs upon students' academic and clinical

performance in nursing, with the instrument being administered at the beginning of the program and near the end to assess changes that may have occurred. In addition, a further study of the congruency of beliefs between faculty and students, in the beginning and near the end of the program would be helpful for more specific examination of individual teacher-student profiles.

5. In addition, further qualitative or observational studies that examine actual philosophic stances of instructors and students and their actions in classroom and clinical settings would be very informative.
6. Finally, more examination is needed to assess affective components in relation to persistence and withdrawal in nursing.

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Appendices

Appendix A

Philosophy Preference Assessment
Wiles and Bondi (1979)

Philosophy Preference Assessment (Wiles and Bondi*, 1979)

Directions: For each item below, respond according to the strength of your belief. A one (1) indicates strong disagreement, a five (5) strong agreement. Use a separate sheet of paper.

1. Ideal teachers are constant questioners.
2. Schools exist for societal improvement.
3. Teaching should center around the inquiry technique.
4. Demonstration and recitation are essential components for learning.
5. Students should always be permitted to determine their own rules in the educational process.
6. Reality is spiritual and rational.
7. Curriculum should be based on the laws of natural science.
8. The teacher should be a strong authority figure in the classroom.
9. The student is a receiver of knowledge.
10. Ideal teachers interpret knowledge.
11. Lecture-discussion is the most effective teaching technique.
12. Institutions should seek avenues towards self-improvement through an orderly process.
13. Schools are obligated to teach moral truths.
14. School programs should focus on social problems and issues.
15. Institutions exist to preserve and strengthen spiritual and social values.
16. Subjective opinion reveals truth.
17. Teachers are seen as facilitators of learning.
18. Schools should be educational "smorgasbords".

19. Memorization is the key to process skills.
20. Reality consists of objects.
21. Schools exist to foster the intellectual process.
22. Schools foster an orderly means for change.
23. There are essential skills everyone must learn.
24. Teaching by subject area is the most effective approach.
25. Students should play an active part in program design and evaluation.
26. A functioning member of society follows rules of conduct.
27. Reality is rational.
28. Schools should reflect the society they serve.
29. The teacher should set an example for the students.
30. The most effective learning does not take place in a highly structured, strictly disciplined environment.
31. The curriculum should be based on unchanging spiritual truths.
32. The most effective learning is nonstructured.
33. Truth is a constant expressed through ideas.
34. Drill and factual knowledge are important components of any learning environment.
35. Societal consensus determines morality.
36. Knowledge is gained primarily through the senses.
37. There are essential pieces of knowledge that everyone should know.
38. The school exists to facilitate self-awareness.
39. Change is an ever-present process.

40. Truths are best taught through the inquiry process.

*Reprinted with permission of publisher, Charles E. Merrill Publishing Company. Wiles and Bondi expressed appreciation to Bill Suggs and Sidney Mitchell for their suggestion of a similar assessment instrument.

Appendix B

Philosophy Preference Assessment (Revised)

Philosophy Preference Assessment (Revised)

Directions: Each item below identifies a belief statement. Read each statement and respond according to the strength of your belief. There are no correct or incorrect answers.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
A	B	C	D	E

1. Teachers should continually question the things around them.
2. Schools exist for societal improvement.
3. Teaching should center around inquiry and problem solving techniques.
4. Display and demonstration are effective teaching procedures.
5. Students should determine their own rules for the educational process.
6. Reality is spiritual and rational.
7. Curriculum should be based on the laws of nature.
8. The teacher should be the authority figure in the classroom.
9. The student should master the wisdom of the ages.
10. Teachers should interpret knowledge by reason and impart this to the learner.
11. Lecture-discussion is the most effective teaching technique.
12. Institutions should seek avenues towards self-improvement through an orderly process.
13. Schools are obligated to teach moral truths.

14. School programs should focus on social problems and issues.
15. Institutions exist to preserve and strengthen spiritual and social values.
16. Truth is individually determined.
17. Teachers are seen as facilitators of learning.
18. Schools should provide a wide variety of learning experiences.
19. The key way to develop process skills is through memorization.
20. Reality consists of a world of objects and events.
21. Schools exist to pass on important ideas.
22. Schools should foster an orderly means of change.
23. There are essential facts about reality that everyone should learn.
24. The study of subjects for the mind is an important part of the curriculum.
25. Students should play an active role in program design and evaluation.
26. A functioning member of society follows rules of conduct.
27. Reality is rational.
28. Schools should reflect the society they serve.
29. The teacher should set an example for the students.
30. The most effective learning takes place in a changing environment.
31. The curriculum should be based on unchanging spiritual truths.
32. The most effective learning is nonstructured.
33. Truth is a constant expressed through ideas.

