AN ETHNOGRAPHIC STUDY OF KNOWLEDGE OF INSTRUCTIONAL DEVELOPMENT AND THE INSTRUCTIONAL PLANNING PROCESS USED BY NURSE EDUCATORS IN NEWFOUNDLAND

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BY

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A thesis submitted to the School of Graduate Studies
in partial fulfilment of the requirements for
the degree of Master of Education

Faculty of Education
Memorial University of Newfoundland

September, 1993

St. John's Newfoundland

ABSTRACT

The purpose of this ethnographic study was to elicit data from nurse educators in Newfoundland concerning their knowledge of instructional development and to determine how nurse educators in Newfoundland plan instruction. The study was a continuation of previous studies carried out in the school system in Newfoundland. Gallant (1989), Tobin (1989), Thomey (1991), and Graham (1991) studied primary and elementary teachers, high school teachers, and teacher-librarians and determined that the groups studied did not have a comprehensive knowledge of and competency in instructional development.

This study was executed from the winter of 1993 to the summer of 1993 using semi-structured interviews. All interviews permitted open responses and the interviews were respondent-driven. The respondents consisted of one nurse educator from each of the five provincial schools of nursing.

Results of the study indicated that the nurse educators who participated in the study have a functional knowledge of instructional development. They plan instruction systematically.

ACKNOWLEDGEMENTS

The researcher would like to extend her appreciation to a number of friends and colleagues who were instrumental in the completion of this thesis.

A special gratitude is extended to my thesis supervisor, Dr. Mary Kennedy, for her assistance, guidance, and information. Without her direction and insight, this thesis would have been much longer reaching its completion.

I would like to acknowledge the invaluable assistance of the faculty and staff of the Learning Resources Program during my graduate studies.

Special thanks is extended to the nurse educators who eagerly cooperated and shared their experiences for the study. I would also like to thank my friend and colleague, Sherida Healy, who provided many words of encouragement and many words of wisdom while I was working on this thesis.

I would also like to extend a sincere thank-you to my family and friends who made numerous sacrifices and who provided continued support and encouragement in so many ways while this manuscript was being compiled.

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CHAPTER ONE

Background of the Study

Introduction

According to Hoban (1965), "The central problem of education is not learning but the management of learning, and that the teaching-learning relationship is subsumed under the management of learning" (p. 124). This central problem of education can be applied not only to the regular school system, but to post-secondary education as well and, specifically, to nursing education.

This ethnographic study occurred in the basic nursing education programs in the province of Newfoundland. Presently, there are four diploma programs and one baccalaureate program. Three of the diploma programs are three years in length and the other is two and one-half years. The baccalaureate program is a five year program which includes one year of General Studies for the learners.

The educators who teach in these programs, with few exceptions, are nurses. They are responsible for the academic and clinical teaching of their learners. In keeping with the requirements of the provincial nursing association, the majority of educators in the

diploma schools have a minimum of a Baccalaureate degree in Nursing (Association of Registered Nurses of Newfoundland [ARNN], 1991b, p.24). Those without this minimum requirement have a Bachelor's degree in some other discipline, Vocational Education for example. Most of the faculty who teach in the baccalaureate program have a Master's degree in Nursing. Many of the faculty teaching at the diploma schools are presently striving for a Master of Nursing degree or a Master of Education degree. Some have already realized this goal.

The minimum requirement for nursing faculty teaching in the baccalaureate program is that at least 75% of faculty have a Master of Nursing degree (or equivalent) (ARNN, 1991b, p. 23). This requirement has been fulfilled at Memorial University and a minority of faculty have attained a doctoral degree or are presently working on doctoral programs.

Purpose of the Study

There were two purposes of this study:

1. To determine the knowledge of nurse educators regarding the instructional development process.
2. To determine how nurse educators planned instruction.

The ethnographic case study involved interviewing one faculty member from each of the five institutions involved in basic nursing education.

Significance of the Study

The Association of Registered Nurses of Newfoundland (ARNN) is the professional nursing body which, among many other responsibilities, also regulates the licensure of nurses in this province. They are committed to the safe practice of nursing in Newfoundland and to the welfare of the patients/clients entrusted into the nurse's care. A stated goal is "To dignify the profession by maintaining and improving the ethical and professional standards of nursing education and service" (ARNN, 1970, p.3).

There are strict regulations governing nursing education programs. The ARNN by-laws (1991a) have identified the minimum clinical and theoretical components of a nursing program. The education consultant from the ARNN is a member of the curriculum committee in each School of Nursing in Newfoundland. All provincial basic nursing education programs must undergo an approval process by the ARNN. In addition, the four diploma programs are affiliated with the four major hospitals in the province. Each of these

hospitals goes through an accreditation process. The university program participates in the Canadian Association of University Schools of Nursing Accreditation Program (1987).

This is a particularly interesting time to be studying nursing education in Newfoundland. All of the schools of nursing are working with the ARNN to develop a collaborative curriculum for future nursing education. Primarily, this will be a degree granting curriculum, with a diploma exit if the student should so desire. This new curriculum promises to hold exciting changes and challenges for the students and for the educators.

With these many changes in nursing education, a systematic approach would facilitate the process to ensure that the new curriculum is as effective and as productive as possible. Educational technology could be invaluable in achieving this.

> Educational technology is a complex, integrated process involving people, procedures, ideas, devices and organization for analyzing problems and devising, implementing, evaluating and managing solutions to those problems involved in all aspects of human learning. (AECT, 1977, p. 12)

From his writings, it could be speculated that Beckwith (1988) would agree with this delineation of the role of educational technology in the nursing education changes.

> The systemic approach enables us to serve as the problem-solvers of the learning process, the dreamers and creators of new and more effective learner systems...Since operating systemically requires control over all system components...ours is the responsibility for management of learner and learning transformation. (p. 15)

Instructional development is a subconcept of educational technology. Instructional development is defined as the following:

> A systematic approach to the design, production, evaluation, and utilization of complete systems of instruction, including all appropriate components and a management pattern for using them; instructional development is larger than instructional product development, which is concerned with only isolated products, and is larger than instructional design, which is only one phase of instructional development. (AECT,

1977, p. 20)

There is, however, some dispute of the definition of instructional development in the literature. Gagne, Briggs, & Wager offer a different definition.

> Instructional systems design is the systematic process of planning instructional systems, and instructional development is the process of implementing the plans. Together, these two functions are components of what is referred to as instructional technology. (1988, p. 20)

Kemp (1985) provides yet another definition.

> Instructional technology means the resources of instruction...Another, more important understanding of the term is as the process of systematic planning. This process establishes a way to examine instructional problems and needs, sets a procedure for solving them, and then evaluates the results. Instructional design is the procedure used to implement the process. The management of personnel, budgets, and support services to improve instruction within an organization or institution is called instructional development. (p. 4)

Robert Heinich (1970) views instructional development as entering into the total instructional process at the curriculum planning level, following curriculum determination and before classroom implementation.

> Instructional development is the term used in knowledgeable circles in higher education to describe attempts to enter the instructional process at the level of curriculum planning....instructional development seeks to design instruction rather than supplement it. (p. 170)

The new collaborative curriculum for future nursing education which is being developed in Newfoundland will soon be at this stage described by Heinich.

Limitations of the Study

While implementing this study, the following limitation was recognized.

1. The study was conducted using one instructor from each of the five Schools of Nursing in the province of Newfoundland. The applications and conclusions can only be made within the limits of this group. It should be noted, however, that the instructors studied were representative in educational

background and teaching experiences of the majority of nurse educators.

Definition of Terms

For the purpose of this study, the following terms and definitions apply.

Basic nursing education: Refers to diploma or baccalaureate programs that prepare candidates to apply for initial registration or licensure as professional nurses (Canadian Nurses Association [CNA], 1978, p. 7).

Curriculum: A systematic and comprehensive plan of learning activities (CNA, 1978, p. 7).

Instructional development: A systematic approach to the design, production, evaluation, and utilization of complete systems of instruction, including all appropriate components and a management pattern for using them; instructional development is larger than instructional product development, which is concerned with only isolated products, and is larger than instructional design, which is only one phase of instructional development (AECT, 1977, p. 20).

Nurse educator: One who facilitates acquisition and modification of nursing knowledge, skills and attitudes to prepare beginning practitioners of nursing and enhances the competence of experienced nurses.

Nursing education: The process that facilitates acquisition and modification of nursing knowledge, skills and attitudes to prepare beginning practitioners of nursing and to enhance the competence of experienced nurses (CNA, 1978, p.7).

Organization of the Study

The report of this study is organized in the following way.

Chapter 2 discusses a review of the relevant literature regarding nursing education and instructional development. It also presents an overview of the instructional development process.

Chapter 3 profiles the methodology used in the conducting of this study.

Chapter 4 reports and qualitatively analyzes the results of the data gathered during the study.

Chapter 5 draws conclusions from the study and makes recommendations for future study.

CHAPTER TWO

Review of Related Literature

Introduction

In 1974, Lev Landa wrote:

> The teacher is often concerned only with offering the student knowledge about the content of what is studied, and is considerably less concerned with giving him the means of operating on or with this content and with how to think, reason, reflect as he assimilates the specific content and applies his knowledge about it...the students themselves usually just think about the content of what they have to learn and they do not think about how to learn. (p. xiv)

A common concern among nurse educators is how to facilitate the students' application of knowledge to the clinical setting, and the utilization of conceptual and factual knowledge in problem-solving and critical thinking processes (Berger, 1984; Gross, Takazawa & Rose, 1987; Miller & Malcolm, 1990; Schank, 1990; Jones & Brown, 1991; Kintgen-Andrews, 1991).

Nursing Education

Historical Perspectives

Nursing has been in existence since ancient cultures. It has generally been the responsibility of women and has been strongly influenced by monastic religious orders who cared for the sick. It was originally thought that nursing could be done by intuition.

Until recently, nursing education was referred to as training. Training, according to The Concise Oxford Dictionary, is to "Bring to desired state or standard of efficiency by instruction and practice" (p. 1354). Apprentice is defined by the same source as "Learner of a craft, bound to serve, and entitled to instruction from his employer for specified term" (p. 55). Keddy and Lukan (1985) commented that in the early 1900s, nursing education was not even well grounded apprenticeship because novices learned from their peers, not from skilled masters.

Palmer (1985) cites Nutting and Dock's work from 1907:

> Dr. Valentine Seaman, a physician at the New York Hospital, is generally recognized as the initiator of the first systematic attempt to

> provide instruction for nursing attendants. In 1798, before Nightingale, he organized the first regular training of nurses; gave them a series of 24 lectures, which included anatomy, physiology, the care of children, and midwifery. (p. 102)

Another physician was also involved in training nurses. In the early 1800s, in Philadelphia, Dr. Joseph Warrington:

> ...offered a system of training women for nursing maternity cases. His services as instructor were contracted for through the Nurse Society of Philadelphia which he helped to organize in 1839. Women were trained with medical apprentices, practiced on dummies, and received lectures. (Palmer, 1985, p. 103)

True planning for nursing schools did not begin until the 1840s. Initially, there was still little actual training and no theoretical instruction. For a few months, the nurses would go daily to work and learn from the ward sisters (who were untrained themselves).

According to Griffin and Griffin (1969), the first real nursing school was established in England in 1860 by Florence Nightingale. She stressed the necessity of training for nurses. She had the insight to know that

special training was needed to care for the sick and she wanted to establish a career for women similar to medicine for men. "Nightingale contributed to the foundation of a knowledge base unique to nursing, and stressed the importance of education for the nurse" (Cull-Wilby & Pepin, 1987, p. 516). Fifteen probationers were admitted to the Nightingale School at St. Thomas' Hospital for one year's training and they were not to be considered as part of the hospital staff. The principles upon which the school was established were:

1. Nurses should be technically trained in hospitals organized for that purpose.
2. Nurses should live in "homes" fit to form their moral lives and discipline. (Griffin & Griffin, 1969, p. 77)

The first nursing text was Notes on Nursing by Florence Nightingale published in 1859.

Diploma Schools

The first training school for nurses in Canada was established by Dr. Theophilus Mack who established a school in St. Catharines, Ontario, in 1874. This was one year after the first Nightingale School in the United States. By 1900, twenty hospital training

schools had been established in Canada. This number escalated to seventy by 1909 (Duncanson, 1970). However, the philosophy of the schools of nursing was far different than that of the Nightingale school in England. Service to the hospital took precedence over educational concerns (Mussallem, 1965).

As hospitals began to establish schools of nursing, cheap labor was provided by the students who staffed the hospitals and who worked long hard hours in return for their room and board. Nurses provided basic, mostly custodial, care. They were expected to be jacks-of-all-trades and, under the guise of practical experience, they were expected to function in the kitchen, laundry, laboratory and in all other areas of the hospital. The training for these chores was experienced on-the-job and junior students were usually the responsibility of senior students. Keddy and Lukan (1985) write that even as late as 1890, only 20 percent of nurses' training was theory. Lecture hours would be scheduled to accommodate the hospital schedule.

McQuarrie (1955) discusses the lack of instructors during the early periods of nursing schools. The responsibility of teaching nursing students fell to the superintendent of nurses. In Canada, one school of nursing in 1907 appointed an instructor for "teaching

the probationer, by demonstration, the simple principles of nursing" (p. 195). Subsequent years saw physicians teaching student nurses.

Mussallem (1965) quotes Adelaide Nutting (the first professor of nursing at Columbia University):

> Heavy demands of the wards made it impossible for all students to attend their weekly lecture and it was always arranged that some students would choose to take very full notes and read them later to the assembled group of less fortunate. Lectures came under the category of privileges like hours off duty to be granted hospital duties permitting. (p. 6)

Incidental instruction occasionally occurred and students had one or two hours of lectures per week. These lectures were given by a physician or by the nursing superintendent and were attended by those students who did not have clinical commitments at the time. It was their responsibility to share the acquired information with their fellow students who had been unable to attend the lecture. Once the trainee was at the hospital for a required period, the hospital granted a diploma. This mode of training generated great concern regarding the quality and standard of care the patients were receiving (King, 1970).

As a result of this exploitation of nursing students, nurse leaders lobbied for the establishment of improved educational standards. The first initiative toward this goal was the publication of the Standard Curriculum for Schools of Nursing in 1917 in the United States. This curriculum was also widely used throughout Canada (Mussallem, 1965).

University Schools

In addition to the attempt to attain educational standards, another main thrust in nursing has been, and continues to be, to have nursing truly recognized as a profession. One of the strategies to achieve these goals has been the ambition to relocate nursing education from hospital schools to university schools.

> The purpose of a university school of nursing is to provide for the professional preparation of nurses through correlated programmes of liberal and professional education. (Mussallem, 1965, p. 80)

However, not all members of the health care team encouraged this relocation of nursing education. There was much concern that nurses were being overtrained.

