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A descriptive study of nursing articulation practices of baccalaureate nursing programs in the United States

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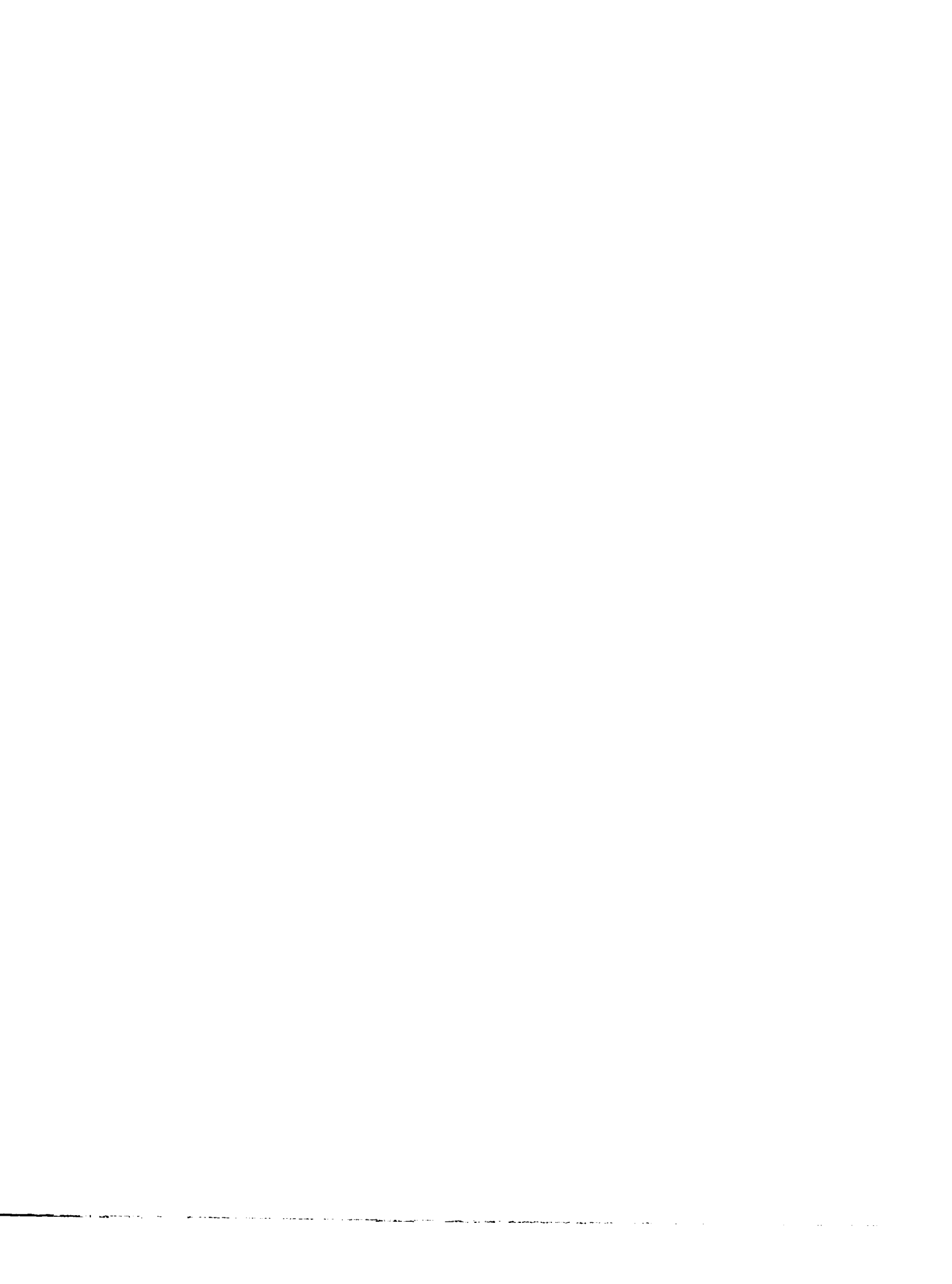
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**A descriptive study of nursing articulation practices of
baccalaureate nursing programs in the United States**

Strachota, Ellen Van Aacken, Ph.D.

Iowa State University, 1989

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A descriptive study of
nursing articulation practices
of baccalaureate nursing programs
in the United States

by

Ellen Van Aacken Strachota

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CHAPTER I. THE PROBLEM

Introduction

This is a challenging time for nursing and nursing education. The rapidly changing health care arena demands the nurse be educated to meet the complex technological needs of clients and families. The interim report from the Secretary's Commission on Nursing (1988) state that today's nurse cares for clients who are more acutely ill, are older and have more complex problems. Never have the demands for nurses prepared at the baccalaureate level been greater. These nurses must absorb complex information and produce decisions that will benefit the individual clients (Ott, 1988).

The American Hospital Association (1987) has identified a significant need to educate more nurses. Nurses themselves have demonstrated a desire to obtain more education; 204,000 nurses initially prepared at the associate degree or diploma level enrolled either full-or part-time in baccalaureate nursing programs between 1982 and 1986 (RN Baccalaureate Nursing Education, 1988).

One challenge for nursing and nursing education is to have not only a sufficient supply of nurses, but also nurses educated at the level necessary for safe delivery of client care (Secretary's Commission on Nursing, 1988). Part of the

solution to increasing the nurses' knowledge lies in the ability to move them professionally through existing educational and career stages, the process of articulation is one method to achieve this goals.

Articulation

Articulation is one process through which two or more distinct programs cooperate to accommodate the learning needs and career goals of students with a minimum repetition of learning experiences (Bowles, Lowry & Turkeltaub, 1988). Articulation in nursing facilitates the transition of students initially prepared at the associate degree or diploma level into a baccalaureate program in nursing without loss of credit or duplication of learning (Kintzer, 1973).

Articulation in both higher education and nursing education has been plagued by many problems. Renewed interest in this process has occurred because of changing demographics of students presently enrolled in attending college. Nurses are enrolling in colleges because they are finding it necessary to further their education. They need to increase their knowledge to maintain competent in their professional practice.

Nursing Programs

Presently, three educational programs prepare a person to sit for the examination to gain licensure as a Registered

Nurse (R.N.): Associate Degree Program, Diploma program and Baccalaureate Degree program. Since R.N.s are frequently referred to as nurses, in this paper the terms will be used interchangeably and will be differentiated by their level of education specifically as A.D.N. (Associate Degree Nurse), Diploma Nurse and B.S.N. (Baccalaureate of Science in Nursing) when necessary to stipulate this. Further the terms B.S.N. and Baccalaureate prepared nurse will be used to indicate that the nurse has a four year college education, with a major in nursing.

The first type of the three educational programs that prepare R.N.s is an associate degree program, which is usually two academic years in length and is earned at a community or junior college. This program prepares nurses to give technical care in a structured setting. The second type of preparation is the diploma program which is usually three academic years in length and is offered in a hospital school of nursing. This program prepares nurses to give bedside hospital care to clients in acute, long-term, and ambulatory health care facilities. The third program leads to a bachelor of science in nursing degree. It is usually four academic years in length is offered in a four-year college or university. This program prepares nurses to function in a variety of roles, both within structured health care settings and in unstructured settings, and to

supervise those nurses with lesser preparation (Ellis & Hartley, 1988).