34. Knowledge should be taught through disciplined drill and behavior control.
35. Societal consensus determines morality.
36. The gaining of knowledge is a personal subjective choice.
37. There are universal truths that everyone should know.
38. The school exists to facilitate self-awareness.
39. Change is an ever-present process.
40. Learning is effective when there is active involvement in the discovery of the world.

* The revised profile was adapted from the philosophic profile of Wiles and Bondi (Appendix A).

Philosophy Preference Assessment

Arranged

According to the Five Philosophies

The following is a rearrangement of the items in the Philosophy Preference Assessment according to each philosophy. The original numbers that were used in the instrument are retained in this listing.

Perennialism

6. Reality is spiritual and rational.
8. The teacher should be the authority figure in the classroom.
10. Teachers should interpret knowledge by reason and impart this to the learner.
13. Schools are obligated to teach moral truths.
15. Institutions exist to preserve and strengthen spiritual and social values.
31. The curriculum should be based on unchanging spiritual truths.
34. Knowledge should be taught through disciplined drill and behavior control.
37. There are universal truths that everyone should know.

Idealism

9. The student should master the wisdom of the ages.
11. Lecture-discussion is the most effective teaching technique.
19. The key way to develop process skills is through memorization.
21. Schools exist to pass on important ideas.

24. The study of subjects for the mind is an important part of the curriculum.
27. Reality is rational.
29. The teacher should set an example for the students.
33. Truth is a constant expressed through ideas.

Realism

4. Display and demonstration are effective teaching procedures.
7. Curriculum should be based on the laws of nature.
12. Institutions should seek avenues towards self-improvement through an orderly process.
20. Reality consists of a world of objects and events.
22. Schools should foster an orderly means of change.
23. There are essential facts about reality that everyone should learn.
26. A functioning member of society follows rules of conduct.
28. Schools should reflect the society they serve.

Experimentalism

2. Schools exist for societal improvement.
3. Teaching should center around inquiry and problem solving techniques.
14. School programs should focus on social problems and issues.
17. Teachers are seen as facilitators of learning.
25. Students should play an active role in program design and evaluation.
35. Societal consensus determines morality.

39. Change is an ever-present process.
40. Learning is effective when there is active involvement in the discovery of the world.

Existentialism

1. Teachers should continually question the things around them.
5. Students should determine their own rules for the educational process.
16. Truth is individually determined.
18. Schools should provide a wide variety of learning experiences.
30. The most effective learning takes place in a changing environment.
32. The most effective learning is nonstructured.
36. The gaining of knowledge is a personal subjective choice.
38. The school exists to facilitate self-awareness.

Appendix C
Demographic Questionnaire
Students

Student Demographic Questionnaire

To start:

Fill in your identification number on the answer sheet in the corresponding spaces on the upper right hand side of the sheet. Insert the answers to the following:

- I. Sex
 1. female
 2. male

- II. Age
 3. 17 yrs. - 23 yrs.
 4. 24 yrs. - 29 yrs.
 5. 30 yrs. - 35 yrs.
 6. 36 yrs or over

- III. State:
 1. married
 2. single
 3. other

- IV. Do you have any children?
 1. yes
 2. no

- V. Entrance Qualifications
 1. high school diploma
 2. senior matriculation
 3. mature admission requirement

- VI. Post Secondary Education
 0. none
 1. college - 1 yr.
 2. college diploma
 3. university - 1-3 yrs.
 4. university degree
 5. nurses' aide training
 6. other

- VII. Previous work experience
 0. none
 1. work experience unrelated to nursing
 2. work experience related to nursing

VIII. Number of years of work experience

1. 1 - 5 yrs.
2. 6 - 10 yrs.
3. 11 and above.

IX. Future academic plans after your nursing diploma

0. none at present
1. possibility of further education in future
2. definite or likely to go onto further education

Appendix D

Revisions of the
Philosophy Preference Assessment

Modified Philosophy Preference Assessment

Revisions and Reasons

The Philosophy Preference Assessment was modified from the original Wiles and Bondi (1979) instrument. The following is a list of the original items, the modified ones, the philosophies they represent, and the reason for the change.