> It was argued that by knowing too much the nurses became unfit for the essential nursing

> task or that we were wasting our time educating a group of "semiprofessionals". This attitude among members of the medical profession and among others upon whom the nurses must rely for advancing their standing has been the chief obstacle against which they have had to fight. However, it rather strengthened than weakened their fight, because it made it necessary for every advance to possess the vitality of inherent value to survive. Since 1872 the education of nurses has advanced in spite of this opposition. (Griffin & Griffin, 1969, p. 104)

Fortunately, the Canadian Red Cross Society also became increasingly aware of the need for improved health services within the country and focused much effort and resources on the provision of adequate nursing services. The Society approached several universities aspiring to establish nursing faculties. Although the first two attempts, in 1906 and 1913, to establish university nursing education in Canada failed, the nursing course at the University of British Columbia was initiated in 1919.

This first program required the students to complete two years of university courses, two years in

a hospital, followed by a final year of study at the university. In the early years as the university programmes were being established, a wide variety of courses were required with relatively little emphasis on the sequencing and grouping of subjects. Focus was placed, instead, on a field of knowledge that might be useful or applied to nursing (King, 1970).

The university had no authority over the students or their hospital experience, yet they conferred a degree. This non-integrated arrangement promoted discontinuity and confusion for the students because of the contrasting environments: the university being devoted to education and the hospital being devoted to service.

In 1942, the first integrated program was offered by the University of Toronto. This integrated curriculum offered courses in humanities and sciences with a specialized education in nursing. The complete program was under the full jurisdiction of the university. The issue of qualified instructors arose. The first graduate program in nursing was not offered until 1959 (this program was offered at the University of Western Ontario). Until this time, baccalaureate prepared nurses aspiring to graduate studies were compelled to study in the United States. Besides being

quite expensive, those that did follow this option often chose to stay in the United States (King, 1970)

Undergraduate university programmes presently offer two courses of study. One is the basic program and the other is the post-diploma program for nurses who have already completed a diploma program. The basic university program is either four or five year in duration and the post-diploma program is two to three years in duration.

Baumgart and Kirkwood (1990) elucidate that the attempts to reform nursing education, to raise it to a professional level, have been closely tied with the struggle of women for social equality within Canada. In 1919, only 16.3% of university undergraduates were women. It was not considered necessary to spend money on women's education (hospital based programs paid the student's room and board in return for a high service component) and women were deterred from taking scientific courses. This tenet is also held by Seigel (1984). She states that higher education for women was regarded as debilitating to their minds and bodies. It was marriage and a family, not a career, that was the mark of a successful woman. Because nursing is mainly a woman's occupation, women must become empowered before nursing can be recognized as professional.

Learning Styles of Nursing Students

Learning theory is fundamental to instructional development. According to Bigge (1982), a learning theory is a "systematic integrated outlook in regard to the nature of the process whereby people relate to their environments in such a way as to enhance their ability to use both themselves and their environments more effectively" (p. 3).

The Kolb Model (1976) is one of the most prevalent models of learning styles found in nursing education literature. It uses Jung's theories of behaviors.

> That there are two ways of perceiving--by sensing or by intuition--and two ways of judging--by thinking or by feeling. In addition to whichever of these processes an individual prefers, there will be accompanying preference for introversion or extroversion. (Roberts, 1977, 141)

According to Hawks (1992):

> Kolb (1984) defines learning as the process (not outcome) whereby knowledge is created through transformation of experience...Every experience pulls from past experiences and modifies knowledge and the person. Kolb thus agrees with the pragmatic view that persons

> constantly evolve through interaction with the environment. (p. 614)

Within the Kolb Model, a self-descriptive "Learning Style Inventory" was developed to measure differences in 'earning styles along two basic dimensions of abstract-concrete and action-reflection (Kolb & Baker, 1979;Partridge, 1983; DeCoux, 1990). Four predominant learning styles have been identified using this instrument. Each learning style is a combination of two learning processes. These processes are active experimentation (doing), reflective observation (watching), concrete experiences (feeling), and abstract conceptualization (thinking). 1. The convergers, who prefer abstract conceptualization and active experimentation, are relatively unemotional and like to deal with things rather than people.

2. The divergers, whose preferences are concrete experience and reflective observation, are good at generating ideas, tend to be people oriented and emotional.

3. The assimilators, who prefer abstract conceptualization and reflective observation, excel at assimilating diverse items into an integrated whole. They are primarily concerned with abstract concepts, and, therefore tend to be less concerned with people

and the practical application of ideas.

4. The accommodators, who prefer concrete experiences and active experimentation, are risk-takers, intuitive and often solve problems through trial-and-error (Partridge, 1983).

According to studies in DeCoux (1990), the majority of nursing students are assimilators and divergers.

Should Nurse Educators Consider Learner Styles?

> A learning strategy is defined as the sensory stimuli through which necessary conditions for perceptual stimulation, cue selection and translation are structured to provide the student the opportunity to attain one or more predetermined behaviors. Research indicates that it is not only the learning strategy itself that accounts for a difference in learning, but rather a specific characteristic, attribute or quality that it entails as the learner actively responds to it. (Ostmoe, Van Hoozer, Scheffel, & Crowell, 1984, p. 27)

According to Ostmoe, et al., (1984), the propensity of an educator to consider a learner's style

and preference when selecting teaching-learning strategies indicates an ideology that instruction is an active two-way communication process. The learner brings attitudes, skills, knowledge and personal experiences to the teaching-learning situation which can be used to facilitate the instructional process.

Highfield (1988) discusses strategies involving learning styles nurse educators can utilize to improve nursing education. Nursing faculty should fully understand the notion of learning styles and be able to manipulate their teaching styles to complement different learning styles. They should become aware of the learning styles of their students and use this knowledge to enhance student learning. The nursing faculty should maximize the students' current learning styles and facilitate the students' future learning by assisting students to develop new styles.

The Future of Nursing Education

Nursing education is dynamic and is presently undergoing many changes. The three changes presently challenging nurse educators in Newfoundland are the following:

1. The curriculum revolution from the behavioristic model to the humanistic model presently

being endorsed by the nursing education community at large.

2. The development of a collaborative curriculum for future nursing education in the province of Newfoundland.

3. The reorganization of the third year of the program in diploma schools from a service orientation to an educational year.

Curriculum revolution. Many have said nursing education is experiencing a revolution (Moccia, 1990; de Tornyay, 1990; Tanner, 1990; Diekelmann, 1990). Kuhn (1970), describes scientific revolutions as "those noncumulative developmental episodes in which an older paradigm is replaced in whole or in part by an incompatible new one" (p. 62). He contends that a revolution occurs when the existing paradigm "has ceased to function adequately in the exploration of an aspect of nature to which that paradigm itself had previously led the way" (p. 92).

This curriculum revolution began in 1986 when the nursing education community began questioning if the behavioristic model, which had been used for forty years, would be able to prepare nurses for the nursing challenges of the twenty-first century (Tanner, 1990). Bevis (1993) presents the view of Belenky, Clinchy,

Goldberger, & Tarule (1986) that in its strive for objectivity, behaviorism "has failed to allow for connected learning and constructed knowledge, for emancipatory education, for critical thinking, and for participatory power structures" (cited in Bevis, 1993, p. 103).

Byrnes (1986) recounts that humanistic theory derives from the deliberations of Carl Rogers, Abraham Maslow and Arthur Combs.

> This theory arose from the human potential movement--a kind of 'backlash' against the impersonal, product oriented, technological aspects of society...Humanistic education can be defined as a commitment to practice, in which all aspects of the teaching-learning process emphasize freedom, choice, value, dignity and integrity of each individual. Proponents of this theory recognize the learner as an active participant in the learning process--efforts are toward the development of a fully functioning self and self-actualization. (Byrnes, 1986, p. 304)

Beck (1992) agrees with Byrnes by articulating that nursing students must have a sense of being nurtured if their ability to care for others is to be developed. "A critical task of nurse educators

involves the development of nursing students' ability to care. If faculty are to help foster nursing students' capacity to care, the first step is to surround the students in a caring environment" (p. 22).

In the Caring Curriculum (as the humanistic paradigm of nursing education has come to be known), the student is expected to be active and to assume responsibility for learning. The student learns to focus attention on key aspects of the material, discovers relationships of new material to previous material, and establishes techniques of information retrieval. The teacher is expected to facilitate that learning within a supportive environment. The student develops a positive self-concept and develops positive interpersonal skills within a non-threatening environment for learning. Bevis (1993) summarizes: "Caring does not just instruct; it educates" (p. 104). de Tornyay (1990) describes the implementation of the Caring Curriculum:

> The curriculum revolution is about teacher-student partnerships. It is about flexibility and individual differences in how and what one learns. It is about instructors spending their time doing what no text, no program of learning, no computer, or learning

> resource can accomplish: developing the mind of the individual student through intimate give and take based on sound knowledge and understanding. (p. 293)

However, behaviorism has been successful in training students to perform specific tasks. "Nursing has both an intellectual and practical aspect" (Byrnes, 1986, p. 305). Nursing education is unique from many other types of post-secondary education because of the necessity to provide learners with opportunities to apply nursing knowledge and theory to practice. The foremost method of accomplishing this is to provide students with clinical experiences while ensuring that the safety of the patients/clients they are caring for is maintained. We must continue to expect students to develop mastery in psychomotor skills, but we must also expect students to develop mastery in cognitive skills. Some of these skills will require a modification of behavior, precisely defined observable outcomes, and established modes of evaluation to ensure competency. However, students must be able to practice nursing using a holistic and humanistic framework.

> Humanistic educators focus upon more global objectives. They are more interested in the process than the product aspect of

> learning...The effects of humanistic strategies are difficult to measure, and must rely on inference and subjective evaluation. Growth is not measured in terms of minimum or predetermined standards, but rather, may be maximum and unanticipated. (Byrnes, 1986, p. 304)

Therefore, nurse educators cannot totally abandon the behavioristic theory if they are to educate competent practitioners. A blended curriculum of behaviorism and humanism is desired.

Collaborative curriculum. In Canada, standards of nursing education are maintained by the ten provincial nurses' registration associations. The Registered Nurses' Association of Ontario in 1953 published Curriculum and Information for Schools of Nursing in Ontario. That document recognizes the nursing student as an individual with individual capabilities and advocated the need for student-centered teaching. Instead of course outlines, it indicates desirable outcomes and suggests strategies to attain these outcomes (McQuarrie, 1955). In 1978, the Canadian Nurses Association published a complete document listing updated standards for nursing education (See Appendix A).

In 1982, the Canadian Nurses Association (CNA) adopted the position that by the year 2000, the minimum educational requirement for entry into the practice of nursing should be the successful completion of a baccalaureate degree in nursing.

> The rationale for the change in minimal level of educational preparation for entry into nursing practice from a diploma in nursing to a baccalaureate degree in nursing lies in the belief that the nurse of the future will require the latter preparation to better meet the nursing needs of the public and to continue to function competently in the ever changing and increasingly complex health care system. Changes in the health status of the public and the health care delivery system indicate that both the role expectations and performance capabilities of the nurse are changing. (ARNN, 1988, p. 4)

All of the provincial professional associations for nurses have supported this position and have initiated steps toward the realization of the goal.

The change to a nursing baccalaureate as the minimal requirement for a new practitioner is not unique. It has also been envisioned internationally.

Nurses in Australia, New Zealand, and the United Kingdom are working to realize this aspiration. Iceland and Finland have already achieved this goal.

The American Nurses Association recognizes the need for higher education for nurses. However, they have adopted a position with a professional level and a technical level of nursing practice. The baccalaureate would be the requirement for the professional level (ARNN, 1988).

This change in minimal educational requirements results from the changing trends of today's society as well as those being forecasted for the future. It has been determined that this educational preparation will be needed to provide future, quality nursing care considering the present changes in health care and health care delivery systems.

1. Shifts will occur in population demographics with an increase in life expectancies and a decreased birth rate.

2. Health care delivery will move from institutional to community-based care with an increased degree of acuity of health needs in both settings. Continuing care programs, ambulatory services, and day hospitals will expand.

3. There will be a shift in the focus of health

care delivery toward health-oriented models of delivery rather than cure-oriented models. This will result in increasing emphasis on self-responsibility for health and consumerism in health care.

4. Technological developments and knowledge will increase at a rapid rate both in nursing and society. Health care will become more specialized. The health care consumers will be more informed. Existing knowledge will become rapidly obsolete.

5. Ethical questions relating to health care will be increasingly complex.

6. There will be further development of the nurses' role as both independent and primary health care practitioners.

7. Intersectorial (health, social services, education) initiatives will grow to better coordinate health care services.

8. There will be limited resources to meet health care demands. (ARNN, 1988, p.16-18)

In 1992, the Liaison Committee on Future Nursing Education presented a Strategic Plan for Future Nursing Education for Newfoundland.

> The goal of the Strategic Plan for Future Nursing Education is to develop a curriculum model to ensure that all future nurses

> entering the profession are prepared at the BN [baccalureate] level. As a first step toward that end, a collaborative curriculum model will be developed to make BN education more accessible to all beginning nursing students. (p. 2)

Its proposal was to bring all five Schools of Nursing together and offer a single nursing program with a collaborative curriculum. The new nursing program would provide for a diploma exit (for a limited time) and a baccalaureate exit. This collaborative curriculum is nearing the completion of the planning stage. The proposed curriculum is a blend of the humanistic and behavioristic paradigms.

Changes to Year 3. The final year of the diploma programs has been heavily weighted with a service component to the affiliated hospital. The implication was that the schools of nursing did not have complete jurisdiction over the students in their third year.

Beginning in September, 1993, the third year of diploma programs has become an educational year similar to the first and second year. This has permitted the schools of nursing to include more classroom time and classroom activities in this portion of the program. The schools will also have complete jurisdiction over

the length and areas chosen for clinical placements for the students. These students will pay tuition to the schools, will no longer receive a stipend, and will commence and complete the established semesters in the schools.

Instructional Development

Historical Perspectives

Instructional technology probably began with a group of teachers known as Elder Sophists in Athens during the last half of the fifth century B.C. (Saettler, 1967). The students knew what was expected of them, how they might achieve their goals, and how well they were progressing. The Sophist methods had a certain amount of flexibility, as students had an opportunity to choose from a variety of modes for application of lecture content to practical situations. Another figure to consider from around this time period was Socrates. Socrates (470-399 B.C.) contributed a method aimed to teach by inquiry. He led a discussion utilizing leading questions to evoke student responses.

Much later, Johann Comenius (1592-1670) used learners' biological, cognitive, and moral development to lead them inductively through material as they were ready to learn it. He presented the notion that

material should be sequenced from easy to complex. Learners worked with natural objects and studied practical things.

There were several people who contributed incidentally to instructional technology after Comenius. However, the next contributor of note was Johann Herbart (1776-1841) who discussed apperception, or the process of relating new ideas with old ideas. It was the role of the instructor to select the correct ideas and materials for developing interests and forming apperceptive masses (Saettler, 1968).

According to Saettler (1968), "Thorndike is the historic starting point for any study or analysis of modern instructional technology" (p. 53). Around the turn of the century, Thorndike was studying the design of instructional media, the organization of instruction, individual differences, and the methods of evaluation.

Maria Montessori is eminent for having developed one of the earliest scientifically based instructional systems and graded instructional materials in this century (Saettler, 1990). Her technology included adapting schoolwork to the individuality of each learner, allowing learner freedom and independence, and emphasizing sensory discrimination of the learner.