The variety of degree programs available to prepare one to become a Registered Nurse adds to the confusion in nursing education. In order to give direction to nursing and nursing education, the American Nurses' Association (A.N.A.) House of Delegates in 1986 reaffirmed the association's position that preparation for the professional nurse should be at the baccalaureate degree or higher, and education for the technical nurse should be at the associate degree level. The A.N.A. House of Delegates also encouraged baccalaureate degree programs of nursing to investigate methods to facilitate articulation among the three levels of nursing. The National League for Nursing, the official accrediting organization for programs of nursing, agreed with the A.N.A.'s position and has begun a process of examining the options in articulation.

Legislation and Articulation

In addition to the professional nursing organizations' involvement with educational articulation, legislation in various states has dictated that it occur. States have mandated that methods be created for nurses initially prepared at the associate degree or diploma level to be able to articulate into bachelor of nursing programs in state colleges and universities. For example, in 1980 the state

of Maryland formulated a Governor's Commission on Nursing Issues (Feldman, Jones, Rapson & Stoddard, 1987). Articulation of nursing education programs was one of the major concerns. In 1983, the governor appointed the Task Force on Nursing Education that developed a statewide model of articulation between associate degree, diploma and baccalaureate degree programs. Arkansas has enacted legislation through ACT 88 that requires upper division programs to accept previous credits or to develop challenge examinations for granting credits from lower level nursing programs (Thomas & Thomas, 1987).

Very little research was found regarding articulation between associate degree or diploma schools of nursing and baccalaureate programs. According to Bowles, Lowry and Turkeltaub (1988), educational articulation for registered nurses is imperative if the profession is to remain vital. Therefore, research into the articulation practices of baccalaureate programs of nursing is both timely and necessary in order for the profession of nursing to progress.

Need for the Study

The American Nurses' Association conducted a national survey of registered nurses in 1986 and found that Registered Nurses (R.N.) without baccalaureate degrees constituted the largest single category of nurses in the

United States. Some of these nurses were in the process of actively pursuing B.S.N. degrees, but the non-B.S.N. nurses experienced a magnitude of confusion, frustration and problems when pursuing additional education. There are articulation models; however, these models require students to repeat content and/or clinical experience, regardless of their initial preparation and experience.

This study is an investigation of the articulation practice for nurses initially prepared in associate degree or diploma programs into baccalaureate programs of nursing. In order for changes to be initiated, current articulation practices, attitudes and factors that influence formulation of or change in policy must be investigated.

This study is unique in that it investigates the current state of articulation practices between nursing programs and solicits the opinions of nursing leaders in baccalaureate programs regarding future articulation policies. The opinionnaire portion of the survey provides the investigator with a sense of emerging trends that are based on the response of the nursing education Chief Academic Officer (C.A.O.).

Purpose of the Study

An accurate assessment of current practices of articulation between the associate degree and diploma schools nursing programs and the baccalaureate degree

nursing programs is lacking. This study categorizes present articulation practices and forecasts future trends in nursing articulation. The results will serve as a foundation for studying articulation options, the factors influencing the development of these options. They also provide direction for educational articulation for registered nurses in the future. The extent of articulation will be measured by gathering data on the number and type of credit hours accepted by the baccalaureate degree program, (B.S.N.) and the methods used to validate previous nursing education and experience.

The major purposes of this study are:

1. To explore the extent to which colleges and universities have adopted articulation procedures for admitting associate degree or diploma nursing graduates into their baccalaureate programs.
2. To determine which methods are currently used to validate previous learning in support courses and nursing courses for credit in baccalaureate degree granting institutions.
3. To identify granting institutions' factors influencing the development of or changes in articulation policies of colleges or universities.

4. To investigate the attitudes of nursing leaders of baccalaureate programs toward future articulation practices.

Research Questions

The research questions that guided this study are:

1. What articulation practices are presently utilized in baccalaureate schools of nursing throughout the United States?
2. What factors influence the development or revision of articulation policies in baccalaureate schools of nursing throughout the United States?
3. What are the emerging models of articulation in baccalaureate schools of nursing throughout the United States?

Assumptions

The assumptions of this study are:

1. Continuing numbers of nurses initially prepared at the associate degree and diploma school levels will seek advanced education in the field of nursing to attain the baccalaureate degree.
2. A core of knowledge exists in associate degree and diploma nursing curricula upon which the baccalaureate nursing curriculum can be built.
3. Multiple routes can lead to the same baccalaureate level competencies in nursing.

4. Nursing education gives a high priority to facilitating registered nurses' career and educational mobility.

Limitations

The limitations of this study include the following:

1. Only National League for Nursing (N.L.N.) schools are included in the population sample.
2. A panel was used to establish content validity; future studies are needed to establish reliability of the articulation questionnaire.
3. The questionnaire was completed by the chief academic officer or a delegated person of each baccalaureate nursing program and may not represent the opinions of the nursing faculty. Some questionnaires were not completed or were completed incorrectly.

Definitions

For the purpose of this study, the following definitions are used:

Articulation: A process which facilitates the transition of students from lower-division programs to upper-division programs without loss of credit or duplication of learning (Kintzer, 1973).

Articulation Policy: Rules and regulations that govern the acceptance of credits from other programs;

the actual rules and regulations concerning acceptance of general education and nursing credits from an associate degree or diploma nursing program into a baccalaureate degree nursing program.

Associate Degree Nurse: A graduate from a program approximately two years in length, established in a junior or community college. This graduate is eligible for licensure as a registered nurse (National League for Nursing, 1986a).

Bachelor of Science in Nursing: The nursing degree considered to be the professional degree in nursing, received after completing a four-year college or university program in nursing. The graduate with this degree is eligible for licensure as a registered nurse (National League for Nursing, 1987).

Diploma Nurse: A graduate from a hospital-based nursing program usually three years in length. The graduate of such a program receives no college degree, but is eligible for licensure as a registered nurse (National League for Nursing, 1986b).

Lower-division: Courses taken at a community college or diploma school, or freshman and sophomore level courses in a college or university.

Professional Nurse: A nurse holding at least a baccalaureate degree in nursing or a higher nursing

degree (American Nurses' Association, 1986).

Registered Nurse (R.N.): A nurse who has successfully passed National Council Licensure Examination for Registered Nurses (NCLEX RN).

Technical Nurse: A nurse holding a diploma or associate degree in nursing and state licensure to practice (American Nurses' Association 1986).

Upper-division: Courses taken at the junior and senior levels in a college or university.

CHAPTER II. REVIEW OF LITERATURE

Introduction

The nursing profession has a history of earnest concern for its educational programs. Just as American thought has placed great value on the importance of an educational system to the well-being of free persons, in that same spirit nursing has invested in its educational system confidence to reform the ills of clinical practice, to keep up with changing technology and to strengthen the stature of the profession. Despite this commitment, the data that emerge from a review of the literature is that nursing education has not kept pace with the progressing needs of the profession (Hart & Sharp, 1986).

This review of literature begins with a history of nursing education, including the three types of programs: the diploma school, the baccalaureate program and the associate degree program. Current practices in nursing articulation follow the historical overview. Three eras during which different articulation practices were common are explored. Specific emphasis in this section is given to the Maryland Model, a recent legislative-driven articulation plan. Other specific examples of educational articulation between associate degree or diploma programs of nursing and baccalaureate programs of nursing complete this section. Following the section the review includes

nursing studies on differentiated practice between the technical and professional nurses. Findings from two recent national studies are cited. The final part of the review focuses on articulation in Higher Education. It includes a history of articulation and examples of statewide articulation. Specific policies and concepts of articulation are described. The review ends with general principles to aid educational articulation. Sources for the review of literature include an ERIC database search, examination of the Education Index and the Cumulative Index to Nursing and Allied Health Literature.