Item Revisions:

Original 1. Ideal teachers are constant questioners.
 Modified 1. Teachers should continually question the world around them.

Philosophy: Existentialism

Reason: This item was modified because the term 'constant' made this item too absolute. In the modified version the nature of the question is similar but it not as absolute.

Original 3. Teaching should center around the inquiry technique.

Modified 3. Teaching should center around inquiry and problem solving techniques

Philosophy: Experimentalism

Reason: The term problem solving techniques is the common terminology used. The intent of the question is essentially the same.

Original 4. Demonstration and recitation are essential components for learning.

Modified 4. Display and demonstration are effective teaching procedures.

Philosophy: Realism

Reason: According to Wiles and Bondi (1979) display is a teaching method used by realists. It is more commonly used than recitation. the item also

changed the emphasis from components of learning to teaching methods.

Original 5. Students should always be permitted to determine their own rules in the educational process.

Modified 5. Students should determine their own rules for the educational process.

Philosophy: Existentialism

Reason: This item was modified because of the 'always' being such an absolute term.

Original 7. Curriculum should be based on the laws of natural science.

Revised 7. Curriculum should be based on the law of nature.

Philosophy: Realism

Reason: Slight modification of wording to stress the importance of the laws of nature determining the basis of the philosophy (Morris and Pai, 1976).

Original 8. The teacher should be a strong authority figure in the classroom.

Revised 8. The teacher should be the authority figure in the classroom.

Philosophy: Perennialism

Reason: Slight modification of the item to stress the importance of the teacher as the person in authority (Brameld, 1971).

Original 9. The student is a receiver of knowledge.

Revised 9. The student should master the wisdom of the ages.

Philosophy: Idealism

Reason: The revised item emphasized a very important basis of idealism, learning the accumulated wisdom to develop the mind (Wiles and Bondi, 1979; Morris and Pai, 1976).

Original 10. Ideal teachers interpret knowledge.
 Revised 10. Teachers should interpret knowledge by reason
 and impart this to the learner.

Philosophy: Perennialism

Reason: The modified item appears to more clearly
 distinguish this philosophy as perennialism
 (Wiles and Bondi, 1979).

Original 16. Subjective opinion reveals truth.
 Revised 16. Truth is individually determined.

Philosophy: Existentialism

Reason: This is the basic tenet of this philosophy
 according to Wiles and Bondi (1979) and Morris
 and Pai (1976).

Original 18. Schools should be educational "smorgasbords".
 Revised 18. Schools should provide a wide variety of
 learning experiences.

Philosophy: Existentialism

Reason: Originally there was some question about the
 meaning of "smorgasbord" from the initial item
 appraisals. It was decided to maintain the
 breadth of experiences, but to utilize a
 different term.

Original 19. Memorization is the key to process skills.
 Revised 19. The key way to develop process skills is through
 memorization.

Philosophy: Idealism

Reason: Basically the item is unchanged, but the wording
 was modified.

Original 20. Reality consists of objects.
 Revised 20. Reality consists of a world of objects and
 events.

Philosophy: Realism

Reason: The two ontological components of realism were included rather than just objects (Morris and Pai).

Original 21. Schools exist to foster the intellectual process.

Revised 21. Schools exist to pass on important ideas.

Philosophy: Idealism

Reason: This statement appeared to more clearly designate the idealist philosophy (Wiles and Bondi, 1979; McClaren, 1983).

Original 23. There are essential skills everyone must learn.

Revised 23. There are essential facts about reality that everyone should learn.

Philosophy: Realism

Reason: The modified statement appeared to more clearly state the beliefs related to content of learning (Morris and Pai, 1976; Brameld, 1971).

Original 24. Teaching by subject area is the most effective approach.

Revised 24. The study of subjects for the mind is an important part of the curriculum.

Philosophy: Idealism

Reason: This item was revised to more clearly depict the idealists' belief that development of the mind is the most important aspect of education (Morris and Pai, 1976; Brameld, 1971)

Original 30. The most effective learning does not take place in a highly structured, strictly disciplined environment.

Revised 30. The most effective learning takes place in a changing environment.

Philosophy: Existentialism

Reason: This statement was reworded in the positive context rather than being expressed as a negative.

Original 34. Drill and factual knowledge are important components of any learning environment.

Revised 34. Knowledge should be taught through disciplined drill and behavior control.