Following World War I, from 1918-1924, there was an increasing interest in visual instruction with the advent of instructional films. The audiovisual instruction movement emerged (Saettler, 1968). The focus was the organization of departments of visual instruction and the collection and distribution of a wide assortment of instructional media. This era continued until the beginning of World War II.

Seels (1989) traces the instructional design movement to the systems approach used for military training during World War II. One of the first people involved with this systems approach was James Finn.

> Finn...was a father of the instructional design movement because he linked the theory of systems design to educational technology, and thus encouraged the integrated growth ...Finn described technology as a systematic application of knowledge to solve a problem, in this case an instructional problem. (Seels, 1989, p. 11)

Two other pioneers in instructional development were two psychologists, Leslie Briggs and Robert Gagne. They were involved in the practical training problems for the military. In trying to improve instruction, they identified the areas of types of learning,

conditions for learning, media characteristics, and task analysis as areas which needed to be researched in order to design effective instruction.

Next, B.F. Skinner suggested that educators should apply the principles of behavioral reinforcement theory to the design of instruction. Programmed instruction became the first instructional technology. "The emergence of the programmed instruction movement gave us great confidence in our ability to design effective and replicable instruction" (Heinich, 1984, p. 74). In the 1960s, Jerome Bruner challenged Skinner's work and emphasized discovery learning. Around the same time, media was contributing interactive learning such as computer-assisted instruction (Seels, 1989).

Three historical events that influenced the instructional development field were Sputnik in 1957, the post-World War II baby boom, and the student riots. Sputnik subsequently caused an influx of federal funds for large scale curriculum projects. The baby boom caused schools and colleges to be overwhelmed with enrolment. To accommodate the large number of students, schools began allowing for a combination of large group instruction, small group instruction, and independent study. Diamond (1980) acknowledges the student riots of the late 1960s and early 1970s as

contributing to the history of instructional development. The demand of students for a "relevant" education forced many campuses to invest funds into a formal effort to improve instruction.

Instructional development became an identified profession in 1971 at a national convention of the Association for Educational Communications and Technology. An instructional developer was defined as "a facilitator of change, a questioner, a supporter, an individual who helps a faculty member (content specialist, teacher, etc.) get where he or she wants to go" (Diamond, 1980, p. 51).

Seels (1989) also discusses the paradigms that have contributed to instructional development: behaviorist, cognitivist, and cognitive constructivist. The behaviorists emphasized how to direct and measure learning. The cognitivists emphasized developing a theoretical base about information processing. The cognitive constructivists have taken longer to evolve and have had less impact to date. They explained learning as happening because the learners resolve conflicts between ideas and their own personal knowledge and reflect on theoretical explanations. Errors are valued and the environment is conducive to discovery and exploration.

Developing Instruction

Mager (1967) defines instruction as the facilitation of learning. There are several ways to create instruction. One relies on a master teacher. The teacher creates materials or lectures and chooses content as a matter of personal choice. According to Logan (1982), this method is effective only when the teacher has much charisma and understanding. He cites Plato, Jesus, Mohammed, Buddha, and Confucius as examples of great teachers.

A second method relies on the student.

> Spontaneous design of instruction--instruction whose goals and procedures are developed "on-the-spot" for each learner, who controls both the objectives and methods for learning. The teacher provides an environment, consisting of equipment, natural objects and physical materials, print, other information sources, etc. The learner is then invited to decide what he would like to do with these resources (Briggs, 1970, p. 1).

A third method relies on expert logic. A desired outcome of instruction is analyzed, and materials are designed and developed based on that analysis. After instruction is given with these materials, student

performance is evaluated and revisions are made (Logan, 1982).

Saettler (1990) presents a synopsis of several instructional design theories that emerged between 1950-1980.

Bruner's Search for a Theory of Instruction. In 1966, Bruner stipulates that a theory of instruction must include the following: predisposition to learn, structure of knowledge, sequence, and reinforcement. Bruner also focuses on individual differences.

Gagne's Hierarchial Task Analysis. Gagne's behavioristic approach to instructional design includes eight hierarchial categories of learning arranged in order of increasing complexity: 1) signal learning, 2) stimulus-response learning, 3) chaining, 4) verbal association, 5) discrimination learning, 6) concept learning, 7) rule learning, and 8) problem solving. Each category is a prerequisite to the next more complex skill.

Gagne-Briggs Theory of Instruction. This prescriptive theory suggests that each category of learning outcomes (verbal information, intellectual skills, cognitive strategies, attitudes, and motor skills) requires a different assortment of conditions for effective learning, and accepted the information-

processing model of learning and memory and the need for reinforcement and feedback. Instruction includes the sequential set of events of 1) gaining attention, 2) informing the learner of the objective, 3) stimulating recall of prerequisites, 4) presenting the stimulus material, 5) providing learning guidance, 6) eliciting the performance, 7) providing feedback, 8) assessing the performance, and 9) enhancing retention and transfer.

Case's Neo-Piagetian Theory of Instruction. This theory focuses on how to optimize the development of children's operational cognitive structures and how to manipulate instruction so that it conforms to the cognitive structures the learners already have. Once the goal has been identified, a series of steps are decided upon to reach the goal. The learner's current level of functioning is assessed and compared to this series of steps.

Component Display Theory. Merrill expanded Gagne-Briggs theory. According to this theory, all cognitive instruction consists of telling and questioning. Learning outcomes include both content and desired level of performance. The underlying premise is that learners will control both the content and the strategies used.

Elaboration Theory of Instruction. Reigeluth describes instruction as being primarily concerned with elaboration of concepts, principles, and procedures. An overview is presented and then instruction focuses in on more specific and complex details.

Structural Learning Theory. Scandura's theory involves rule-learning and rule applications. He proposes teaching the simplest path through a rule first and then teaching more complex paths until the entire rule is mastered.

The Algo-Heuristic Theory of Instruction. Landa's algo-heuristic theory is an approach to teaching creative thinking. The learner uses algorithms (prescribed rules) and heuristics (rules of thumb) to learn and apply content. Instructional strategies are selected to encourage students' development and application of algorithms and heuristics in a sequential or "snowballing" method.

A Cognitive Theory of Inquiry Teaching. This theory, developed by Collins-Stevens, is thought to be particularly useful for intelligent Computer-Assisted Instruction. It involves having a set of strategies, properly selected and sequenced, to facilitate achievement of a set of teacher's goals. The teacher analyzes learner errors and uses this analysis as part

of the instructional process.

There are numerous instructional development models. Common elements to these models, according to Knirk and Gustafson (1986), are the following:

1. Data collection.
2. Assessment of learner entry skills.
3. Specification of behavioral objectives or performance tests.
4. A procedure for selecting presentation methods and media.
5. An implementation, evaluation, and revision procedure.

Most models also include procedures for:

1. Identifying broad instructional goals.
2. Organizing the management of the project.
3. Identifying the problem.
4. Performing a needs assessment.
5. Identifying constraints imposed by physical facilities.
6. Identifying a procedure to construct and test prototype instructional materials.

Only two models will be presented here. After reviewing the models, it is evident that both engage in very similar activities. Kemp (1985) discusses 10 elements that should be included in an instructional

development plan (he refers to it as an instructional design plan). These elements are the following:

1. Assess learning needs for the instructional program and state the goals, constraints, and priorities that must be recognized.
2. Select topics or job tasks to be addressed and indicate general purposes to be served.
3. Examine characteristics of learners.
4. Identify subject content and analyze task components.
5. State learning objectives.
6. Design teaching/learning activities to accomplish the stated objectives.
7. Select resources to support instructional activities.
8. Specify support services required for developing and implementing activities.
9. Prepare evaluation of outcomes.
10. Pretest learners to determine readiness to study the topic. (See Figure 1)

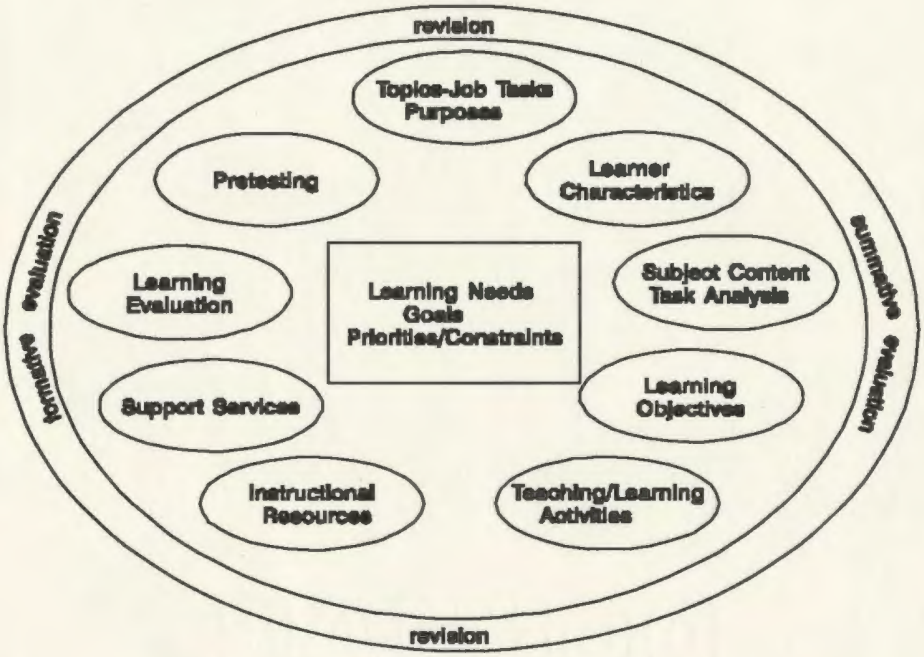

Figure 1. Kemp's Model of Instructional Design. (Kemp, 1985, p. 11)

Gagne, Briggs, and Wager (1988) discusses Dick and Carey's model of instructional design which has nine stages.

1. Identify instructional goals.
2. Perform a task analysis.
3. Identify entry behaviors and learner characteristics.
4. Develop performance objectives.
5. Develop criterion-referenced test items.
6. Develop an instructional strategy.
7. Develop instructional materials.
8. Conduct a formative evaluation and make any

revisions to the process.

9. Conduct a summative evaluation. (See Figure 2)

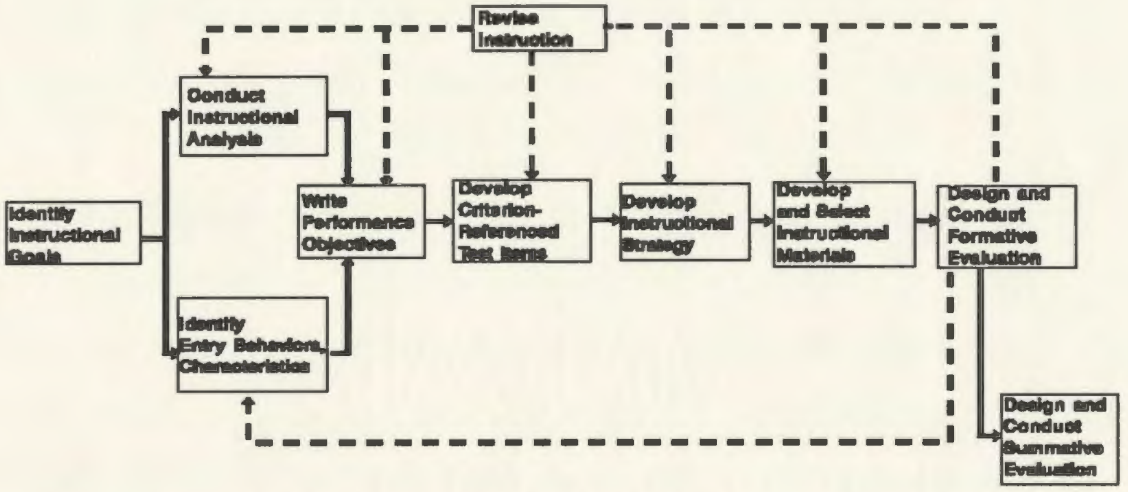

Figure 2. Dick and Carey's Model of Instructional Design. (Dick & Carey, 1985, pp. 2-3)

There are four underlying values of instructional development discussed by Gustafson & Tillman (1991) (labelled instructional design by these authors). The first underlying value is agreement of goals and objectives. Everyone concerned with the instruction must agree on the goals and objectives for the instruction to work. The second value is that instructional objectives must be directly measurable in a valid and reliable manner. Third, instructional development focuses on the learner and not the teacher.

The goal of the instruction is changes in learner knowledge, skills, or attitudes. The teacher is seen as a possible vehicle for delivering instruction. The fourth underlying value is that there is still much to learn about the process and knowledge base of instructional development.

Instructional Development--Art, Craft, or Science?

Ivor Davies (1981) states unequivocally that instructional development is an art. He does admit the role of art, craft, and science in instructional development. Neither realizes the full potential of instructional development. Art creates instruction rather than transforms. Planning and implementation usually go together as opposed to a craft which separates planning from implementation.

Sachs (1981) agrees with Davies that instructional development is indeed an art. He states that because of the unpredictability and complexity related to the interaction of people, ideas, things and events involved in instructional development, the application of science or craft alone is insufficient. Even though the developer must apply learning principles and various tools and procedures of instructional development, it is the judgement, sensitivity and

inventiveness of the developer that leads to success. However, in one area Sachs (1981) and Davies (1981) refer to opposing arguments to make the same point. Davies states:

> Systematic emphasizes craft; systemic emphasizes art. Indeed, the phrase "systems thinking" is rich in meaning, within the context of the art of instructional development. (p. 6)

Whereas, Sachs states:

> Instructional development is a systematic approach for improving instruction by making instructional design decisions that take into account many factors. (p. 8)

According to Davies definition, Sachs would be describing a craft; yet he argues for an art.

The term "systematic" was used by Medsker (1981) to establish instructional development as a craft. "Craft is defined as the creative application of a systematic method to make products of consistently high quality" (p. 11). She argues that instructional development cannot be a purely scientific endeavor because the individuality and creativity of the developer is very necessary to instructional products. A craft is scientific method creatively applied. It

lies somewhere between an art and a science.

Another alternative is to consider instructional development as a science and to describe it as a system. However, in his definition Logan (1982) also uses the term "systematic". Instructional systems development is defined as:

> A systematic means of analyzing instructional problems and designing appropriate solutions. It is a method for developing physical constructs to transmit the solutions and administrative schemes to control actual instruction. Finally, it is a strategy for evaluating and revising instructional products or procedures when faults are found in them. (Logan, 1982, p. ix)

The scientific process for instructional development includes front-end analysis, instructional strategy prescription, and formative evaluation (Reigeluth, Van Patten, & Doughty, 1981). Front-end analysis identifies important factors for designing instruction, such as learner characteristics, learner and societal needs, and the available facilities. Then, a specific solution to the instructional problem is hypothesized based on instructional principles and procedures. The strategy prescription, or hypothesis, is then

implemented and tested on a small scale to check its validity through formative evaluation.

Instructional developers utilize many analytical procedures. By performing these analytical procedures, the instructional developer is able to develop instruction effectively and efficiently in any area, even in content areas which are unfamiliar to the developer.