Historical Overview of Nursing Education

An understanding of nursing is necessary in order to place 1988 nursing and nursing education into context. Modern nursing has evolved from religious, military and social backgrounds. Nursing grew primarily due to factors that had impact on society as a whole (DeLoughery, 1977).

Prior to the late eighteenth century, there was no special formal training or education for nursing. Instead, practical experience received at the patients' bedsides constituted the training. Florence Nightingale developed the first organized program for training nurses in 1860 (Donahue, 1985). The aims of the Nightingale school were to train hospital nurses, to instruct nurses in the training of others, and to train district nurses for the

sick poor. From these beginnings, three types of programs for the R.N. emerged. They are Diploma, A.D.N. and B.S.N. programs. These programs will be presented as they historically developed.

Diploma Schools

The first school of nursing in the United States attempted to pattern itself after the Nightingale system (Dolan, Fitzpatrick & Herrmann, 1983). With the expansion of hospital facilities, there was also an increase in schools of nursing. Because of economic difficulties in maintaining a separate school of nursing and the need to provide inexpensive nursing care for hospitalized patients, the schools came under the purview of hospitals (Dolan, et al., 1983). Such a hospital became known as a training school which offered a diploma in nursing.

Hospitals and physicians welcomed the training schools because of the ready supply of nearly free service by the student nurses. In the early years, the education offered was largely apprenticeship. Some theory and formal classroom work were taught, mostly by physicians (Kalisch & Kalisch, 1986). Upon satisfactory completion of the program, the student was awarded a diploma. This diploma, however, was not an academic degree, because neither the hospitals nor the schools of nursing located in the hospitals were legally or regionally accredited

educational institutions.

These early hospital training schools soon proved their value, and by 1879 there were eleven training schools in the United States (Donahue, 1985). By the turn of the century there were more than 432, and most of them had expanded their programs from two to three years. The value of trained nurses had finally been demonstrated, resulting in a growing demand for trained nurses.

For economic and educational reasons, a large number of diploma or hospital based schools purchased biological, physical science, social science and some liberal arts courses from community or four year colleges or universities. If these courses were part of the general offerings of the college, college credit was granted and could usually be transferred if the nursing student decided to transfer to a college or to continue in advanced education (Donahue, 1985). The diploma prepared nurse served a unique function.

There are a variety of opinions concerning who the diploma graduate is or should be. The National League for Nursing and its Council of Diploma Programs has defined the diploma program in the following manner.

The diploma program in nursing prepares an individual, eligible for licensure as a registered nurse, to function as a beginning practitioner in acute, intermediate, long-term and ambulatory health care facilities

(National League for Nursing, 1986 b., p. 1).

The graduates of diploma programs (1)are eligible to take the examination leading to licensure as a registered nurse; (2)utilize the nursing process, which includes assessment, nursing diagnosis, planning, implementation, and evaluation of nursing care for individuals and groups of patients; (3)have an understanding of the hospital climate and the community health resources necessary for the continuity of care of patients; (4)understand the role of other health disciplines and are active members of the health team; (5)adjust readily to the role of beginning practitioners; and (6)are eligible to change career goals and advance in other educational programs for the purpose of expanding the scope of their knowledge skills, and responsibilities in the practice of nursing (National League for Nursing, 1986b., p. 2).

Baccalaureate Programs

The second type of nursing education program is the baccalaureate program. The University of Minnesota School of Nursing in 1909 became the first nursing school organized as an integral part of a university. This happened through the influence of Dr. Richard Olding Beard (Donahue, 1985). Nursing students were admitted and registered as regular students of the university with all university requirements and privileges (Donahue, 1985). Similar schools were established in the Universities of Indiana and Cincinnati, setting the model for many additional programs. In a four-year institution an attempt had been made to mix occupational preparation with a liberal arts education.

The Baccalaureate Degree program at these institutions generally included a variety of courses such as social sciences, natural sciences and humanities. The program mixed general education requirements with courses germane or related to professional nursing courses (Kalisch & Kalisch, 1986). In some programs the students were not admitted to the nursing major, and therefore did not take nursing courses, until the junior year of college study. In other programs, nursing content was interwoven throughout the entire curriculum.

Baccalaureate programs included both theoretical content and clinical experience. The difference between baccalaureate and diploma schools was that courses in physical and social sciences were taught in greater depth and breadth, similar to other college-level courses. Often the diploma school's support courses were specific only as content related to nursing (Kalisch & Kalisch, 1986).

Historically, many of the early baccalaureate nursing programs were established to provide a means of career mobility for registered nurses. Graduates of diploma schools sought college baccalaureate of nursing degrees as a means of enhancing the quality of their nursing care, as an avenue for improving themselves, and as an approach to the advancement of nursing as a profession (Dolan, et al., 1983). In admitting these degree candidates, colleges did

recognize the need to provide some form of assessment of the individual's previous education and experience. The method used to award college credit prior to 1960 was generally a system of granting a set number of "blanket" credits to the nurse who had completed a hospital school of nursing course and who had been licensed as a registered nurse (Dineen, 1975). In addition, tests were sometimes used to provide evidence of the student's competency (Dineen, 1975).

Some of the baccalaureate programs have several tracts to obtain the baccalaureate of science degree. The generic tract refers to the curriculum that is designed for the student without any previous nursing education or licensure. The R.N. tract is designed for those students who are already registered nurses prepared at A.D.N. or diploma programs to obtain both the liberal arts courses as well as the additional nursing content. Nursing content for the R.N. usually includes community health nursing concepts, leadership and management, nursing research and critical thinking skills. The terminal objectives for students in both tracts must be the same (National League for Nursing, 1987). Even then baccalaureate nurses were different from diploma nurses. Characteristics of baccalaureate education in nursing have been described by the National League for Nursing's Council of Baccalaureate and Higher Degree

Programs:

The baccalaureate program in professional nursing is offered by a senior college or university and prepares nurses to function as generalists within the health care system¹. It provides students with the opportunity to acquire a knowledge of theory² and competence in the practice of nursing and an appreciation of professional nursing's historical, present, and potential impact on society. It further provides a foundation for continued professional development and graduate study in nursing.

Graduates are prepared to provide professional nursing service based on theory and research. As generalists, they assume accountability for their own nursing practice, accept responsibility for the management of nursing care; serve as client advocates; and collaborate with other health care professionals. Graduates practice in a variety of health care settings. They provide nursing services designed to promote, maintain, and restore health. They also provide illness care, rehabilitation care, health counseling, and education for clients of all ages and from diverse and multicultural populations.

The structure of the baccalaureate degree program in nursing is consistent with contemporary baccalaureate education. The nursing program is conceptually consistent with the philosophy of the parent institution. The foundation of baccalaureate nursing education is drawn primarily from the scientific and humanities disciplines. Liberal education is foundational for the development of critical thinking, decision making, and independent judgment; and for understanding and respecting people, various cultures, and environments. The major in nursing is concentrated at the upper-division level and reflects the interactive nature of nursing science with behavioral, social, physical, natural, and health sciences. The nursing major focuses on the utilization of theory and research as a basis for practice.

Upper-division study also includes content that complement nursing and increases the depth and breadth of general education, which promotes self-understanding, personal awareness, and motivation for continued learning (National League for Nursing, 1987, p 1-2).