Philosophy: Perennialism

Reason: This item was changed to identify teaching methods of perennialism (Wiles and Bondi, 1979; Brameld, 1971)

Original 36. Knowledge is gained primarily through the senses.

Revised 36. The gaining of knowledge is a personal subjective choice.

Philosophy: Existentialism

Reason: This item as changed appeared to more clearly distinguish the philosophy of existentialism.

Original 37. There are essential pieces of knowledge that everyone should know.

Revised 37. There are universal truths that everyone should know.

Philosophy: Perennialism

Reason: This change focuses on the belief in perennialism that there are overarching truths that should be the essence of what is taught (Brameld, 1971; Wiles and Bondi, 1979).

Original 40. Truths are best taught through the inquiry process.

Revised 40. Learning is effective when there is active involvement in the discovery of the world.

Philosophy: Experimentalism

Reason: In this revised item, two qualities of the experimentalism are considered (Morris and Pai, 1976; Wiles and Bondi, 1979).

APPENDIX E

Philosophy Preference Assessment
Item Analysis of Belief Statements

Philosophy Preference Assessment

Item Analysis

Each of the forty philosophic items was analyzed to determine the mean and standard deviation, as well as to examine the item distribution of responses. The results are presented below:

Key:

No. - profile item no. S.D. Standard Deviation

P - Philosophy	Item Distribution
1. Perennialism	A Strongly Disagree
2. Idealism	B Disagree
3. Realism	C Uncertain
4. Experimentalism	D Agree
5. Existentialism	E Strongly Agree

Group -

First year nursing students - Year 1

Second year nursing students - Year 2

Faculty - Fac.

Philosophy Preference Assessment

Item Analysis: Year 1 students, Year 2 Students and Faculty

No.	P	Group	Mean	S.D.	Item Distribution									
					Frequencies					Percentages				
					A	B	C	D	E	A	B	C	D	E
1.	5	Year 1	3.9	0.9	0	11	19	60	28	0	9	16	51	24
		Year 2	3.8	1.0	3	6	2	39	15	4	9	10	56	21
		Fac.	4.5	0.5	0	0	0	10	10	0	0	0	50	50
2.	4	Year 1	3.7	0.9	2	12	13	77	14	2	10	11	65	12
		Year 2	3.8	0.9	2	6	8	42	12	3	9	11	60	17
		Fac.	3.8	1.0	1	2	0	14	3	5	10	0	70	15
3.	4	Year 1	3.8	0.8	0	9	23	68	18	0	8	20	58	15
		Year 2	3.9	0.7	3	12	45	10	0	4	17	64	14	0
		Fac.	4.1	1.2	0	1	1	10	8	0	5	5	50	40
4.	3	Year 1	4.5	0.7	1	2	1	50	64	1	2	1	42	54
		Year 2	4.4	0.8	1	2	1	33	33	1	3	1	47	47
		Fac.	4.2	0.5	0	0	1	14	5	0	0	5	70	25