Diamond (1980) suggests:

> The instructional developer should not work in his or her own content area. The more in-depth knowledge the developer has of the content area, the more difficult it becomes to test assumptions and to identify long-term problems. While working with the content team, the developer is able to represent the student's perspective and see far more clearly what the student must learn and the problems that a student may face. In addition--and this is extremely important from the standpoint of being a change agent--by not being a content expert in the faculty member's field of expertise, the developer is far less of a threat and, as a result, can be far more effective. (p. 51)

The needs analysis helps to justify or decide what has to be done. Content analysis, another analytical procedure, entails analyzing non-procedural knowledge. Task analysis is also used. Jonassen & Hannum (1986) states, "Task analysis is an integral part of the instructional development process. A poorly executed task analysis will jeopardize the entire development process" (p. 3).

Jonassen and Hannum (1986) contend that task analysis consists of five distinct functions:

1. Inventorying tasks. This is the process of identifying the relevant tasks necessary for consideration for instructional development.
2. Describing tasks. Tasks listed in the inventory are elaborated which could include the steps in the tasks or the enabling objectives for the terminal objective.
3. Selecting tasks. Some tasks or task components are deemed entry level and some are deemed necessary for training.
4. Sequencing tasks and task components. This sequences the instruction of the tasks from general-to-specific or from simple-to-complex.
5. Analyzing task and content levels. Mental or behavioral performance required to acquire the

task or knowledge is described.

The task/content analysis leads to the development of objectives. Objectives are specific statements representing the tasks analyzed. According to Reiser (1987), behavioral objectives were used by educators as far back as the early 1900s. He acknowledges Tyler as the father of behavioral objectives. Several other prominent writers augmented the role of behavioral objectives in instructional development. Bloom (1956) had a major impact on behavioral objectives when he published the Taxonomy of Educational Objectives. Dick and Carey (1985) credit Robert Mager for his contribution to the use of behavioral objectives.

> Mager has influenced the total educational community through his emphasis on the need for clear, precise statements of what students should be able to do when they complete their instruction. (p. 97)

Once the task has been analyzed and the objectives have been stated, instructional strategies have to be planned. Taba (1962) describes a teaching strategy as a consciously formulated plan designed to produce desired changes in the learner. It involves determining the conditions and activities that will facilitate learning.

Another major component of instructional development is verification that the learners have successfully achieved the behaviorial objectives. Tyler was the first to advocate the use of criterion-referenced tests.

> Criterion-referenced tests are based on the objectives you have written, you develop assessment items that are parallel to and measure the learner's ability to achieve what you describe in the objectives. (Dick and Carey, 1985, p. 5)

Not only is it important to evaluate the learner's achievement of objectives, it is equally important to evaluate instruction. According to Reiser (1987), the terms formative and summative evaluation were introduced by Scriven in 1967. However, formative evaluation can be traced back to the 1920s when it was introduced to evaluate instructional films.

Heuristics and Algorithms in Instructional Development

The speculation of whether instructional development is an art, a craft, or a science can also focus on the possibility of the use of heuristics and algorithms when developing instruction. Romiszowski (1981) describes some precise heuristics that

instructional designers should use. He discusses the systems approach to instructional design as primarily a heuristic procedure.

> The systems approach is primarily an heuristic procedure. Step-by-step procedures exist for certain activities (eg for task analysis), but these only apply at the level of collecting or organizing information. (Romiszowski, 1984, p. 50)

There are key questions and actions the instructional developer should use in order to maximize the chances of a successful solution to the problem.

1. The first component is to define the problem. Questions to be asked are: Who sees the problem? What is the extent of dissatisfaction? What should be as opposed to what is? What is the probable cost of the solution?

2. The next area is to analyze the problem and select the solution. What is the underlying nature of the problem? What are the advantages and disadvantages of the possible solutions? What are the learners' entry level skills? What are the instructional objectives?

3. The third area for consideration is to develop the solution. Do learners exhibit any specific

learning style? What strategies will be suitable for the objectives? List the objectives. Test out the decisions as soon as possible.

4. The fourth area is to implement and test the solution. Who will be involved in operating the new system? What is the structure of the wider system into which the design must work? Inform, motivate, and train all who will be concerned with the new system.

5. The final section is to evaluate and revise. At what point should measurement occur? Can we make the measures reliable? Prepare the necessary evaluation instruments. Evaluate the collected data. Make necessary revisions to the system.

However, Terrell (1983) uses the instructional design model as an example of a quasi-algorithm. Quasi-algorithms have similar characteristics to algorithms, but may not lead to the same results every time. He argues that the model is similar to an algorithm because there are defined steps of what should be done. However, there are also numerous variables involved, such as available resources, that could lead to different results if the same model was applied by two designers.

The instructional developer can utilize algorithmic processes for content, strategy, and

production. Content applications of algorithmic processes is teaching students to solve problems by using algorithms. Students can subsequently learn to approach problem-solving by applying algorithms. Instructional strategy applications are procedures for teaching specific kinds of learning tasks. Generally defined tasks can use heuristics. As tasks become more defined, quasi-algorithms and then algorithms can be used to aid student's learning. Instructional developers can be freed from much of the sometimes tedious work in the actual production of materials by having others apply algorithmic processes to aspects of material production.

Gerlach, Reiser, and Brecke (1977) discuss the relative ease to derive correct objectives from an algorithm. The objective will be technically stated and easily communicated. Another aid of algorithms to instructional developer is the easy identification of required entry skills. Many algorithms include subroutines and these subroutines would constitute entry skills. Gerlach et al. (1977) also discuss the use of algorithms for prompting and, subsequently, for withdrawal of prompts. As the learner begins a new task, the discriminators in the algorithm can guide the learner to reach the solution. As the learner becomes

more familiar with the task, the discriminators can be covered until the learner is able to perform the task without referring to the algorithm at all.

According to Reigeluth, Van Patten, and Doughty (1981), one of the components of the scientific knowledge base for instructional development is prescriptive principles of instruction. Some of these include:

> 1. To facilitate acquisition of an idea at the application level of cognitive processing, provide examples and practice in addition to a statement of the idea.
> 2. To facilitate acquisition of any knowledge at the remember level of performance, provide a mnemonic.
> 3. To facilitate long-term retention, use a general-to-detailed sequence so that an idea or fact is not presented until after its "ideational scaffolding" has been learned.
> 4. To increase low motivation, include an incongruity that is related to an idea or set of ideas before presenting those ideas. (p. 20)

The Future of Instructional Development

Where is instructional development going? Gustafson, Tillman, & Childs (1991) predict what instructional development will look like in the year 2000.

Their first prediction is that there would be new instructional development paradigms. The designing and utilizing of new learning environments will require reconceptualization. The distinction between work and training will blur as embedded training and intelligent work environments emerge. In industry, the focus will be on performance technology instead of instructional technology. There will be a demand for decreased time and cost for instructional development. New models for instructional development will have to be formulated.

The demand for instructional development will remain in business, industry, government and military. However, there will be an increase in the demand for development in the school system and in institutions of higher education. In universities, the role of the instructional developer will, in most cases, be limited to large courses, distance education, and other unique conditions.

To provide for the demands on the instructional developers in the year 2000 and beyond, education of

instructional developers will have to move to incorporate business companies and other potential job sites. This will ensure that the students have access to the latest technology, to data bases of real products, and to opportunities to work and learn. Developments in learning theory, communication theory, social psychology, management science, organizational development and artificial intelligence will all contribute to the knowledge base used in instructional development. The instructional developers will have to be in the midst of these changes to keep current.

The Systems Approach of Instructional Development and Nursing

Saettler (1990) cites Ludwig von Bertalanffy as the founder of the general systems theory. Von Bertalanffy describes the theory as a "science of wholeness or holistic entities" (p. 353). According to Logan (1982), a system is a set of parts that relate to each other, individually or collectively, and operate in an environment for some purpose (p. 3).

> Systems theory postulates that there are universal principles that may be applied whenever one defines a system in any discipline. A system is a set of components

> that mutually interact to accomplish a set of goals. The system acts as a whole but is studied in parts to provide information about its components and their relationships. (Moughton, 1982, p. 471)

Salisbury (1989) describes general systems theory as an "interdisciplinary theory which consists of a set of concepts, constructs, facts, and terms which describe and explain the characteristics and phenomena associated with any system " (p. 42). Some of these concepts include feedback, goals, input, process, product, and output.

Instructional Development. Applications of the systems approach were first noted during the 1960s in the design of electronic, mechanical, military and space systems (Romiszowski, 1981). Systems design has also been applied to instruction. Instructional systems design is the use of systems models specifically oriented to the production of effective and replicable instructional programs (Salisbury, 1989, p. 42).

The characteristics of instructional systems design include an integrated plan designed to solve a problem; analysis of all components in a sequential, but flexible, order; research-based design procedures;

empirical testing followed by necessary revisions; and evaluation of the design model (Gustafson & Tillman, 1991).

Brown and Kennedy (1988) state, "Conceptual instructional development is, then, the logical application of the notion of systems approach" (p. 3). They perceive that instructional development has been functional in practice for too long . Conceptual instructional developers are needed to fulfill the goals of instructional development.

> While the conceptual instructional developer is involved in the usual identification of problems and seeking of solutions through the implementation of a chosen instructional development model, (s)he is also concerned with the ongoing functioning of the system. The conceptual instructional developer is concerned with maintaining the climate for change - energies are focused on continuous monitoring of the system so that potential problems may be anticipated. The conceptual instructional developer is concerned with maintenance of the relationships established during the instructional development activity. (p. 5)

Nursing. The foundation of nursing practice is the nursing process. The nursing process is a scientific problem-solving approach that nurses use when planning client care and making decisions in the clinical area. It is important that nurses be able to define problems accurately, make the best choice from the possible alternatives, safely implement a plan of care, and evaluate the effectiveness of the interventions.

The nursing process is a systematic framework composed of five phases: assessment, diagnosis, planning, implementation, and evaluation (some sources combine diagnosis and planning resulting in four components). The theoretical basis for the nursing process can be found in the systems theory, problem-solving process, decision-making process, diagnostic reasoning process, and information processing theory (Craven and Hirnle, 1992).

The nursing process is composed of a set of components which interact together to form an orderly whole. The phases have cyclical patterns. Each of the components interact with and influence subsequent components. The phases are subsystems that coalesce to create a whole which is greater than the sum of its parts. Input includes assessing the patient/client and

the environment. Throughput is the process of transforming, creating, and organizing input. In this part of the process, the nurse identifies nursing diagnoses and plans and implements nursing care. Output is the patient/client's resulting health status. Evaluation of the goals provides feedback to resulting revisions (Craven & Hirnle, 1992). Nurses must be proficient in this process to be effective practitioners.

Summary

Nursing education must consider not only the current social milieu but a forecast of future health care needs and delivery. To further complicate the planning of the nursing education program is the changing role of nursing as a profession. The impact of nursing education on the delivery of future nursing care is not to be undervalued.

> The changing demographics of the population, the changing work environment, and the changing student body call for a restructuring of nursing education. Nurses are needed who can introduce changes in nursing practice and in the organization of a resource-driven health care system, can add

> to the knowledge of nursing science, and can influence and shape national and local health policies. These goals call for an upgrading of professional nursing education and the construction of an educational system that makes sense. (Aydelotte, 1992, p. 475-476)

There is also the added challenge to prepare "empowered" nurses who will foster the profession. Hawks (1992) defines empowerment as "the interpersonal process of providing the proper tools, resources, and environment to build, develop and increase the ability and effectiveness of others to set and reach goals for individual and social ends" (p. 609). To educate empowered nurses,

> presupposes that the learner is involved in the learning process...Practice or action is critical to empowerment...A college of nursing that accepts a philosophy of pragmatism has student interests as a primary focus. The interests and needs a student brings to college are acknowledged and constitute a starting place for learning to begin. The student is seen as capable of growth and as a participant in the learning process. The student is encouraged actively

> to identify problems and develop projects for study...Such a teacher is flexible, versatile, and responds to student's needs. (Hawks, 1992, p. 613-614)

Reilly & Oermann (1985) (cited in Oermann & Jamison, 1989) state, "Knowledge of the subject matter and clinical competence are critical, but knowing how to teach is as important. A teacher with knowledge and expertise in clinical practice is not a teacher if unable to communicate that knowledge to students and facilitate their learning." Kemp and Rodriguez (1992) also speculate that nurse educators may not have the necessary skills to provide instruction that is consistent, systematic, and effective as they are usually hired to teach because of their strong clinical and academic backgrounds in nursing. These authors believe that an instructional development model is particularly suitable for nursing and can provide the means for accomplishing effective instruction and the means for meeting the future challenges of nursing education.

There are many benefits to engaging in instructional development. Once applied, the principles of instructional development assure congruence of objectives, instruction, and evaluation.

Instructional development increases the effectiveness, efficiency, and relevance of instruction.

Effectiveness means that more of the objectives are learned. Efficiency means that the objectives are learned more quickly and this can be related to cost savings. Relevance means the learners are learning what they need to learn. The careful sequencing of objectives assures learners have prerequisite knowledge and skills (Gustafson & Tillman, 1991). These benefits are fundamental to the process of analyzing educational problems and devising solutions to those problems--or should they be called educational challenges? The process of instructional development can greatly enhance the ability of nursing education to meet the challenges of future nursing education.

According to Kuhn (1970), "During the period when the paradigm is successful, the profession will have solved problems that its members could scarcely have imagined and would never have undertaken without commitment to the paradigm. And at least part of that achievement always proves to be permanent" (p.24-25). According to the future trends, the paradigms of instructional development and of nursing education are both changing and the new paradigm of instructional development may play an even bigger role in the new

paradigm for nursing education.

CHAPTER THREE

Methodology of the Study

Introduction

A qualitative approach was considered to be the best method of achieving the objectives of this study. Mariano (1990) describes the qualitative approach.

> The qualitative approach is interactive; context dependent; holistic; flexible, dynamic, and evolving; naturalistic; process oriented; primarily inductive; and descriptive. It has, as its foci, perspectives, meanings, uniqueness, and subjective lived experiences. Its aim is understanding. (p. 354)

The specific qualitative approach employed was ethnography. Merriam (1988) defines ethnography as:

> ...a set of methods used to collect data, and it is the written record that is the product of using ethnographic techniques. Ethnographic techniques are the strategies researchers use to collect data about the social order, setting, or situation being investigated. (p. 23)

This research study was an ethnographic case study. An ethnographic case study, according to Merriam (1988),

is "a sociocultural analysis of the unit of study. Concern with the cultural context is what sets this type of study apart from other qualitative research" (p. 23).

The study was conducted to determine the knowledge of nurse educators regarding the instructional development process and to determine how nurse educators planned instruction. The primary technique used was interviewing.

Merriam (1988) states, "Interviewing is necessary when we cannot observe behavior, feelings, or how people interpret the world around them" (p. 72). She discusses three types of interviews--structured, semistructured, and unstructured. Some situations are more appropriate than others for each of these types of interviews.