Associate Degree Programs

The third form of educational program leading to a registered nurse (R.N.) is the associate degree program. This program is generally two years in length and is offered by junior or community college. These schools have exhibited a phenomenal growth in number of programs, but their nursing programs have also evoked a great deal of controversy, since many nursing educators believe that a nurse needs a minimum of four years of education (Donahue, 1985).

The model of two-year nursing education, based on the Cadet Nurse Corps model, was developed by Dr. Mildred Montag of Columbia University's Teachers College. During World War II, more nurses were needed to meet the demands of a growing wartime population. The Cadet Nurse Corps was established to provide more trained nurses in a shorter time. Once again the emphasis was placed on nursing service needs, rather than on an examination of how nursing should be taught and on the needs of the learner (Donahue, 1985).

After the war, Dr. Montag proposed an idea to help reduce the critical shortage of nurses throughout the nation

by producing more nurses faster; this approach also helped move nursing education into the overall system of American higher education (Kalisch & Kalisch, 1986). Seven target community junior colleges were selected for inclusion in a five-year project to develop and evaluate associate-degree nursing education. General education accounted for one-third of the total curriculum, while nursing courses accounted for two-thirds. Of the nursing portion, 75 percent was clinical practice (Kalisch & Kalisch, 1986). Montag (1959, p. 2) noted the following assumptions at the onset of the Associate Degree Nurse Project:

1. There should be differentiation among categories of nurses (technical-professional).
2. The largest number of nursing functions occurs within the semi-professional or technical category.
3. Education for nursing belongs in the mainstream of higher education.
4. The junior or community college is the logical institution for this type of technical preparation.
5. When preparation for nursing is education rather than service oriented, the time involved in preparation should be substantially reduced.

The results of the five-year study indicated that the two-year curriculum could prepare a registered nurse and that the program could become an integral part of a total

college. The Associate Degree program was the first nursing education program developed under a systematic plan and with carefully controlled experimentation by nursing faculty. Initially the program was considered to be terminal, not the first step toward the baccalaureate (Montag, 1959). However, the entire concept of the associate degree nursing program as a terminal degree has changed over the last twenty-five years. Later, Montag noted that no educational program should be terminal in the sense that graduates cannot continue their education toward another degree. Whether students get full or partial credit for previous education depends on the philosophy and policies of the baccalaureate program they select (Kalisch & Kalisch, 1986).

In order to understand the role of the Associate Degree Nurses, the following description from the American Nurses Association 1965 position paper on nursing education is presented:

Technical nursing practice is carrying out nursing measures, as well as medically delegated techniques, with a high degree of skill, using principles from an ever-expanding body of science. It is understanding the physics of machines as well as the physiologic reactions of patients. It is using all treatment modalities with knowledge and precision.

Technical nursing practice is evaluating patient's immediate physical and emotional reactions to therapy and taking measures to alleviate distress. It is knowing when to act and when to seek more expert guidance.

Technical nursing practice involves working with professional nurse practitioners and others in planning the day-to-day care of patients. It is supervising other workers in the technical aspects of care.

Technical nursing practice is unlimited in depth but limited in scope. Its complexity and extent are tremendous. It must be rendered under the direction of professional nurse practitioners, by persons who are selected with care and educated within the system of higher education; only thus can the safety of patients be assured. Education for this practice requires attention to scientific laws and principles with emphasis on skill. It is education which is technically oriented and scientifically founded, but not primarily concerned with evolving theory (American Nurses' Association, 1965, p. 7).

Nursing education has changed dramatically since the days of the Nightingale training schools (Kalisch & Kalisch, 1986). Presently the majority of nurses are being prepared in institutions of higher education. Articulation from associate degree or diploma schools to baccalaureate programs is an important concept and will be described in the next section.

Nursing Articulation

When only one form of nursing education existed in the United States, there wasn't any need for educational articulation, but after the two tracks (diploma and university schools) were established, educational articulation became an issue. According to Shane (1983),

the United States has experienced three eras in nursing educational articulation: (1)1909 to 1960 (early), (2)1960 to 1972 (middle) and (3)1972 until today (present).

Early Era

The early years (1909 to 1960) represented diversity. Some schools required nurses to complete the entire baccalaureate program, while others required R.N.s to complete only general education courses (Shane, 1983). It was not uncommon for colleges and universities to grant from thirty to sixty semester credit hours to graduates of diploma programs. These credits were referred to as "blanket credits," since they were given without evaluating the student's knowledge or skills in nursing. The number of R.N.s completing university programs during this period was relatively small (Shane, 1983).

Middle Era

The middle era (1960 to 1972) in nursing education articulation was inaugurated when the National League for Nursing adopted a policy for baccalaureate programs that was based on the following consensus: there should be a single program in nursing leading to a baccalaureate degree, not one for generic students and another for registered nurses (Donahue, 1985). As associate degree schools proliferated and graduates sought entry into university baccalaureate programs, "blanket credit" for previous

nursing courses taken in diploma or associate degree programs was eliminated.

By 1970 the frustration and anguish of the R.N. seeking a B.S.N. was heard (Shane, 1983). The National League for Nursing endorsed the development and implementation of "open curriculum practices" in accredited schools of nursing. This endorsement set the stage for exploring new designs in nursing education to meet the needs of both the students and the public to be served (Lenburg, 1975). In response, an Advisory Committee supported by the Esso Foundation established a commission to study open curriculum in nursing (Lenburg, 1975).

Present Era

The present era began in 1972 with the establishment of upper-division programs for R.N.s. These nursing programs, designed expressly for articulation, have a variety of names, including second step, upper two, two plus two, B.R.N. programs, career ladder or B.S.N. - R.N. One of the first such programs was established at Sonoma State College in California. Admission requirements at Sonoma State included completion of 60 semester units of transferable credit from a community college nursing program or a diploma in nursing and 30 units of general educational requirements from a community college (Searight, 1976). Presently there are 97 programs accredited by the National

League for Nursing and specifically designed for registered nurses (National League for Nursing, 1988b.). In Iowa, four such programs exist. They are at Drake University, University of Dubuque, Buena Vista College and Briar Cliff College. The program at Briar Cliff College is in the process of accepting generic students, as well as R.N. students (A statewide plan for nursing, 1988).

A variety of methods has existed for R.N.s to validate nursing credit for courses taken in associate degree or diploma programs (Shane, 1983). Some baccalaureate programs have given credit for courses taken in community colleges, and most have given credit when content has been validated by examination or portfolio. The validating examination has been either teacher-constructed or a standardized national examination such as the American College Testing Proficiency Exam (ACT-PEP) or National League for Nursing (N.L.N.) mobility exams. Sometimes there has also been a clinical performance exam.

Still another type of program for R.N.s was approved by N.L.N. accreditation to grant a B.S.N. degree. The New York College Proficiency Examination Program advocated the concept that the essence of college education was not in taking courses, but in the learning that took place in these courses. A student was awarded a degree upon successful completion of the program's degree requirements, which

included demonstration of acquired knowledge through transfer credit or objective assessment procedures. Most students earned some credit through cognitive and performance examinations developed by the nursing faculty and staff of the New York State Regents External Degree in Nursing Programs (Shane, 1983).

The variety of options and the confusion in nursing education curricular articulation of two- and four-year nurse preparation programs eventually attracted the attention of state legislators. They became involved because of the recognized need for professional preparation in nursing, changes in health care delivery systems, and the economic impact of health care.