No.	P	Group	Mean	S.D.	Item Distribution									
					Frequencies					Percentages				
					A	B	C	D	E	A	B	C	D	E
5.	5	Year 1	2.4	0.9	14	56	31	17	0	12	48	26	14	0
		Year 2	2.7	0.8	2	31	26	10	1	3	44	37	14	1
		Fac.	2.3	0.6	1	13	6	0	0	5	65	30	0	0
6.	1	Year 1	3.4	0.9	2	15	43	48	10	2	13	36	41	9
		Year 2	3.5	1.0	2	8	24	25	11	3	11	34	36	16
		Fac.	3.1	0.9	1	3	9	7	0	5	15	45	35	0
7.	3	Year 1	2.9	0.8	4	28	62	22	2	3	24	53	19	2
		Year 2	2.8	0.9	3	24	33	7	3	4	34	47	10	4
		Fac.	3.0	0.8	0	6	8	6	0	0	30	40	30	0
8.	1	Year 1	3.6	1.2	6	23	5	60	24	5	20	4	50	20
		Year 2	2.8	1.3	11	26	4	24	5	16	37	6	34	7
		Fac.	2.8	1.2	2	7	2	9	0	10	35	10	45	0
9.	2	Year 1	3.1	1.0	6	28	36	43	5	5	24	31	36	4
		Year 2	3.0	1.0	1	24	22	19	4	1	34	31	27	6
		Fac.	2.6	0.9	1	9	6	4	0	5	45	30	20	0
10.	1	Year 1	3.9	0.8	3	3	16	76	20	3	3	14	64	17
		Year 2	3.7	0.8	7	13	42	8	0	10	19	60	11	0
		Fac.	3.6	0.7	0	2	4	14	1	0	10	20	65	5
11.	2	Year 1	3.2	1.1	7	33	15	52	11	6	28	13	44	9
		Year 2	3.2	1.1	1	25	10	28	6	1	36	14	40	9
		Fac.	2.7	0.9	0	11	4	5	0	0	55	20	25	0
12.	3	Year 1	3.9	0.8	1	2	17	78	20	1	2	14	66	17
		Year 2	3.9	0.7	1	4	4	45	7	1	6	6	77	10
		Fac.	3.9	0.4	0	0	3	16	1	0	0	15	80	5
13.	1	Year 1	2.9	1.1	10	43	18	41	6	9	36	15	35	5
		Year 2	2.2	1.2	10	24	12	19	5	14	34	17	27	7
		Fac.	2.7	0.9	1	8	7	4	0	5	40	35	20	0
14.	4	Year 1	3.4	1.0	4	26	22	56	10	3	22	19	48	9
		Year 2	3.3	1.0	1	17	17	29	6	1	24	24	41	9
		Fac.	2.9	0.9	0	8	6	5	1	0	40	30	25	5
15.	1	Year 1	2.8	1.1	8	43	26	37	4	7	36	22	31	3
		Year 2	3.0	1.1	4	22	14	25	5	6	31	20	36	7
		Fac.	2.8	1.0	1	8	4	7	0	5	40	20	35	0

No.	P	Group	Mean	S.D.	Item Distribution									
					Frequencies					Percentages				
					A	B	C	D	E	A	B	C	D	E
16.	5	Year 1	3.8	1.1	5	17	7	58	31	4	14	6	49	26
		Year 2	3.8	1.0	0	3	12	45	10	0	4	17	64	14
		Fac.	3.4	1.0	1	4	2	12	1	5	20	10	60	5
17.	4	Year 1	4.1	0.6	0	5	3	85	25	0	4	3	72	21
		Year 2	4.2	0.6	1	2	1	33	33	1	3	1	47	47
		Fac.	4.8	0.4	0	0	0	5	15	0	0	0	25	75
18.	5	Year 1	4.6	0.7	1	2	1	34	80	1	2	1	29	68
		Year 2	4.6	0.6	2	31	26	10	1	3	44	37	12	1
		Fac.	4.6	0.6	0	0	1	5	14	0	0	5	25	70
19.	2	Year 1	2.4	1.1	24	54	14	22	4	20	46	12	19	3
		Year 2	2.2	.9	2	8	24	25	11	3	11	34	36	16
		Fac.	1.8	0.8	8	10	1	1	0	40	50	5	5	0
20.	3	Year 1	3.3	1.2	7	23	18	59	11	6	20	15	50	9
		Year 2	3.0	1.2	3	24	33	7	3	4	34	47	10	4
		Fac.	3.3	0.9	0	5	5	10	0	0	25	25	50	0
21.	2	Year 1	3.5	0.9	2	18	21	71	6	2	15	18	60	5
		Year 2	3.7	0.7	11	26	4	24	5	16	37	5	34	7
		Fac.	3.8	0.6	0	2	1	17	0	0	10	5	85	0
22.	3	Year 1	3.5	0.8	2	5	43	59	9	2	4	36	50	8
		Year 2	3.6	0.8	1	24	22	19	4	1	34	31	27	6
		Fac.	3.7	0.6	0	1	4	15	0	0	5	20	75	0
23.	3	Year 1	3.9	0.8	2	5	16	74	21	2	4	14	63	18
		Year 2	4.0	0.7	0	7	13	42	8	0	10	19	60	11
		Fac.	3.8	0.4	0	0	5	15	0	0	0	25	75	0
24.	2	Year 1	3.9	0.7	0	1	28	70	19	0	1	24	59	16
		Year 2	3.8	0.8	1	25	10	28	6	1	36	14	40	9
		Fac.	3.7	0.5	0	0	6	14	0	0	0	30	70	0
25.	4	Year 1	3.9	0.9	1	7	19	67	23	1	6	16	57	20
		Year 2	4.1	0.9	1	4	4	54	7	1	6	6	77	10
		Fac.	3.4	0.9	0	5	2	12	1	0	25	10	60	5