> Interviewing for case study research, especially qualitative case studies, may use this highly structured format to gather common sociodemographic data from respondents. For the most part, however, interviewing is more open-ended and less structured. Less structured formats assume that individual respondents define the world in unique ways. The purpose of the

> interview, then, is not to put things in someone else's mind (for example, the interviewer's perceived categories for organizing the world) but rather to access the perspective of the person being interviewed. (Merriam, 1988. p. 73)

The highly structured interview, in the form of a short questionnaire, was utilized to gather common demographic data from all respondents. The semistructured interview was used to elicit data regarding the respondents' knowledge of instructional development and to elicit data regarding their process of instructional planning. The unstructured interview, recommended by Merriam for exploratory purposes, was not deemed suitable for this study.

> In the semistructured interview, certain information is desired from all the respondents. These interviews are guided by a list of questions or issues to be explored, but neither the exact wording nor the order of the questions is determined ahead of time. This format allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic. (Merriam, 1988, p. 74)

The interview guide that was used was developed to allow open-ended responses. The guide was meant to be a framework for the interviewer to ensure that certain topics were discussed at some point during the interview. The interviews were driven by the respondents and they were free to move the interview in any direction. This freedom with the utilization of interview guides is also supported by Bogdan and Biklen. "Even when an interview guide is employed, qualitative interviews offer the interviewer considerable latitude to pursue a range of topics and offer the subject a chance to shape the content of the interview" (1992, p. 97).

Development of the Interview Guides

This study is one of a series of studies on instructional development knowledge among Newfoundland educators. To date, these studies have focused on the provincial school system as opposed to post-secondary education facilities. These other studies were implemented by Gallant (1989), Tobin (1989), Thomey (1991) and Graham (1991). Gallant focused on teacher-librarians; Tobin focused on primary/elementary teachers; and Thomey and Graham focused on high school teachers.

The structured interview guide, that is the questionnaire used to gather demographic data, was adapted from Graham (1991). His instrument had to be adapted to extract information regarding specific background data in nursing education. The interview guides used by Graham (1991) were considered to be too structured for the needs of the interviewer. However, his interview guides were used as a framework when the list of questions were developed by the interviewer (See Appendix B for the Interview Guide).

Sample Group

The sample group consisted of five respondents. There are five Schools of Nursing in Newfoundland with approximately 100 full-time faculty members. With the cooperation of the Directors of the Schools of Nursing, one faculty member was randomly selected from each school.

The Curriculum Committee in each school performs a major role in the planning and development of courses. Each committee is responsible for ensuring that all content is congruent with the school's philosophy and conceptual model. It also ensures that pertinent content is presented in the curriculum.

In the diploma schools, all faculty must submit

course outlines to their respective Curriculum Committee for final approval of course content, course objectives, evaluation criteria, and recommendations for textbooks. The course components must be approved at this level before the course is offered to the learners. In the baccalaureate program, the Curriculum Committee provides guidance for general content and broad objectives for the educator to include in the course. It approves the overall course content. Because all faculty in each school must submit to the same process for course approval, it was felt by the researcher that one faculty member from each school would be sufficient for the ethnographic study.

Administration of the Study

The study occurred throughout the winter, spring, and summer of 1993. The actual interviews took place in the spring and early summer of 1993. All interviews were audiotaped with the interviewees' written permission. Each respondent was given the option of having several short interviews or one extended interview. All of the respondents chose to have one extended interview. The interviews varied in length, but averaged approximately 3 hours per respondent.

Data Analysis Procedure

During data analysis, "The ethnographer then is concerned with meaning and understanding, recognizing that individuals interpret situations and act in accordance with their interpretation and understanding of each situation" (Mackenzie, 1992, p. 684). Merriam (1988) discusses ethnographic data analysis as beginning during data collection. During the data analysis, the data that have been gathered should be organized topically or chronologically so that "Patterns and regularities then are transformed into categories into which all subsequent items are sorted" (p. 131).

Analysis of the data gathered during this study included organizing the data according to the common elements of instructional development models. Themes related to these elements were then noted as the data were categorized.

CHAPTER FOUR

Report and Analysis of Results

Introduction

The objective of this study was to determine the knowledge of instructional development of nurse educators in Newfoundland. It was intended to study the knowledge each respondent had of the elements of instructional development and to determine what process each was using when planning instruction.

Organization of Findings

With the exception of demographics, the data were collected through semi-structured interviews. The interviewer asked only broad questions to facilitate the data collection. The respondents were free to give open-ended responses and the interview was directed by the respondents. There was no set order to the questions posed by the interviewer. The only instrument used was a pencil-and-paper questionnaire to identify certain demographic data about the respondent. This instrument was completed by each respondent prior to the commencement of the interview.

The respondents have been identified as Kate, Mary, Ruth, Sue and Jane. To maintain confidentiality,

the specific demographics for each respondent are not presented. Likewise, examples from specific courses and information that could identify the particular School of Nursing have been omitted.

Demographic Data

All respondents were women. The respondents had a variety of years as nurse educators ranging from 5 years to 12 years. Of the four respondents who taught in the diploma programs, two were presently teaching in Year 1 of their programs and two were teaching in Year 2 of their programs. The respondent from the baccalaureate program was teaching in the Post-diploma RN program.

Of the respondents, four had served on Curriculum Committees. All respondents had participated in the development/revision of courses.

The educational background of the respondents was somewhat varied. Four of the respondents has a Baccalaureate in Nursing. The other has a Bachelor of Science and a Bachelor of Arts. In addition to the baccalaureate degrees, four of respondents had completed some graduate work. One respondent has a Master of Nursing, one has a Master of Science in Nursing, one has a Graduate Diploma in Education

Administration and is presently working on a thesis for a Master of Nursing, and one has completed one graduate course.

Among the respondents, three had completed Education courses. One had completed a research course in Education, one had completed 2 Education courses, one of them being in Instructional Development, and the other had completed 8 Education courses as well as a course in Program Evaluation as part of her course work for a Master of Nursing. None of the respondents had completed courses in Curriculum Development. All of the respondents have taken university courses within the past 5 years and two are presently attending university on a part-time basis. (See Table 1)

Instructional Development Knowledge

The interviewer's opening question tried to discern what the respondents knew about instructional development before the interview led to the discussion of the various elements of the instructional development process.

Kate: The first respondent began by saying that instructional development meant "developing the how, the when, and the where and the process of how you would teach--be it a course or a lecture or whatever."

Table 1: Demographics of Case Study Subjects

	N = 5
Teaching Background	
5+ years teaching experience	5
Teaching assignment	
Year 1	2
Year 2	2
Post-diploma baccalaureate	1
Experience on Curriculum Committees	4
Experience developing/revising courses	5
Education Background	
BN	4
BSc/BA	1
Graduate Study	
M.N.	1
M.N. (courses)	1
M.Ed. (courses)	1
M.ScN.	1
Completed Education Courses	3
Instructional Development	1
Program Evaluation Course	1
Completed university courses in the past 5 years	5

Kate was not able to discuss any instructional development models or theorists. However, she did say that she worked from her own model. "I have done a lot of reading over the years. I do work from a model as such--from my reading and from my experience." Kate says that the knowledge she has accumulated about instructional development has been through self-education. "I've looked at the literature written, both in the past and currently, about education in

general and about nursing education, and the methodologies about teaching the type of content."

According to Kate, nurse educators must be able to develop instruction according to some plan or model. "Having the knowledge of nursing does not make a good teacher. A good clinical nurse is not necessarily able to facilitate a student's learning." Nursing education, she felt, was more than telling the students what the educator knows about a certain topic.

Mary: To this respondent, instructional development means "if you had to teach a course, what's the best way to go about teaching the course--what's best for the students. Or the best way to get across your lecture topic, whether it's group work or straightforward lecture." Mary was unaware of any instructional development models or any theorists associated with instructional development. Mary attained her knowledge of instructional development from her journal readings and from her teaching experience.

Ruth: Ruth defined instructional development as the following:

It means the approach you take to develop a

> learning session, whether that's a whole course or a workshop or just one class. It's the approach you take to figure out what it is you're trying to teach, how you're going to teach it, and how you're going to evaluate it. That would be the whole package.

This respondent was also unable to verbalize any instructional development models or any theorists related to instructional development. According to Ruth, her knowledge of instructional development has come from the education courses she completed in university, her own reading since then, her experiences as an educator, and her experiences as a student.

> Some of what I bring to the classroom comes from my many years of experience as a student and from hundreds of professors that I've seen and the things that they did that I thought worked and didn't work. I think that it had a strong influence. I try to think what it's like being the student. I believe in trying to reduce their stress as much as I can so that they can actually learn.

Sue: According to Sue, "Instructional development is the process and the methodology by which

the course content will be delivered. It's that whole process of developing the instruction and the delivery of the instruction as well and how I would go about doing that."

This respondent, like the others, was unable to discuss any instructional development models or theorists. She said that what she does know about instructional development and planning has been acquired from her own reading and from senior faculty when she first began teaching.

Jane: Jane approached the term instructional development from two perspectives.

> Instructional development for me would mean that I would have to develop courses in instruction, how to teach, or what's involved in the courses that you're teaching, and how you're going to go about it. To a learner, it means a lot because they would be aware of how they are going to learn, how instruction would be presented to them, and what part they're going to have to play in that. Will they have, for example, independent study to do? Will they be given guidelines as how to carry out that independent study?

According to Jane, she has completed a lot of research related to teaching on her own and she learned about teaching strategies from senior faculty when she started at the school. She was unable to describe any instructional development models or theorists. However, she did report reading "Bevis and Sandra deYoung who wrote a book about strategies for teaching."

Instructional Development Process

The interviewer endeavoured to ascertain the respondents knowledge of the elements of the instructional development process.

Instructional/Behavioral Objectives. In this section of the interview, the interviewer determined what the respondents knew about behavioral objectives and the role the behavioral objectives played as they developed instruction.

Kate: Kate uses objectives extensively. She says,

> We teach in a behaviorist system, so we teach by objectives. It's almost a prerequisite that you do that. Yes, I use them because I do say specifically what it is that I am

> intending to teach and what I want the student to get out of it. When nurses started to look at what it is they do, objectives were adopted so we could say this is what a nurse is and this is what a nurse does. We have to be able to look at the behaviors and write them in measurable terms.

According to Kate, the students receive a copy of all objectives for the classroom, laboratory, and clinical settings for every course in the program. She was unable to discuss any theorists associated with objectives, but did say "It's all based on the Tylerian model."

She believed that objectives had both positive and negative effects.

> I think we have restricted ourselves because of it. I think you need a certain amount of it. We need some kind of framework or we'd all be gone helter skelter. But I think we can also bog ourselves down. It could restrict the student to doing what you want--that's what I mean by being restrictive. The student might be so caught up in measuring up to those objectives that they might lose all sense of initiative, creativity and

independence.

> You need a certain amount of structure that objectives can give you and then you need to set it up so that students can see the need for them to learn independently, the need for them to develop the whole attitude towards study which I'm not sure they come out of the school system with. They must really want to learn. The student needs to be inquisitive and want to learn and not just want to hear what I'm going to speak about at any one time.

Kate has adapted or adopted objectives from the textbook or from the Instructor's Manual accompanying the textbook. She has also developed objectives on her own. All objectives have to be approved by the Curriculum Committee.

Mary: Mary uses objectives extensively because it is the School's policy to utilize objectives rather than a desire of her own to use them.

> I felt objectives boxed you in too much. If it was important for me to lecture on it, it was important enough to know. I find our students are geared to studying Objective 1,

> Objective 2 and that's it. I don't agree with that way. Now we're getting away from specific objectives, but I find we're still too boxed in for my liking. We have more leeway now. Lectures are done in a more general way. I cover some specific things in the lecture, but I talk about the topic more generally as well. There is general discussion within the lecture, but there is no place in the specific objectives for that, I find. We have to "Define this" and "Do this". Most people here like the objectives, but I never did.

According to Mary, objectives have been used in the School for an extended period. She says that most objectives originally came from a text.

> Objectives were originally developed by the instructors. But they weren't made up by the instructor. They came from books. Every year, we fix up our objectives to go with the textbook we're using. However, some objectives come only from the instructors.

Although Mary was unable to recall any specific theorists related to objectives, she remarked that there was a certain way to write objectives in the

school. All objectives are reviewed and approved by the Curriculum Committee.

> We all write objectives the same way. They're all fairly specific. Then we use the words List, Discuss, explain, define--all your basic objective words. Much the same as you would for patient objectives--realistic, specific, and measurable. You know if you met the objectives. If you went in and listened to me lecturing, you could say, "Here's the list of objectives, and Yes, she defined this and Yes, she explained this."

It's easy to see if I met my objectives. Objectives are used extensively for evaluation, particularly in the clinical setting.

> There are objectives for each clinical area, and there are a set of terminal objectives as well for where they should be at the end of the year. The students get a copy of all content and clinical objectives, so they know what's expected of them from day one.

Ruth: Ruth tends to focus her instructional planning on objectives.

> I'm very objective oriented. In my Master's

> program, I did a course on teaching. That's where I learned all about writing objectives. I have found nurses to be very behaviorally focused. They want to know exactly what they are going to be able to do--literally "You will be able to...".

According to Ruth, she gets objectives from several sources. She states:

> Redman's book has a relatively good list of some terms that you should and should not use when you are writing objectives. I also get the objectives from the textbooks. They have objectives for the chapters as well as the Instructional Guides in the Instructor's Handbooks that go with them. I tend to read a fair number of books apart from the one the students are assigned. So I often go through those and choose objectives. I don't always use them as they were written, but they give me ideas of what others think are the most important concepts or ways of phrasing certain things.

Objectives are used in the evaluation process, both clinically and academically. The students receive a list of the objectives at the beginning of each term.

> I try to make the objectives very outcome focused rather than process focused. I do use my objectives to set my exams so they have to be very measurable. How do you test "Become sensitive to"? So, I tend not to do that. They can describe, they can list, they can analyze.

With the exception of Redman, Ruth did not discuss any theorist associated with objectives.

Sue: Sue also uses behavioral objectives extensively.

> When I think of objectives, I automatically think of behavioral objectives although I realize that's not the only kind of objectives there are. I think in terms of behavioral objectives whereby an instructor can outline subject matter that has to be taught or behaviors that have to be seen in order to realize that the student or the learner is actually meeting the goals of the program. I think in terms of central or broad objectives and I also think in terms of very specific objectives which we use in writing for clinical and academic

achievement.

This respondent mentioned Bloom's taxonomy and recounted where she had originally learned about objectives.

> When I think of objectives, my initial use of objectives as an instructor was very much guided by Bloom's taxonomy. I learned about objectives through trial and error after I went to work in the School. My knowledge of objectives may still be very limited, but at least it's better than when I went to work in the nursing school. We can write academic objectives for subject matter and we can also write clinical objectives or practice objectives for specific behaviors or behavioral achievements.

Sue verbalized that she likes to use objectives, but she did comment on some limitations.

> I like objectives. I think students like objectives as long as they are clearly written, not ambiguous. I could say, though, that it is sometimes difficult for objectives to be as specific as you really need for them to be, particularly in terms of clinical practice. I have found in the past that

> although clinical objectives are helpful and useful, often times we haven't found them as specific as we would like them to be to guide us so that we feel we are evaluating the students from the same perspective and to the same extent.