Maryland Model

In 1980 the Maryland legislature recommended establishment of a Governor's Commission on Nursing Issues (Feldman et al., 1987). The commission, chaired by a nurse who was a member of the Maryland House of Delegates, was composed of representatives from clinical nursing practice, nursing service administration, nursing education, health care organizations, the Maryland State Board of Higher Education, the Maryland State Board of Examiners of Nursing, the Maryland State legislature, and other state agencies.

A major issue identified by the commission was the articulation of nursing education programs; therefore, an

articulation panel was appointed from the original commission. The charge to the panel was to identify clear mechanisms for enhancing the progress of nurses from nondegree programs to degree programs and to develop recommendations for policies that would achieve this goal. In order to achieve this goal the governor of Maryland in 1983 appointed a Task Force on Nursing Education to develop a statewide model of preparatory nursing education that would articulate diploma, associate degree, and baccalaureate programs (Feldman et al., 1987).

The task force developed three options for articulation. The first option was for transitional courses. It was determined that, prior to 1979, associate degree and diploma programs varied greatly in requirements for courses in nursing and in the biological and social sciences (Rapson & Richardson, 1987). Thus, in order to ensure a common level of knowledge in nursing, three transition courses were designated to be required of all R.N.s who had graduated in Maryland before 1979 or who had graduated from out-of-state lower-division schools. The courses were:

- (1) scientific concepts (anatomy and physiology, microbiology, and other sciences);
- (2) social sciences and humanistic concepts (sociology, psychology, human growth and development, and the

humanities);

(3)nursing concepts (conceptual frameworks, issues, trends, and nursing science).

These were developed as noncredit courses requiring approximately 45 hours of classroom time. Students successfully completing all three are given 60 college credits towards the B.S.N. (Rapson & Richardson, 1987). Nurses who take advantage of this option must enter a baccalaureate program within two years of their completion of the transitional courses and then they have six years to complete the remaining 60 college credits for their B.S.N.

The second option was for direct transfer of credit. The R.N. could transfer 30 nursing credits, as well as 30 to 40 general educational course credits, from lower-division post-secondary institutions if the courses were acceptable to the receiving school (Rapson & Richardson, 1987). This plan was available only to R.N.s who graduated from a Maryland diploma or associate degree program after September 1979. The lower-division nursing programs in Maryland had to request and receive approval for the direct transfer of credits by meeting validation criteria established and evaluated by a special validation committee. This option has involved validation of programs, rather than evaluation of the previous learning of individuals. It was implemented in September 1986, one year after the transition courses, to

provide time for validation (Rapson & Richardson, 1987).

The third option was for advanced placement and was available to all R.N.s, regardless of the date or location of their graduation. Advanced placement examinations were taken in lieu of nursing courses (a maximum of 30 credits) and general education courses in natural, biological, and social sciences and in humanities. No student was allowed to receive more than 60 credits by examination or to transfer more than 70 credits. This option was already available in most baccalaureate programs prior to the formation of the Maryland Task Force (Rapson & Richardson, 1987).

Nursing educators in Maryland are recording data on numbers of R.N.s utilizing the different options, success of the participants and outcomes of the graduates. These three options are available in the five state baccalaureate programs of nursing (Rapson, 1987). There are also three private baccalaureate programs in Maryland. One of these has adopted the same plan, and one is in the process of adopting it (Rapson, personal communication, 2 November 1988).

Examples of Nursing Articulation

In Arkansas a state-mandated articulation in nursing was initiated in 1979. The legislature enacted a law requiring nursing schools in Arkansas to accept previous

credits or to develop challenge examinations for granting credits. Under this law a nurse is allowed to receive up to 60 credit hours toward either a bachelor's degree in nursing (Thomas & Thomas, 1987). Both nursing and support courses were included in these 60 semester hours of credit. Thomas and Thomas (1987) studied enrollment patterns before and after the law was enacted and found an increase in enrollment of R.N.s in the 20 Arkansas colleges and universities. There was, however, no increase in previous credits transferred or challenged by the R.N.s. Act 88, the Arkansas law, has failed to produce a measurable effect on articulation of previous credits and has not perceptibly expedited nursing education upward mobility in Arkansas (Thomas & Thomas, 1987).

Iowa recently completed a statewide plan for nursing (1988). In this report published by the Iowa Board of Nursing, articulation of lower-division nursing courses into the B.S.N. level was identified as a major task. A separate Education Task Force on Articulation composed of nurse educators from associate degree, diploma and baccalaureate degree programs, along with members of the Iowa Board of Nursing, was formed. The major challenge of this Task Force is to devise a statewide articulation plan for Iowa.

Several B.S.N. programs have established specific articulation agreements with lower-division programs. For

example, in Virginia the Department of Nursing at Norfolk State University has an articulation agreement with three community colleges: the Norfolk State University associate degree nursing program, Tidewater Community College, and Thomas Nelson Community College (Powell, 1986). The upper-level bachelor's program is devised as a completion program based on a common core of knowledge, skills and competencies held by graduates of the three community college programs. There is no validation of the core of knowledge prior to beginning the upper-division courses. This articulation requires collaboration and consultation among the four N.L.N. accredited programs. Yearly evaluation conferences are held with all four programs to assess changes and/or revisions within the various curricula and to accommodate those within the agreement (Powell, 1986).

The American Association of Colleges of Nursing (A.A.C.N.) has a federal grant funded by the Division of Nursing to conduct a comprehensive study of nursing completion programs and the R.N. Data Project (RN Baccalaureate Nursing Education, 1988). One area of study is the examination of advanced placement methods used in awarding credit for previous coursework. A.A.C.N.'s interim report indicates the following advanced placement methods in the 461 school sampled were used:

Table 1.

Advanced Placement Methods Used by A.A.C.N. Colleges

Method	N Frequency	% Percentage
College Level Examination Program (CLEP)	315	68.3
American College Testing Proficiency Exam (ACT-PEP)	275	59.7
N.L.N. exams	192	41.6
Teacher-made challenge exam	176	38.2
Clinical skills proficiency test	143	31.0

No direct transfer option was mentioned; however 742 senior students cited the acceptance of transfer credit as the most important reason for choosing a particular B.S.N. program (RN Baccalaureate Nursing Education, 1988).

Nursing Studies on Differentiated Practice

This section will examine professional nursing organization's position regarding nursing education. The Committee on Education of the American Nurses' Association (A.N.A.) issued its Position Paper on Education Preparation for Nurse Practitioners and Assistants to Nurses in 1965. They proposed only two levels of nursing education: the two-year community college program preparing technical nurses, and the four-year collegiate program preparing professional nurses. This position was reaffirmed in 1985 when the A.N.A.'s House of Delegates voted that preparation for professional nursing practice be completed

at the baccalaureate degree level and that the education requirement for licensure to practice technical nursing be completed at the two-year associate degree level (House votes associate as second title, 1985). Each of these positions indicated that nursing education should be offered in institutions of higher education, rather than in the service-oriented environment of hospitals.

Nursing graduates of these two programs must be utilized according to their educational preparation. The appropriate utilization of these graduates and opportunities to move from one program to another were the major issues in Ohio according to Boggs, Baker and Price (1987). The major nursing organizations formed in 1985 a research group called the National Commission on Nursing Implementation Project (NCNIP) to describe future nurses and their educational programs. NCNIP (1987) compiled data and information from nurse educators, nurse administrators, nurse practitioners and nurse researchers. Using a consensus-building process, the NCNIP board produced documents describing the characteristics of professional and technical nurses of the future and the educational programs needed to prepare them. The role & functions of the technical nurse will be described first.