No.	P	Group	Mean	S.D.	Item Distribution									
					Frequencies					Percentages				
					A	B	C	D	E	A	B	C	D	E
26.	3	Year 1	3.6	1.1	3	25	11	56	23	3	21	9	48	20
		Year 2	3.6	1.0	10	24	12	19	5	14	34	17	27	7
		Fac.	3.8	0.5	0	0	4	15	1	0	0	20	75	5
27.	2	Year 1	3.2	1.1	11	25	21	53	8	9	21	18	45	7
		Year 2	3.2	0.9	1	17	17	29	6	1	24	24	41	9
		Fac.	2.9	1.0	1	7	4	8	0	5	35	20	40	0
28.	3	Year 1	3.4	1.0	4	24	15	71	4	3	20	13	60	3
		Year 2	3.5	1.0	4	22	14	25	5	6	31	20	36	7
		Fac.	3.8	0.7	0	2	2	15	1	0	10	10	75	5
29.	2	Year 1	4.1	0.8	2	2	10	69	35	2	2	9	59	30
		Year 2	4.1	0.6	1	11	5	37	16	1	16	7	53	23
		Fac.	4.4	0.5	0	0	0	12	8	0	0	0	60	40
30.	5	Year 1	3.4	1.1	8	15	27	52	16	7	13	23	44	14
		Year 2	3.7	0.9	0	2	1	49	18	0	3	1	70	26
		Fac.	3.0	0.9	1	5	6	8	0	5	25	30	40	0
31.	1	Year 1	2.1	0.8	25	55	33	4	1	21	47	28	3	1
		Year 2	2.4	1.0	0	1	0	27	42	0	1	0	39	60
		Fac.	2.1	0.6	3	12	5	0	0	15	60	25	0	0
32.	5	Year 1	2.2	0.8	17	73	18	9	1	14	62	15	8	1
		Year 2	2.5	1.1	11	44	6	8	1	16	63	9	11	1
		Fac.	2.4	0.6	0	13	6	1	0	0	65	30	5	0
33.	2	Year 1	3.2	1.0	6	18	42	45	7	5	15	36	38	6
		Year 2	3.3	0.9	5	18	11	33	2	7	26	16	47	3
		Fac.	3.3	0.8	0	4	7	9	0	0	20	35	45	0
34.	1	Year 1	2.0	1.0	34	61	8	50	0	29	52	7	13	0
		Year 2	1.8	1.0	0	7	13	46	4	0	10	19	66	6
		Fac.	1.9	0.8	6	11	2	1	0	30	55	10	5	0
35.	4	Year 1	3.1	1.2	16	27	18	47	10	14	23	15	40	9
		Year 2	3.1	1.1	1	5	17	42	5	1	7	24	60	7
		Fac.	3.3	1.2	0	4	2	13	1	0	20	10	65	5

No.	P	Group	Mean	S.D.	Item Distribution									
					Frequencies					Percentages				
					A	B	C	D	E	A	B	C	D	E
36.	5	Year 1	4.2	0.8	1	6	5	60	46	1	5	4	51	39
		Year 2	4.3	0.6	1	1	9	48	11	1	1	13	69	16
		Fac.	4.0	0.6	0	1	0	16	3	0	5	0	80	15
37.	1	Year 1	3.7	0.9	2	11	20	73	12	2	9	17	62	10
		Year 2	3.8	0.8	0	5	15	40	10	0	7	21	57	14
		Fac.	3.4	0.7	0	2	8	10	0	0	10	40	50	0
38.	5	Year 1	3.6	0.9	2	12	19	74	11	2	10	16	63	0
		Year 2	4.1	0.6	1	4	6	34	25	1	6	9	49	36
		Fac.	3.8	0.8	0	3	0	15	2	0	15	0	75	0
39.	4	Year 1	4.6	0.6	0	0	0	38	80	0	0	0	32	68
		Year 2	4.5	0.6	3	8	9	42	8	4	11	13	60	11
		Fac.	4.5	0.5	0	0	0	10	10	0	0	0	50	50
40.	4	Year 1	4.4	0.8	2	1	3	51	60	2	1	3	43	51
		Year 2	4.2	0.9	2	16	21	29	2	3	23	30	41	3
		Fac.	4.6	0.5	0	0	0	8	12	0	0	0	40	60