Objectives are a central component to the evaluation process in the school where Sue teaches. The students receive a copy of academic and clinical objectives at the beginning of the term.

Objectives are usually developed by the instructors in Sue's school and, like the majority of the other schools, the objectives have to be approved by the Curriculum Committee.

> They would be developed by a subgroup that would look into more detail at the specifics of the content we were looking to add to the curriculum. It would usually be a subgroup that would do some research, some review of the literature in that area, and develop a rough draft that would come back to the larger committee to see if we were on the right track and then to finalize them from there. I can't recall ever taking objectives from any other source other than actually

developing them.

Jane: Jane uses objectives extensively. She began her discussion of objectives by defining objectives.

> Objectives are guidelines that are written in a certain way that shows exactly what it is that you want to accomplish, how you are going to accomplish it, and in what length of time you're going to accomplish it.

She described the various types of objectives she knew as the following:

> There are short-term and long-term objectives. There are also behavioral objectives. Mostly, I was involved in behavioral objectives for the learner. What it is you want that person to accomplish and how. There are also learning objectives. Not saying what you want the person to do, but what you expect the person to learn from the lecture. But I can't remember the exact name of them.

Jane confirmed that she thought objectives were necessary for lecture preparation and for the evaluation process. The students receive a copy of all

course objectives at the beginning of the term.

> The objectives for my classroom are a guideline for my lectures. How I am going to present the lecture; what it is I am going to present; and it is a guideline, for me, in knowing that when I finish this lecture, this is what the student is going to get out of my lecture. I know exactly what I want the student to gain from my lecture. I don't know if they will get it all, but there is a way of knowing that later when you do the evaluation.
>
> For lab, the learning objectives give them guidelines as to what it is that I want them to learn from the module. The objectives also state exactly what it is they are going to have to demonstrate; how they are going to do it; and, if it applies, the length of time it will take to do it.
>
> We have objectives for clinical. To me, they are guidelines and directions for both me and the students so we both know what we set out to accomplish. Afterwards, we are able to look back at that and evaluate it and see if we fulfilled all those objectives.

Although she verbalized the benefits of objectives, Jane discussed one limitation.

> I think objectives are great, but we may box ourselves in. Not allowing ourselves freedom as to how we're going to do something or maybe we're a little bit too strict if we stick to the objectives. If you stick to the objectives, you may be stopping a person's creativity--I don't know. I wonder about that sometimes. Or interfering with a student's creativity. You have to be flexible.

Jane was unable to discuss any theorist related with objectives. However, she did describe the process she uses when she revises or develops objectives. She stated that she is strongly influenced by the writings of Bevis and her comments on objectives. She said she reviews other course objectives, the Terminal Objectives for the program, and the conceptual framework for the School before she revises or develops objectives as needed.

Learner Analysis Characteristics. In this section of the interview, the interviewer sought to determine if the respondents considered their audience during

their development of instruction and, if so, at what point in the development.

Kate: Kate discussed learner analysis characteristics as "Prerequisites--where the student is at". She described her learners by stating:

> We used to have students in the same age range, around 19-20. They're pretty concrete people at that age and we're up there trying to conceptualize. Now we have a bigger cross-section in terms of age range and they're also coming to us with various levels of post-secondary education, so we are looking at a different type of student. You're hitting a variety of developmental stages as well as a variety of learning styles; but probably more of the people are rather concrete, rather idealistic.

Kate uses this learner analysis when considering teaching methodologies.

> Well, they all have their own learning styles. They're all different. Some need the visual aspect, some need to go off by themselves, some need more direction than others. As a classroom teacher, you have to be aware of all those things and be aware of

> your own teaching learning style because obviously that's the way your going to try to teach because that's what's going to come naturally.

Mary: This respondent discussed learner analysis only briefly. She described her learners by saying:

> They're young adults, yet they want everything given to them--spoonfed. Our students want a good set of notes. They want to know what's important for the exams. That's another reason why I disagree with specific objectives.

This respondent has noticed a change in her learners over the past several years and remarked on some of the changes. These comments reflect the impact these changes have had on the program, but not how the program has changed in response.

> We have more mature students now, they're not straight out of high school. Some are single parents. They are under more pressure at home. They can't give 100% to the clinical area because of home pressures. The quality of their written work is not as good.

> Another thing that has changed is their attitudes. It's becoming more business oriented. Nursing has become just a job with fairly good money for some of the students. A lot of the genuine sincerity and caring is gone for many of the students.

Ruth: This respondent assesses her learners and uses this information when planning teaching methodologies.

> They come from a wide variety of backgrounds. Most of them have been out of school for more than 10 years. I had to consider their prerequisite knowledge, and I found I had to do a lot of review of certain topics in class--more so than I had expected. I take into account their clinical areas and try to make the examples I choose relevant to them in their clinical areas.

Sue: Sue discussed her learners at length. She described the learners and how they had changed over the past few years.

> We are getting more mature students, we are seeing more males. They're much more

> political-minded and politically motivated. Geographically, we're getting the same kind of group. But we are getting more single parents. There are a lot of married women in our classes and these are often women with families who live in other areas of the province. The students that we have taken in to our program over the past few years are certainly higher academically than the student would have been 10 years ago. The students often have several university courses and if they come right out of high school, they certainly have a high average.

Sue also discussed her learners in terms of their learning styles and their preferred teaching style.

> In terms of their teaching and learning and their desire for specific kinds of instruction, I would say that students want everything lectured and they want to do as little as possible through any kind of independent study. They only want the bare bones. The stuff that is really important, to use their words, the stuff that's going to be tested. In the last year or so, I have seen a difference in the students. There has

been much more interest compared to prior years in group work, poster presentations, and group projects that have been assigned.

According to Sue, the changing students has been a focus of discussion at the Curriculum Committee level. However, she was uncertain if it has had the impact on the curriculum that it should.

> I guess it has had an impact. Curriculum revision is ongoing and we have looked at the demographics of the learner in that whole process. We've certainly recognized the need for additional counselling. It hasn't affected course content, but perhaps it has affected the way we, as teachers, deliver the material. I guess it's kind of a reciprocal process. You tend to meet the needs of the particular students you have at that time. I guess we have made some adjustments in trying to tend to the mature audience rather than the younger learner in attempting to give them a variety of teaching methods and in giving them some say in what those teaching methods will be.

Jane: This respondent described her learners

similarly to the other respondents.

> We have students just coming out of high school, we have students coming to us with some levels of university, we even have students coming to us with a university degree. We have mature students who have been out on their own for so many years. It's a mixed variety of students. We have males and females. We have students from high economic backgrounds and from low socioeconomic backgrounds.

Jane deemed it important for the learners' characteristics to be considered by the Curriculum Committee and by the faculty when they were preparing lectures.

> We have to take into consideration all those backgrounds of the students because that has an effect on how that person learns. All those people with different backgrounds have different ways of learning, especially the adult learners. We have tried to make changes in the flexibility of the program because of the changes we have seen in the student population.

When doing up a new lecture, I have to

look at what the student has learned before coming to my class so that I can build on that and don't repeat it. I want to get it across as clearly and uncomplicated as I can so they can really understand it. I want to make it as interesting as I can. I look at how I am going to present it, what methodologies I'm going to use. I look at what Bevis writes about learning theories and Knowles theory of adult learning.

Teaching Methodologies. The focus of this portion of the interviews was to determine the types of methodologies and strategies the respondents used when teaching.

Kate: This respondent said that she does a lot of lecturing in the classroom. However, she is primarily concerned with using techniques that encourage the students to apply knowledge and to think critically.

I believe in making students think for themselves and, in a classroom of 80 or 90 students, that's not always easy to do. It is a bit of a challenge. But if you ask them to individually answer a question, take 5

> minutes, have them write down their answers individually and then you can spotcheck to see what kinds of answers there are. They can be divided into groups and given a situation they have to think about and work through using the information you've covered in class or by having to look up more information. They can be given questions ahead of time that they can research and when they come together in a large group, they can discuss some of the answers and share their own ideas. They have to do more than just memorize facts; they have to apply those facts or it is lost soon after.

This respondent also uses overheads and problem-solving activities. She encourages independent study, small group activities and, sometimes, role-playing. Although this respondent knows about games and can visualize a place for gaming in the classroom, she does not facilitate gaming herself.

When deciding on teaching methodologies to be used in the classroom, Kate reported that she considers the type of content to be presented, the available space and time, and the number of students in the group.

> You have to look at the type of material you

are presenting as well as the student. Some material lends itself better to some strategies. Again, it depends on time frames. Sometimes, with the classroom time frame, it might be just a matter of presenting the material. When you're looking at the content, you have to see whatever fits. Use the methodology to your advantage if the time is there.

The size of the group, the size of the room in terms of space, the set-up of the room--sometimes you don't have a lot of choice about changing the set-up. The heating and lighting and all that comes in to play. The whole atmosphere that the teacher creates. If you're just going to stand there and belt out the facts, then that's all part of the environment. How you present yourself is important; for example, a little levity sometimes goes a long way.

This respondent also discussed clinical learning experiences.

What would be the ideal would be to look at each student individually and to see what types of experiences they need to continue

> with their learning. What happens, in fact, is you select the best assignments there are at the time to fit the learning experiences to meet the objectives which are already laid down. So, from that point of view, you are meeting their needs in a general way. I'm not sure we do it on an individual basis. In terms of interacting with the students and trying to set up that learning experience, I try to make the students responsible for that learning.

Mary: In the classroom setting, Mary reported that she uses independent study, guest speakers, overheads, lecture, handouts, discussion, videos, and reserve materials. However, because of the time constraints, most of the classroom strategy is lecture. Mary also reported that lecture is what the students want. "Also, the student wants a good set of notes--what they'll be tested on in the exam. Plus, our numbers are really high, over 80 students."

According to Mary, the amount of time available for a particular topic is a concern. "We still find the time constraint really bad. We don't have a lot of time for creativity." She went on to describe how her

method of presentation has changed, despite time restraints.

> But I find my presentation has changed. I do a lot of overhead presentation, and I find my overheads have a lot less data on them than there was five years ago. A goal for me is to get less and less on the overhead and I've done that gradually over the years. I also see more [student] involvement in class.

Mary related that there are smaller groups in the clinical area. This, she felt, opened more opportunities for creative teaching methodologies. In the clinical area, crosswords, setting up teams and asking questions, role-playing, patient presentations, case studies, literature searches, and quizzes are all used. Clinical conferences (small group discussions) are also used as an adjunct to classroom teaching to discuss issues arising in the clinical area and to facilitate students to apply classroom knowledge to the clinical area.

Ruth: Ruth reported that a variety of teaching methodologies was important to the students' learning. She listed the types of teaching methodologies she utilizes. She recounted using one-on-one discussion

for clarification and expansion, independent reading, lectures, overheads, small group work, class discussion, seminars, teacher questions in class, peer interaction, use of blackboard, giving an overview of an upcoming class, and computer-assisted packages. The two strategies used in the clinical area were one-on-one interaction with the student and post-clinical conferences.

Sue: This respondent also related that a variety of teaching strategies was desirable because of the variety of learners in the classroom. The students have an input into the presentation methodologies for some topics. She recounted the methodologies she used as lecture, tutorials, overheads, group discussions, learning labs, demonstration, independent study, videos, slides, posters. Clinical conferences are used in the clinical area to expand on classroom theory and to discuss issues.

Jane: According to Jane, teaching methodologies she has used are lecture, games, demonstrations, discussion, overheads, and models. In the clinical area, conferences and case studies are also used. She stated that she tries to use a variety

of teaching methodologies with certain considerations.

> The number of students in the group influences the teaching strategy (large groups). What kind of topic am I presenting? What kind of strategies does it lend itself to? The other thing I look at is the time I have to present the topic.

Evaluation. In this segment of the interview, the definition of evaluation was elicited as well as the framework in which evaluation was endeavoured.

Kate: Kate defined evaluation in the following manner:

> Evaluation is a collaborative process. The student must be able to self-evaluate. The student has to have some insight into how he or she is progressing. If you have lost that, then evaluation doesn't take place at all. It becomes very subjective. You need the input from the learner as well as the teacher and the teacher can be any number of people, not only the instructor--it can be peers and other professionals in the clinical situation.

According to this respondent, formal academic

evaluation is accomplished through examinations and assignments.

> Sometimes, you have to wonder if this is information that's going from the textbook to the student's exam paper and how much is sticking in between. That depends on the type of exam. Our trend now is to ask questions that makes the student think and apply the knowledge which is a better measure. You have to be very careful how you word them.

All examinations are reviewed by an Examination Committee before being administered to the students. There are guidelines followed by all the faculty of the school concerning the percentage of questions that should be allocated to each phase of the nursing process and the percentage of questions allotted to the different dimensions of learning. The assignments tend to evaluate application of knowledge and critical thinking.

According to Kate, the exam questions should be developed when the lectures are in the process of being prepared. "Hopefully, you will test what is relevant so when you are writing your lecture is when you are most focused about that topic. It has been well

written that the ideal time to do exam questions is when the lecture is being written." The respondent continued by saying that unfortunately this is not always possible, particularly with lectures early in the term.

According to Kate, in the clinical area, students are evaluated through one-on-one interviews, through self-evaluations, and through teacher observation. The students receive formative and summative evaluations. The evaluation is based on objectives. "They have certain behavioral objectives that they must meet in order to be successful. If a problem should arise, they will also have individualized objectives."

Mary: Mary reported that "All our classroom evaluation is purely academics. It's a grade system with a computer printout and you can't do anything else with it. That's it. You write the exam and you get this mark."

Exam development follows the nursing process and exams are reviewed by an Examination Committee. Mary prefers to develop exam questions after a lecture has been given in class.

Exam questions are sometimes done before a lecture and, sometimes, they're done after a

lecture depending on where your lecture content falls in the term and when the exams are being written. If you have to do your exam questions first, then you have to make sure you cover that material in class. I prefer to lecture and then do my exam questions. If I do them before I lecture, I find I emphasize that material in class. If I do the lecture first, everything is given the same emphasis. All of the exam questions will come out of the objectives.

Mary recounted that clinical evaluation is also based on objectives.

Students are evaluated formatively and summatively (mid-rotation which is verbal and end-of-rotation which is written). There are criteria to follow when evaluating the student but, sometimes, we find the clinical objectives are not specific enough.

Ruth: This respondent defined evaluation as: In the context of the classroom, it is testing their knowledge. Clinically, evaluation has three meanings. One is me evaluating the student's psychomotor skills,

> their thinking skills, their knowledge, their communication skills. Another one is the student evaluating the patient's progress and whether the nursing objectives were met by whatever interventions were implemented. So we talk a lot about them evaluating outcomes of the nursing practice. The third part is I really try to get the students to self-evaluate and evaluate the process of learning as well as how well they did. Often they tend to say they didn't do something very well, and yet if they look at the process they realize that they did it faster than they did before, that they're a little bit more comfortable doing it, and now they know what they would do next time.

Ruth stated that her exams are criterion-referenced. All the answers to the questions can be found in the textbooks. The exam tests mostly knowledge and the application of that knowledge.

> When I do my tests, they're all objective-based. When they are studying if they learn the material to answer what that particular learning objective was, then they probably know to answer the exam question. You can

look at any of my exam questions and find the objective that it is testing.