Role of Associate Degree Nurse

The technical nurses' (A.D.N.) education should

consist of general education courses and natural and behavioral courses which support the nursing component of the program (National Commission on Nursing Implementation Project (NCNIP), 1987). The following paragraphs outline the responsibilities and education of the A.D.N. as suggested by NCNIP. Technical nurses should be graduates of associate degree programs in nursing and should provide an understanding of attitudes, beliefs and values of health behavior. The knowledge base of these nurses should provide an understanding patient problems from biological, social and psychological perspectives. Nursing curriculum should include a well-defined body of established nursing skills and knowledge which can be applied in problem-solving ways as technical nurses care for individuals and their families experiencing usual, and well-defined problems (National Commission on Nursing Implementation Project, 1987).

Technical nursing practice should include providing care to patients with well-defined health or illness problems in a structured environment. This care through the application of tested criteria and names includes implementation of a teaching plan, management of the individual plan of care, and data collection for the evaluation of nursing care. (National Commission on Nursing Implementation Project, 1987). In all situations the A.N.A. Code of Ethics will dserve as a guide for action by

technical nurses in clinical settings.

The Midwest Alliance in Nursing (MAIN), funded by the W. K. Kellogg Foundation, also studied the competencies of the associate degree and baccalaureate degree nurse. Their description of the role of the Associate Degree Nurse was similar to the NCNIP description.

ROLE OF THE ASSOCIATE DEGREE NURSE (A.D.N.)

The ADN is licensed registered nurse who provides direct care that is based on the nursing process and focused on individual clients who have common, well-defined nursing diagnoses. Consideration is given to the client's relationship within the family. The ADN functions in a structured health care setting that is a geographical or situational environment where the policies, procedures, and protocols for provision of health care are established. In the structured setting there is recourse to assistance and support from the full scope of nursing expertise.

The ADN uses basic communication skills with focal clients and coordinates with other health team members to meet focal clients' needs. The ADN recognizes the individual's need for information and modifies a standard teaching plan. The ADN recognizes that nursing research influences nursing practice and assists in standardized data collection.

The ADN organizes for focal clients those aspects of

care for which she/he is responsible. The ADN maintains accountability for own practice and for aspects of nursing care she/he delegates to peers, licensed practical nurses, and ancillary nursing personnel. Within a specified work period, the ADN plans and implements nursing care that is consistent with the overall admission to post-discharge plan. The ADN practices within accepted ethical and legal parameters of nursing (Midwest Alliance in Nursing, 1987, p. 24).

Role of the Baccalaureate Degree Nurse

NCNIP (1987) also identified the future characteristics and educational needs of professional nurses. They recommended courses in both liberal arts and nursing education, since health care needs will require an increase the knowledge base, especially in technology. Nursing graduates should have an understanding and appreciation of various disciplines, such as psychology, sociology, management and physiology. The knowledge base of the professional nurse must include the ability to think logically, analyze critically and communicate effectively (NCNIP, 1987). As liberally educated individuals, professional nurses should understand the influence of personal and social values on human behavior. Nursing knowledge will include theory, methods, procedures and ways

of knowing and understanding, analysis, and study of human events and services that are of importance to nursing (National Commission on Nursing Implementation Project, 1987). Professional nurses will assume primary responsibility for assisting individuals, families and groups to attain their maximum health potential. Practice will include providing direct care to clients in any setting; managing others giving care; adjusting plans for the delivery of nursing care; and engaging informal support systems and necessary resources. Practice also includes the roles of nurse administrator, educator or researcher (National Commission on Nursing Implementation Project, 1987).

The Code of Ethics from A.N.A. will continue to provide the framework for the development of ethical standards that will govern professional and personal behavior. Professional nurses will be accountable for all aspects of nursing care and for evaluating the outcomes of care delivered.

The MAIN project under the direction of Dr. Primm (1986), using a consensus process involving four sites and six nurses per site (2 A.D.N. educators, 2 B.S.N. educators and 2 hospital nurses), also defined the role of the Baccalaureate Degree Nurse. These two major projects, NCNIP and MAIN, both have examined the two levels of practice of

the registered nurse and agree on major components. The MAIN project describes the role of nursing as:

ROLE OF THE BACCALAUREATE DEGREE NURSE (BSN)

The BSN is a licensed registered nurse who provides direct care that is based on the nursing process and focused on clients with complex interactions of nursing diagnoses. Clients include individuals, families, groups, aggregates, and communities in structured and unstructured health care settings. The unstructured setting is a geographical or a situational environment that may not have established policies, procedures, and protocols and has the potential for variations requiring independent nursing decisions.

The BSN uses complex communication skills with focal clients. The BSN collaborates with other health team members and assumes an accountable role in change. The BSN assesses the need for information and designs comprehensive teaching plans individualized for the focal client. The BSN collaborates with nurse researchers and incorporates research findings into nursing practice.

The BSN manages comprehensive nursing care for focal clients. The BSN maintains accountability for own practice and for aspects of nursing care delegated to other health care personnel consistent with their levels of education and expertise. The BSN plans for nursing care based on identified needs of the focal client from admission to post-discharge. The BSN practices within accepted ethical and legal parameters of nursing (Des Moines Demonstration Center, 1984, Appendix A).

These studies from NCNIP and MAIN are the major forces in changing the practice of nursing to utilize the knowledge of nurses prepared at the two levels differently. DeBach (1986) states that these competencies must be moved from the education to practice by redesigning practice settings to support, encourage, reward, and expect differentiated practice. In an attempt to implement this idea Primm (1986) is piloting differentiated job descriptions in selected service institutions in the Midwest.

Differentiation in the role of the two levels of nurses should assist the articulation between the two levels. Nursing content for the associate degree nurse returning for a baccalaureate degree should focus on that content needed for the practice of professional nursing, not on duplication of content obtained at the associate degree level (Primm, 1986). For example, a program for professional nursing should provide students with experience and practice in managing interventions, teaching clients and delegating nursing activities (Boggs, et al., 1987).

Nursing Articulation and Higher Education Articulation

Nursing education is part of the total higher education in the United States. Articulation practices for nursing programs can benefit from the history and suggestions of articulation in higher education. The following section will present a brief history of articulation in higher education, articulation practices in specific states, concepts, principles, and policies on articulation, studies on articulation, academic success and current status of articulation. These articulation practices and concepts should be utilized by nursing education to enrich and develop nursing articulation.

History of Articulation

Articulation, the method or process of joining together, a procedure that provides a continuous, smooth

flow of students from grade to grade and school to school (Kintzer, 1973), has been discussed since formal educational programs began. Prior to the 1950s the transfer of students was between largely homogeneous institutions of higher education with essentially similar programs, faculty characteristics, students, mode of instruction, calendar, structure and grading requirements (Maclead, 1985). In the 1950s there was a demand for access, and community colleges began their explosive growth. The American Community College was founded to serve as a link between high schools and establishments of higher education (Cohen & Brawer, 1987). Articulation and transfer relations between two-and four-year institutions began as informal arrangements in the Midwest, then in the West as junior colleges were opened in California (Kintzer, 1985). Transfer of students was listed in the mission statements of most comprehensive community colleges (Prager, 1988). Formal agreements were gradually negotiated as the number of transfer applicants increased or when concerns over the transfer process occurred.

The transfer function of community colleges began to change noticeably with the national emphasis toward vocational education (Bogart & Murphey, 1985). The availability of education and the open access policy made education at the community college level very attractive. Many adults enrolled in courses that were not specifically

structure and grading requirements (Maclead, 1985). In the 1950s there was a demand for access, and community colleges began their explosive growth. The American Community College was founded to serve as a link between high schools and establishments of higher education (Cohen & Brawer, 1987). Articulation and transfer relations between two- and four-year institutions began as informal arrangements in the Midwest, then in the West as junior colleges were opened in California (Kintzer, 1985). Transfer of students was listed in the mission statements of most comprehensive community colleges (Prager, 1988). Formal agreements were gradually negotiated as the number of transfer applicants increased or when concerns over the transfer process occurred.

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In order to discuss and agree on articulation procedures, a national committee was established by the Association of American Colleges and the American

such terms as credit, college credit, vocational credit, and developmental credit, and to clarify the appropriate level for specific courses or programs to be offered.

Articulation also ensured common calendars, common high school and college transcripts, common test dates, and common data analysis for student grades and state reports. The original aim of Florida's articulation concept -- to help community college students to transfer -- has been expanded to include nearly every aspect of Florida's higher education enterprise (Palinchak, 1988).

Ten other states have followed Florida's example and have developed formal articulation agreements: Texas, Illinois, Georgia, New Jersey, Nevada, Oklahoma, Massachusetts, Rhode Island, South Carolina and Washington (Kintzer & Richardson, 1986). Each state has developed its own policies. New Jersey's full faith in credit policy mandates that all public state colleges award credit for general education courses that are part of the transfer degree programs of community colleges (Bowles, 1988). In California each community college specifies the baccalaureate-appropriate courses that public state colleges accept as transferable (Bowles, 1988). California's Academic Partnership Program, created by the state legislature, requires linkages among high schools, community colleges, and universities (Kintzer, 1985/86).

Concept of Articulation

In Pennsylvania, transfer has been approached as a concept. Woodbury (1988) has outlined the establishment of principles as a precondition for discussion between the community college and the transfer college. These principles are to protect the integrity of the associate degree and to ensure that a transferred student receive equitable treatment in a four-year institution.

The first principle, degree integrity, states that the associate degree should represent the first half of a baccalaureate degree, and that transfer students should receive junior class standing. The degree should stand on its own merits and be worthy of external, as well as internal, acceptance. The receiving college can set a minimum exit standard for acceptance of the associate degree, such as grade point average or course requirements.

The second principle is to ensure equitable treatment for the transfer student. The transfer student should receive treatment identical to that afforded the transfer college's native junior student (Woodbury, 1988). Woodbury also notes that institutional articulation does not preclude the possibility or even desirability of program-by-program articulation. Program articulation agreements should specify how transfer courses are to be

evaluated. Articulation agreements should provide for follow-up and feedback services to the transferring institution. Records of students' success or failure in the baccalaureate program could, with permission, be helpful to the transferring institution (Donovan & Schaier-Peley, 1988).

Woodbury (1988) contends that completion of the associate degree implies acceptability of the courses included, regardless of date of completion. With the possible exception of certain career courses in the nursing or allied health field, he believes that transferred credits should maintain their "worthiness over time."

Principles of Articulation

MacLead (1985) has identified seven principles as undergirding and making possible articulation without undue obstacles for the students' efforts, needs, interests and aspirations. The first is that no absolute or universal truth exists between access and quality. Any claim to truth ignores information and insight and is based on professional views and group values, and is therefore a matter of judgments.

The second principle is that no policy should be based or continued on untested or unverified assumptions. Recognition of an unwarranted expectation of absolute precision in dealing with credits and credentialing is the

third principle. Equivalences are difficult, especially in subjects that deal with human values, such as religion, philosophy and art, and need rigorous and constant examination.

The fourth principle is based on the following ideas. It is difficult to communicate the nature and content of academic courses. There is a pluralism of higher education which give different titles for the same courses, different professors for the same courses, and ambiguously stated institutional objectives. There are some helps in transferring credit although measurement of outcomes are still in a state of infancy. Principle four states that major efforts to determine credit equivalence such as the College Level Examination Program (CLEP), College Professional Examination Programs, the Regents exams, and American College Testing Programs, should be accepted and used (MacLead, 1985).

The fifth principle is simple, but important, according to MacLead. Students are complex beings, diverse, and changing, with many interests, goals, strengths and weaknesses. Education is sought, not only for professional fulfillment, but for personal satisfaction as well. Students have different learning styles and different needs at different times of their lives.

The sixth principle states that no matter how noble or

thoughtfully devised, the goals and objectives of a program may become dysfunctional. Educational and societal needs change, and programs must adapt (MacLead, 1985).

The final principle is that the best articulation system is voluntary, formal and flexible. This agrees with the conclusions of: the Urban Community College/Transfer

Opportunities Program (UCC/TOP) funded by the Ford Foundation. The UCC/TOP investigated twenty-four community colleges with sizable minority enrollments from across the country for three years (Donovan & Schaier-Peleg, 1988). Its report offers thirty-four practitioner-based recommendations divided into five initiatives that have contributed to successful transfer programs. Since these data were obtained using a field study, many of their suggestions worked for the specific institution and may be helpful to other educational institutions.

Articulation Policies

Documents from the eleven states with formal articulation agreements have some common features:

1. authorization or authority is tracked to the state constitution, state legislation, education code or master plan;
2. articulation services are included;
3. completion of the associate degree is the basic qualification for transfer; and
4. general education requirements prescribed in the degree completion packages

are presented in detail (Kintzer & Richardson, 1986).

About twenty other states have developed guidelines/policies that are systemwide rather than statewide. In New York, for example, a faculty-based articulation task force has developed a collaborative process to improve the transferability of credit within its multicampus system (Bowles, 1988).

While such policies represent broad institutional commitments to the advancement of the educational mobility of community college students, the implementation of such policies is often troublesome (Bowles, 1988). Richardson and Bender's (1985) study of articulation and transfer in public urban university systems documents a varying degree of success in transferring credits. These authors conclude that the awarding of transfer credit had not improved the decade and that senior colleges had become less willing to accept courses and grades earned in community colleges. Prager (1988) also notes the decline in transfer from community colleges to senior level institutions. In their attempts to establish a unique niche for public two-year colleges, some community college leaders have eschewed the transfer role in favor of other functions, such as technological education, community service and lifelong learning (Prager, 1988).

Studies on Articulation

A major recommendation from the UCC/TOP study and others reviewed (Bowles, 1988; Donovan & Schaier-Peleg, 1988; King, 1988; Robertson-Smith, 1988; Thomas, 1988) is improve effective communication, especially between administrators and faculty in two- and four-year colleges. The UCC/TOP study identifies a need to establish closer ties between the two types of colleges by jointly discussing curriculum, teaching strategies and outcomes. Faculty, counselors and administrators must coordinate the content and sequence of classes. Serious effort should be made to improve communication so that articulation will work. Students should not be confronted with two largely unconnected programs.

The UCC/TOP study also recommends that articulation agreements should be developed by key administrators, should be formalized in writing, and should be communicated to all faculty, counselors, administrators and students (Donovan & Schaier-Peleg, 1988). One or more individuals from each institution should be designated as special transfer counselors. These counselors should communicate frequently with students and the transferring college. Warmbrod and Long (1986), while investigating vocational programs and students' adjustment to the transfer process, formulated guidelines for anyone wanting to establish,

expand or improve articulation activities:

1. provide leadership and commitment from the top,
2. involve faculty early,
3. build relationships based on respect and trust,
4. ensure that all parties benefit,
5. put all agreements in writing,
6. communicate,
7. start small and build,
8. make someone responsible,
9. build competency-based curricula, and
10. focus on goals, not turf.