Ruth stated that the clinical evaluations are also objective-based. "The students' evaluations are based on criteria or objectives. These criteria are given to the students and reviewed with the students at the beginning of the course." She did say that the main evaluation was summative because it came at the end of term. However, the students do participate in a formative evaluation as well. "They're given a verbal midterm evaluation which says this is the progress you've made so far; these are the things maybe you could work on; you seem to be doing O.K. in this area."

Sue: According to Sue, "Evaluation is an internal and external overall program evaluation and then specific evaluation of your students in a summative and formative sense." As with the other respondents, the students are evaluated academically and clinically.

Academically, the students are evaluated through quizzes and exams each semester. For each question we put on a quiz or exam, we have to note the objective that question is testing. I would say our tests are norm-

referenced.

Sue did not seem to fully understand the difference between norm-referenced and criterion-referenced. When asked why she thought the exams were norm-referenced, she replied, "We're going to criterion-referenced, but we haven't gotten there yet and we're still asking the same kinds of questions as when I was in nursing school." It should be noted that each exam question is referenced to a content objective.

This respondent said she preferred developing exam items after the corresponding lecture had been given. However, during the interview, she did say that maybe faculty should be able to formulate exam questions before the lecture was given.

> What I have said in the past is that I wish I didn't have to have the questions done before I had the topic taught. But reflecting on it now, I guess maybe we're not being really objective and maybe we don't really know where we're going or what we're supposed to be at if we're not able to have the item developed before we have the material delivered. If we are being totally objective-driven, we probably should be able to have the item developed beforehand.

> When the items are developed depends on the timing of lectures and the timing of quizzes and exams. If the lectures are early in the term, the lecture may be done before the item is written. If the lectures are later in the term, the items may be developed before the lecture is given.

Clinically, the students' evaluations are objective-based and do have elements of being formative and summative, although Sue did not use these two terms.

> Clinically, the students are evaluated at the end of each clinical rotation by giving them verbal feedback on the their performance in that time frame. Then, at the end of the level which usually consists of at least two and possibly three rotations, we would give the final written evaluation which is objective-driven. The students receive their objectives at the beginning of the level.

Jane: Jane suggests that evaluation is a measurement of how students are meeting objectives. This respondent evaluates students both clinically and academically.

Evaluation is based on the objectives.

Evaluation in class is based on the exams.

In clinical, we have criteria based on objectives for clinical. The students have a copy of the objectives and guidelines before they go into clinical and it's explained to them so that they know what they are being evaluated for.

Jane does not develop exams by herself. Several instructors have input into the students' examinations.

We use Bloom's taxonomy for blueprints for exams and we follow the nursing process. All questions are multiple-choice and situational. We get guidelines from the Coordinator as to how many questions are needed on a lecture topic. The instructors do have some input as to how many questions are needed per topic.

According to Jane, the students are evaluated formatively and summatively in the clinical area.

Clinically, students are evaluated throughout. They have the summative evaluation at the end of the course. But we are evaluating them as we go along, so that if a student is noticed to be weak or needs

help, they are told right away and told what it is we've planned to help them improve.

Revision. Revision was the next part of the instructional development model to be explored with the respondents. The interview sought information about when, why, and how the respondents revised courses.

Kate: Revision, for Kate, included revising objectives, evaluation methods, teaching strategies and resources. All major revisions have to be approved by the Curriculum Committee. Kate discussed several reasons for revising a course. The first reason she discussed was to ensure the person teaching the course knew exactly what the course entailed and agreed with it.

In order to work with any course, you have to feel some sense of ownership. You have to feel you know and understand what is being done in the course. It is very difficult to pick up a course that has been developed by someone else--what will be taught, how it will be taught--and run with it.

Another justification for revising a course was interrelated with the first one.

The course would need revision if the way it is presently setup didn't seem to be working-

> -either for me or for the students. Student grades on a course is a factor if the whole class is having difficulty. But what the student is actually getting out of the course is just as important in regards to their ability to think critically and to benefit from independent study. Students write a formal evaluation of each course. Certainly, we try to incorporate that. We take their comments, criticisms, and observations very seriously.

Yet, another consideration given for changing a course was the length of time the course has been taught. "After a course is taught for several years, it needs to be looked at in terms of change. You're getting a different student." Kate also discussed revisions as being an integral part of the school's Program Evaluation. "Program Evaluation is continuous and change is necessary because of ongoing evaluation. Maybe not change is necessary, but revision is necessary to keep up with the changes that are taking place."

Mary: This respondent communicated that one of the most important reasons for revisions is to keep

current and up-to-date. Revisions should be contemplated each time the course is about to be taught. The other reason she gave for revising a course was related to feedback from the students. The students provided feedback on all aspects of the course, and all aspects were susceptible to change. "The students get to do a course evaluation after every course. The course evaluations are reviewed and we make changes to the course within reason." The faculty also evaluate the course and revise the course based on their own evaluations.

Mary also related that students evaluate the faculty. She said she reads their comments about her teaching methods and takes these comments into consideration when she plans future classes.

Ruth: This respondent also utilizes the students' course evaluations when making revisions to the course and to her teaching style. According to Ruth, a course needs to be reviewed yearly.

> Every year a course needs to be reviewed and some changes made based on what worked and what didn't work and you have to add some current literature to keep it up-to-date. If you are looking at major content revision,

> then I'd say you need to look at it every few years, every 4 or 5 years you probably need to go back and see if the whole thing is still relevant. Has it shifted from the original plan? Which I'm sure is what happens if everybody changes it a little bit every year. It looks almost the same as it last year, but somehow it doesn't look anything at all like it did five years ago.
>
> Lectures need to be reviewed and edited each time they're going to be given for better examples, etc. Also, after you've done something 3 or 4 times, you get bored with it so you need to change it.

Content and objectives, teaching strategies, learning resources, and evaluative methods can all be revised.

Sue: Similarly to the other instructors, Sue also uses students' course evaluations when considering course revisions. Again, all components of the course are evaluated by the students. "The results of the course evaluations are compiled by the coordinator and then distributed and discussed at a meeting. We do look at their preferences in terms of teaching methods that they seem to like or dislike." The other reason,

according to Sue, for revisions would be "an obvious change in trend that was happening in society". She stated that courses need to remain current with societal trends in order to facilitate a comprehensive education for the students.

Sue felt that course revisions were necessary, but should only be initiated when absolutely needed.

> A course shouldn't be revised for the sake of revision every year. But I think that a course needs the evaluations looked at every year and the course reviewed for possible revisions every year. Revision should be done on a "need to be done" basis rather than a "nice to be done".

Jane: Jane also uses students' course evaluations as well as faculty's course evaluations when planning to revise courses. About the faculty she said,

> After going through the course we would see areas where we need to improve. We look at maybe there was something we had difficulty getting across to the students; maybe there's too much material in the course and we need tc cut it a bit; maybe there's not enough and

> we need to add something else. Again, you have to keep up-to-date with the current literature.

Jane also referred to the students' course evaluations. "If a student has made a comment, and a lot of students have made the same comment, then we know something needs to be done to improve it."

Jane also commented on when and how often courses need to be revised and where these revisions should start.

> Courses need to be revised every year. I start with my objectives first. If I want to revise my objectives, that's going to influence my content and everything else. I'm really in to writing them first because I want to know what it is I want to do, what it is I want to get across.

Instructional Planning. This portion of the interview was included to determine how the nurse educators who participated in this study actually planned instruction.

Kate: Kate reported that planning is essential to providing good instruction and that "Planning occurs before the course starts. Otherwise, you are flying on

a wing and a prayer." The students in this course receive, at the beginning of the term, a course outline which includes the course and content objectives, teaching methodologies which will be used, and the evaluation scheme for the course.

One of the major considerations to planning, for this respondent, is the amount of time she has available.

> It depends on the time. Time has become a luxury. If I don't have time, I just jump in and do it and wonder after. If I have time, I know what I like to do. To start I do a lot of thinking about it, a lot of reading about it, and a lot of reflection about past experiences. I have to see the outcome first and if I have time to do that I feel better about it because if I can see where I am going with it, then I can get down to the nuts and bolts after.

Kate then expanded upon her concept of planning.

> You have to look at what you want as the end product and you have to see where the student is coming from and I think you have to look at both ends before you can do all that stuff in the middle--looking at the prerequisite

courses, looking at what courses this one is a prerequisite for.

To begin planning, Kate reviews the literature and the textbooks. She looks at the philosophy, conceptual framework and curricular threads of the School and determines how these elements can be pulled into the course she is teaching. Her next step is to review the objectives (and to revise them if necessary). She also considers the prerequisite knowledge of the learner.

Kate develops a written plan which consists of a calendar of events such as how long she will spend on each unit, when certain activities will be held, and when the examinations will be. Kate stated that she sequenced content by "going from the general to the specific. Generally, they learn the facts and then they go to the specifics which will be an abstract or conceptual application." She also develops specific plans or "lectures" for each classroom session. The lecture includes important points to be covered in class, overheads to accompany the lecture, and any audiovisual aids or critical thinking questions to be included in that class.

Mary: In Mary's school, the Curriculum Committee decides on the basic format of the course.

Then, the nurse educators develop lectures to meet the objectives. The faculty are permitted input as to the topics and objectives in each course. "We talk a lot about topics. We have so much input, but we don't make the final decision about what we teach and what goes into the curriculum."

When discussing sequencing, Mary discussed three ways that content is sequenced.

> The sequence of topics can be decided and changed by the instructors. Sequence is usually based on the types of experiences students will see in clinical. Topics are also sequenced by doing content that is basic to other content first or by doing content first that students usually find easier.

Mary related the process she goes through when planning a lecture.

> I would read the students' textbook first. Then I would access other textbooks. I would do a literature search on the topic. Then I would try to get Canadian and Newfoundland statistics regarding the topic. And I would access community resources involved in the topic.

There are specific objectives you have

to meet, so I meet those first. I try to bring real-life examples into the discussion and I get the students to share their real-life experiences as well. I try to discuss things they can relate to. This is what they will remember.

Mary's specific written plan for the topic she is teaching consists of lecture notes and the overheads she has prepared. She related that she did not feel that she had sufficient information included in her written plan. "Someone else can't take my lecture notes and go give it. The facts are there, but not the extra stuff. That's a goal I have for myself. Some instructors here have everything written down, so I could take their lecture tomorrow and go give it."

A plan is necessary according to Mary. She identified two benefits of planning. "Students know if you are up on your topic. It comes through if you've researched your topic and done the best you can. I feel good if I've planned well and feel I've done a good job and feel the students have learned from that lecture."

Ruth: This respondent had just taught the course for the first time. The Curriculum Committee

provided Ruth with some objectives and course topics to be included in the course. She described her planning process in detail.

> I was given some objectives and some course topics to cover. I looked at them and then I decided what I thought the students should cover and I probably started with topics first. I looked at the most common concepts and the most important topics to make sure they would be covered. I matched them back to the outline I had been given from the Curriculum Committee.
>
> Next, I wrote the learning objectives. Then I decided what examples I would use to illustrate the concepts and how the students would have to apply the concepts. Then, I sat down with a calendar and I mapped out sequencing and the amount of time I would need for each concept.

Ruth sequenced content similarly to the other respondents. However, she did use one rationale for sequencing that was unique to her. "Basic content is taught first--content that it is needed for future content. It is irrelevant how some of the concepts is sequenced. I left an easy topic for the end of term

because the students are so stressed out, and it's easy to learn."

The respondent continued by describing how she planned the evaluation component of the course.

> Then, I had to decide how I was going to evaluate the course. So, I went back to the objectives and I went back to the calender and I tried to figure out how I was going to do that. I knew there were certain things I wanted them to do so it was more or less making a decision about what percentage would be papers versus tests. How many tests? How many papers? I knew what the papers had to do so the biggest decision there was writing out the actual instructions and deciding how much they were each worth and then deciding when they were due.

Ruth related that she did not test objectives that were evaluated by the written papers. She planned the due dates by collaborating with the other nurse educators who were teaching the students to ensure that the students would not have too many assignments or exams at the same time.

This overall course planning occurred before the term began. Ruth planned her specific classes

throughout the term.

> As we went through the term, I actually prepared the actual classes which were partially lecture, partially case discussion. It was all done very last minute, sort of the day before or a two days before the class had to be given. I was making up overheads or writing up cases and putting them on reserve in a sort of mad rush kind of thing. But at least I had known what the objectives were and that really helped.

Ruth reported that nurse educators have to plan if they are going to teach effectively. She also stated that planning should occur beforehand. "Planning and preparation should take place before the course starts as much as possible. I'm also planning and changing the plan throughout the course depending upon the students' needs. Although these would not be drastic changes."

Sue: According to Sue, content is sequenced in three ways. The first way is how it has traditionally been sequenced in the school. The second way of sequencing content is to follow the order the material is presented in the assigned textbooks.

Finally, content is sequenced if certain topics are prerequisite to upcoming topics. If it is determined that topics are not sequenced in an acceptable manner, the sequencing can be changed during course revisions.

Sue begins planning before the term commences. She said she plans her classes keeping the time limitations for delivery in mind. She describes her planning process as the following:

> I would start by talking to the instructor who had taught the topic before to get some ideas. Then, I would do the reading that would go along with that topic. I would do a literature search on the topic if it was needed. Then I would try to decide what would be the best way to present the topic--this would be content-driven. I don't use the instructor's manuals when planning.

According to this respondent, once she develops a plan she usually sticks with it. Her written plan for her classes consists of her lecture notes, overheads, and any audiovisual aids she plans to use. The overall plan for the term is made at a planning meeting in collaboration with the other nurse educators who will also be involved in teaching the learners.

Jane: Jane began her discussion about planning by relating how she decides what should be included in a course. Content, she explained, is sequenced from the simple to the complex.

> It depends on what it is that you want the student to get out of this course. For example, you would have to look at terminal objectives--what it is you want your student to do once they finish that course. Deciding on terminal objectives would involve doing research and looking at the literature and determining what's involved in the nursing care related to the course, if I didn't already know. I would also base it on my experience, if I'm an experienced teacher. If I worked in the area, I would also have some idea myself of what I would expect a student to do based on my background and what I learned but realizing that there is much more today involved in the nursing care today compared to when I studied. Also, I would base it on the philosophy of the school that I was working in and their conceptual framework.

Jane reported that she begins planning her

classroom sessions well in advance of the class. "I start planning my lecture well advance if I can to make sure I'm not hurried and I'm comfortable with it." Jane discussed time limitations as a major concern when planning how to present a topic. She described her planning process as the following:

> I look at the textbook that the students are recommended to use. Then I look at other textbooks. I will go to the journals and look at the latest information and research. I would look at the time and how I can present it to get my point across. I may not do everything in class, I may give them [the students] some things they have to do on their own time. I would look at audiovisual material and see if there was something that would lend itself to presenting this lecture better.

The respondent's written plan would include lecture notes of important points to be presented, prepared overhead transparencies, and any audiovisual materials she planned to utilize.

Summary

Kate presented a functional definition of

instructional development. She uses objectives extensively and these objectives are given to the students at the beginning of the term. She thought the objectives had a positive influence on the instructional process, but wondered if objectives might limit the students' creativity. Kate discussed learner characteristic analysis as including prerequisite knowledge of the learners and the variety of learning styles that the educator must consider when planning the course.

Kate uses mostly lectures and overheads. However, she does place considerable emphasis on encouraging critical thinking in the students. Therefore, she also spends a considerable portion of her classroom time posing thought-provoking questions. Audiovisual materials are seen to be an important adjunct to the presentation of certain topics.

This respondent stated that student input is essential for true evaluation. Students are evaluated formatively and summatively and the evaluations are objective-based. She prefers to develop exam questions as she is preparing for her lectures and classroom time. The students evaluate the course and Kate uses this feedback when revising the course. She also stated that another reason for course revision is to

ensure the educator feels a "sense of ownership" and feels as if the course "is working." Course revisions are considered annually and the objectives, evaluation component, teaching-learning strategies and resources are all conceivable revisions if the need is determined.

Kate begins planning before the course begins. She considers time restraints to planning to be a major limitation to the planning process. She sequences content from the general to the specific. Kate uses current literature, textbooks, and the content objectives when planning the course. For discrete classroom sessions, Kate's written plan consists of lectures which include lecture notes, prepared overheads, critical thinking questions and other classroom activities.

Mary presented a limited definition of instructional development which focused on content delivery. She uses objectives extensively and these objectives are given to the students at the beginning of the term. However, she stated that objectives "boxed her in" by dictating what she was to teach. Mary discussed changes in her learners and how this has influenced the program.

Mary uses mostly lectures and overheads. She

related that time restraints and large groups were the major limitations to using a variety of teaching strategies. Clinical conferences are a major teaching-learning strategy used in the clinical area.

Students are evaluated formatively and summatively and the evaluations are objective-based. She prefers to develop exam questions after she has presented the lecture in class. The students evaluate the course and Mary uses this feedback when revising the course. The other reason she presented for course revision was to ensure the course is updated annually. Course revisions can include all aspects of the course.

Mary begins planning before the course begins. Content is sequenced in terms of the types of experiences students will have in the clinical area and prerequisite content and easier content is presented first. Mary uses current literature, textbooks, and the content objectives when planning the course. For individual classroom sessions, Kate's written plan consists of lectures which include lecture notes, prepared overheads, and audiovisual materials.

Ruth presented a functional definition of instructional development. She uses objectives extensively and all aspects of the instructional development process is objective-focused. These

objectives are given to the students at the beginning of the term. Ruth described her learners and uses this learner analysis to plan teaching methodologies.

She uses mostly lectures, case discussions, and overheads. Clinical conferences were noted to be an important teaching-learning strategy in the clinical area.

This respondent stated that students are evaluated formatively and summatively and the evaluations are objective-based. The students evaluate the course and Ruth uses this feedback when revising the course. She also revises areas of the course that she feels could be better executed. Course revisions are considered annually and all aspects of the course are open to revision if the need is deduced.

Ruth begins planning before the course begins. Her planning process always begins with her objectives. She sequences content by presenting prerequisite content first. She also, uniquely, leaves one of the easier topics for the end of term when students are likely to be most stressed. For specific classroom sessions, Ruth's written plan consists of lectures which include lecture notes, prepared overheads, and case discussions.

Sue's definition of instructional development

focused on the delivery of instruction. She uses objectives extensively and these objectives are given to the students at the beginning of the term. Sue related that educators must analyze learners and consider this analysis when planning teaching strategies.

Sue uses mostly lectures and overheads. She considers time restraints to be the major limitation when determining teaching methodologies. Clinical conferences are used in the clinical area. Students are evaluated formatively and summatively and the evaluations are objective-based. She prefers to develop exam questions after the lecture has been given on the related topic, but stated that educators should be able to prepare exam items before the lecture is delivered if they are truly based on the objectives. The students evaluate the course and this feedback is used when course revisions are considered. Sue also stated that another reason for course revision was to ensure the content is keeping abreast with societal trends. Course revisions are considered annually and the objectives, evaluation component, teaching-learning strategies and resources are all possible revisions if the need is justified.

Sue begins planning before the course commences.

Content is sequenced as it has been traditionally, according to the order it is presented in the textbooks, or by delivering prerequisite content early in the term. Sue uses current literature, textbooks, audiovisual resources, and the content objectives when planning the course. For individual classes, Sue's written plan consists of lectures which include lecture notes, prepared overheads, and audiovisual materials. General term planning is carried out in collaboration with the other nurse educators at planning meetings.

Jane provided a limited definition of instructional development and focused on the benefits to the learner. She uses objectives extensively and these objectives are given to the students at the beginning of the term. She thought the objectives had a positive influence on the instructional process, but wondered if objectives might limit the students' creativity. Jane discussed the characteristics of her learners and stated that this analysis has an impact on teaching styles.

Jane uses mostly lectures and overheads. She stated that time restraints for content delivery and large groups to be the major limitations of determining teaching methodologies. Audiovisual materials are seen to be an important adjunct to the presentation of

certain topics.

Students are evaluated formatively and summatively and the evaluations are objective-based. She stated that when exam questions are developed depends on when the exams and lectures occur in the term. She did not express a preference for any particular time to develop questions. The students evaluate the course and this feedback is utilized when courses are revised. Faculty feedback is also utilized for course revisions. Course revisions are considered annually and the objectives, evaluation component, teaching-learning strategies and resources are all open to revision if needed.

Jane begins planning before the course begins. She considers time restraints for content delivery to be a major consideration in the planning process. Content is sequenced from the simple to the complex. She uses current literature, textbooks, audiovisual resources and the content objectives when planning the course. For individual classroom sessions, Jane's written plan consists of lectures which include lecture notes, prepared overheads, and audiovisual materials to be used.

The respondents believe they each have their own approach to instructional development. They do have a systematic method to planning instruction. Their

approaches focus on delivery of content and teaching strategies to be used. Objectives are heavily utilized, but these objectives are basically a requirement of their respective curriculum committees.

CHAPTER FIVE

Conclusions and Recommendations

Summary of Study

This ethnographic study attempted to determine the instructional development knowledge of nurse educators in Newfoundland, and to determine how nurse educators plan instruction. One nurse educator was randomly selected from each of the five Schools of Nursing in Newfoundland. Each selected nurse educator participated in an interview of approximately three hours duration. The collected data was analyzed qualitatively.

The interviews were semi-structured with the exception of the short survey used to determine demographic data of the educators. The respondents set the agenda for the interviews. The interviewer sought to utilize only open-ended questions, and only interjected to ensure certain topics were discussed at some point during the interview.

The results of this study were compared to the common elements to instructional development models as discussed by Knirk and Gustafson (1986).

Needs Assessment: Basic theoretical and clinical requirements are provided by the ARNN. The schools of

nursing evaluate societal trends and health/illness statistics in determining specific content to be included.

Assessment of Learner Entry Skills: All students entering a diploma school of nursing write a Scholastic Aptitude Test. Students entering the baccalaureate program must complete a General Studies year at Memorial University before being accepted into the program. Therefore some of basic academic prerequisite skills are assessed. However, it must also be noted that the nursing education is a post-secondary program with a discrete theory and practical base which students, for the most part, would not have access to or experience with. In the present programs, however, there is little individualization of programs to meet the students' needs.

Specification of Behavioral Objectives or Performance Tests: The nurse educators utilize objectives when planning the course, when planning individual classes, when evaluating the students, when selecting teaching methodologies, and when revising the courses. A primary focus for the majority of the nurse educators was to ensure that selected content is delivered to the students within the time limitations provided. However, this content is heavily linked to

the objectives. Students are aware of all academic, clinical, and professional objectives at the beginning of each course.

A Procedure for Selecting Presentation Methods and Media: Time restraints and large groups of learners were the two major limitations when selecting the classroom methodologies. Small group conferences were extensively used in the clinical area. Faculty members were concerned about their learners and content when deciding on teaching methodologies, but constraints limited their actual implementation. Audiovisual aids are extensively utilized. However, the main presentation method continues to be lecturing.

An Implementation, Evaluation, and Revision Procedure: Students receive formative and summative evaluations based on objectives. Courses and lectures are revised annually based on student and faculty feedback.

The results indicate that the nurse educators do have a systematic approach to planning instruction. There are obvious similarities between instructional development and nursing if considered from a systems theory perspective. It is queried if past use of the nursing process has enabled nurse educators to utilize a systems approach to instructional development.

However, the educators are not aware that they are espousing the instructional development process. The respondents were unable to discuss the theoretical bases or theorists associated with instruction development. Even though all the respondents use objectives extensively, they were unable to discuss theorists or researchers in the area. They are not utilizing an instructional development model and, for the most part, are unable to discuss the terminology associated with the process. It is felt that the requirements of the Curriculum Committees in each school is one of the driving forces behind the systematic approach to instructional planning. The nurse educators are aware of these requirements and have done sufficient reading to be able to operationalize a systematic approach. It should be noted that in 1993 Memorial University introduced a Master of Nursing Education program. Two of the required courses in this program are Instructional Development and Curriculum Development, both taught by the Faculty of Education.

Conclusions

The data indicated that nurse educators do use a systematic approach to planning instruction which does

resemble a rudimentary, functional application of the process of instructional development, most of them without even knowing that they are using an instructional development approach. Objectives are a major focus point in the instructional planning process of the nurse educators.

Recommendations

Based on the analysis of the data gathered during this study, the following recommendations are made.

1. That further study be undertaken to determine the knowledge base of discrete instructional development components of the nurse educators in Newfoundland.

2. That nurse educators be encouraged to participate in courses of instructional development that would provide a framework and a theoretical base for the systems approach they are presently utilizing.

3. That nurse educators receive additional inservice training on how to incorporate the humanistic approach into their curriculum.

4. That further study be done with the nurse educators following the institution of the new Collaborative Curriculum to determine any changes in instructional planning related to the new curriculum.

5. That further study explore the connection between using an instructional development approach and the efficiency and effectiveness of instruction.

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Appendix A:

CNA Standards for Nursing Education

CNA Standards for Nursing Education (1978):

Standard 1: The agency sponsoring a nursing education program shall develop a comprehensive plan for the program that:

1. reflects an examination of the society or community in which the program is located;
2. identifies the health and nursing care needs of the society or community and the resources that are available to meet these needs;
3. demonstrates that a program is needed in that particular setting;
4. describes the characteristics of the population from which learners are to selected;
5. provides a rationale for the type of program selected;
6. demonstrates that the purposes and objectives of the program are not inconsistent with the purposes and objectives of the sponsoring agency;
7. demonstrates that the program is compatible with other nursing education programs in the society or community;
8. demonstrates that the environment within which the program takes place is appropriate

to the learning needs of the learners and that the program does not compromise the responsibilities of cooperating agencies;

9. demonstrates that the program is compatible with statutory and other regulations that have implications for the learners, the teachers and the graduates of the programs;
10. demonstrates that in the development of the program there was consultation with the statutory body that governs nursing practice, with relevant educational authorities in the sponsoring agency and in the jurisdiction and with employers, other groups and/or individuals whose support has significance for the program; and
11. identifies the physical, human and fiscal resources and limitations that have implications for the program.

Standard II: The nursing division of the sponsoring agency shall provide a statement of its beliefs about the nursing of individuals, families and communities that:

1. identifies the phenomena with which nursing is concerned and the interrelationships among these phenomena;

2. explains the conceptual framework upon which its nursing practice is based;
3. identifies relationships between theory and practice in nursing;
4. identifies nursing roles and functions;
5. identifies the relationship of the practice of nursing to the practice of other health care professions;
6. identifies settings in which nursing is practiced.

Standard III: The nursing division of the sponsoring agency shall provide a description of:

1. the philosophy and objectives of the program;
2. the cognitive, affective and psychomotor skills and abilities that graduates will be able to demonstrate; and
3. the situations in which and the circumstances under which the graduates will be prepared to practice.

Standard IV: The sponsoring agency shall provide an overall plan for the program that:

1. describes the organizational structure of the sponsoring agency and the place of the program in that agency;
2. demonstrates logical timing and sequencing of

content and process;

3. states specific objectives of the program and the strategies, methods and materials that will be used to meet these objectives;
4. describes relevant learning experiences for students and identifies suitable facilities and resources;
5. specifies criteria and methods for selection and admission of learners;
6. specifies criteria and methods for selection and professional development of teachers and other program personnel; and
7. describes the organization and functions of program personnel and learners.

Standard V: The sponsoring agency shall provide a statement of the ways by which learners, teachers and the program are to be evaluated that describes:

1. the criteria and methods by which the performance or learners will be assessed, concurrently and terminally, in terms of objectives of the program;
2. the criteria and methods for progression in the program and graduation from the program;
3. the criteria and methods by which the performance of the teachers will be assessed

in terms of objectives of the program and policies of the sponsoring agency;

4. the criteria and methods by which the effectiveness ofthe program will be assessed; and
5. the methods by which results of the evaluations will be used to plan and implement modifications of the program. (CNA, 1978, pp. 3-6).

Appendix B:

Interview Guide

Demographics

Nurse Educator:_____

Age: 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, over 50

Teaching Record

1. Number of years as a nurse educator? _____
2. What level students do you teach? _____
3. Have you been a member of a Curriculum Committee? Yes No
4. Have you developed/revised courses? Yes No

University Record

1. Number of years of university education? _____
2. Degrees obtained? _____
3. Graduate degrees/diplomas obtained? _____
4. Number of Education courses? _____
5. Have you completed any courses in instructional development? Yes No
6. Have you completed any courses in curriculum development? Yes No
7. What was the last university course completed? _____
8. When was the last university course completed? _____

Instructional Development

The following questions and topics were used as a general guide for the interviews. Respondents were permitted to alter the order through open-ended responses.

Definition

1. How would you define instructional development?
2. How did you reach this definition?
3. Are you aware of any theorists related to instructional development or any models of instructional development?

Specific Components of Instructional Development

Objectives

1. What is your perception of needs assessment?
2. How would you define objectives?
3. Tell me what you know about objectives?
4. What do you know about theorists who wrote about objectives?
5. How do you use objectives?
6. Tell me where your objectives came from?
7. What are your personal thoughts about the usefulness of objectives?

Learner Analysis Characteristics/Entry Level Behaviour

1. How would you describe your learners?
2. How do your learners influence your instructional planning?

Evaluation

1. How would you define evaluation?
2. Tell me how you evaluate your students academically and clinically?
3. When are your students evaluated?
4. When do you develop your exams?
5. What do you do if students are not successful?

Learning Strategies and Resources

1. Tell me about the teaching strategies you use?
2. What do you consider when deciding on teaching strategies?
3. Describe the learning environment.
4. How do you select instructional resources?

Revision

1. When should courses and lectures be revised?
2. Discuss the circumstances under which revisions should be performed.
3. Discuss how students impact on your course revisions.

Instructional Planning

1. How would you describe the planning process?
2. What are the benefits to planning?
3. When do you begin the planning process?
4. What do you consider when planning a course?
5. How do you decide on content sequencing?
6. What factors influence planning?
7. Describe your plans.
8. Under what circumstances would you revise your plans?