To initiate the articulation process, Warmbrod and Long suggest beginning with goals and issues that both institutions can agree upon and that will serve as the foundation for future work.

Academic Success of Community College Transfer Students

The academic success of community college transfer students has received attention in the literature. Nolan and Hall in 1978 summarized seventeen studies regarding the academic success of the transfer student and found these students to be at least equal to their four-year counterparts. A six-year longitudinal study completed by Halahan, Green, and Kelley (1984) concluded that transfers had slightly lower grade point averages than native students, but graduated in equal numbers. Swift (1986)

investigated 4300 transfer students from seven community colleges and found that 60.93% were successful in pursuing their goal of a four-year education. A more recent study showed that students who start in two-year colleges have a lesser chance to finish a bachelors degree than do those who start in four-year colleges (Velez, 1985).

In 1985 the American Association of Community, Technical and Junior Colleges Association (AACJC) called for encouraging the articulation of programs and easing student transfer, fair and equitable transfer of credit, and development of linkages. The Council of Universities and Colleges concurred (Kintzer & Richardson, 1986). This articulation was needed for colleges and for programs within colleges.

Current Status

Examining the current status of articulation in the changing environment of higher education is a complex and confusing process. Concern has been expressed that the education system needs to emphasize quality and to improve the ability of graduates to read, write and critically analyze situations. Along with the need to justify its existence, higher education is trying to cope with the realities of marginal/no growth funding and flattening/decreasing enrollments (Bogart & Murphey, 1985). Articulation activities stand in the middle of these

conflicting issues: the quest for quality on the one hand, and restricted funding and fading student population on the other (Kintzer, 1985/86).

Articulation agreements at the post-secondary level appear to be effective in facilitating the transfer of the community college student and to provide a valuable service to the student. As the number of high school graduates available to enter university study decreases, a carefully developed and broadly accepted articulation agreement becomes an effective marketing tool for community colleges, while at the same time assuring the receiving institution that a uniform and acceptable transfer process has been followed (Bogart & Murphey, 1985). Both elements are crucial if quality is to be championed in the rapidly changing environment of higher education (Bogart & Murphey, 1985).

Summary

In summary, the process of articulation in Higher Education in general and of nursing education in particular is inconsistent. Nurses prepared at lower-division levels are seeking educational articulation when applying to baccalaureate programs. These nurses use whatever means are available, such as challenge examinations, portfolios, transfer of general education credit or even repeating course work, to obtain credit for nursing courses.

Agreement has generally been reached that a difference between technical and professional nursing exists; however, differentiation in the practice setting has not been implemented. In addition, educational articulation between programs has lagged. Social, economic, educational, and legislative trends point to a need for educational flexibility without the sacrifice of quality.

The American Nurses Association's cabinet on nursing education has formulated a statement on nursing program articulation (American Nurses' Association, 1986) emphasizing the need for communication between and among nurse educators and stipulating that the goals and objectives required of a student upon entry and exit must be clearly communicated. The A.N.A. house of delegates (1986) has agreed on the following rights for any person wishing to pursue or advance a career in nursing through educational articulation:

The student has a right to

1. A course of study with an appropriate balance of nursing and liberal studies.
2. Expectation to transfer and apply credit earned at previous educational institutions to meet graduation requirements.
3. Access to clear and concise information from the receiving institution to facilitate realistic education and career planning.

4. Evaluation, validation and awarding of credits for previously acquired knowledge and skills not validated through the transfer process.
5. Faculty of nursing programs who are well-prepared to work with students who are educationally mobile.

(American Nurses' Association, 1986).

Based on this review of literature, specific topic areas and questions are identified for further study. These questions form the three research questions for this study. Specific subquestions of this first research question would include: 1. **What articulation practices are presently utilized in baccalaureate schools of nursing throughout the United States.**

What are the exact practices used to validate previous credit?

Is there a difference in these practices depending upon whether the coursework is a support class or a nursing class?

What demographic data of the baccalaureate program influence articulation agreements?

Is there direct communication and evaluation between the programs of nursing involved in the formal articulation agreement?

Are there formal articulation agreements?

2. **What factors influence the development or revision of articulation policies in baccalaureate schools of nursing**

throughout the United States. A subquestion would be, are articulation policies changing, and if so, why?

3. What are the emerging models of articulation in baccalaureate schools of nursing throughout the United States?

CHAPTER III. METHODOLOGY

The purpose of this chapter is to describe the methods used and procedures implemented in this study. The impetus to study articulation between A.D.N., diploma and B.S.N. programs and the factors that influence articulation policy-making came from three concerns: first, the investigator's experience as a nurse educator and a C.A.O. of a baccalaureate program; second, the observation that associate degree and diploma nurses are seeking upward mobility and want to complete advanced educational programs in nursing; and third, the confusion that exists over what are acceptable articulation practices that will preserve quality in B.S.N. programs.

Research Design

The research design for this study was a descriptive survey collected from nursing leaders throughout the U.S. This design was used to describe the prevalence or incidence of naturally occurring phenomena, in this study, articulation in nursing programs (Woods & Catanzaro, 1988).

Advantages of the survey approach with nursing leaders are numerous, including developing insight into situations, suggesting questions for future research projects, discovering new insights and methods, and eliciting the typical or average response (Treece & Treece, 1982). The

survey method provides data about the present and has a high degree of representativeness (Polit & Hungler, 1987). A further advantage is the ease with which an investigator can obtain respondents and information. The researcher can cover a broad range of phenomena in the real world. Treece and Treece (1982) summarize the advantages of a survey: it is objective, specific, practical, accurate, factual, enlightening and has a point of focus. Furthermore, according to Brink and Wood (1988), it is relatively inexpensive and respondents can remain anonymous.

Disadvantages of the survey method, however, also exist. The survey method offers little control over extraneous variables (Treece & Treece, 1982). The responses may be unreliable, and no causal relationship can be established. Other disadvantages are related to the very fact that a questionnaire is used. Respondents interpret the questions according to their frame of reference (Brink & Wood, 1988). The degree of response and the amount of information gathered per respondent is limited due to the individual subjects (Treece & Treece, 1982). In the current study, not all questions on each questionnaire were answered. Also, the investigator had no control over who answered the questionnaire. It was addressed to the chief academic officer of the nursing program, but the task of completing it could have been delegated to another staff

member. There was no opportunity to interact with the subjects and to clarify the questions.

Despite these disadvantages, the survey using a questionnaire is an important method to obtain data in education, social studies, nursing and many other fields of study. For the purpose of this study, the investigator determined that the survey questionnaire was the most efficient and effective method of data collection. Many of the studies cited in the review of literature utilized this method of inquiry.

Population

The population for this study was the chief academic officer (C.A.O.) of each National League for Nursing (N.L.N.) accredited baccalaureate school of nursing. The N.L.N. is officially recognized as the accrediting agent for national professional nursing accreditation by the U.S. Office of Education. The 1988 N.L.N. publications (National League for Nursing, 1988a and National League for Nursing, 1988b) list 503 accredited schools, located in both private and public colleges and universities. These schools are found in all states (except Wyoming) and in the District of Columbia, Puerto Rico and the Virgin Islands. They include schools offering only baccalaureate degrees, as well as those offering masters and/or doctoral degrees; schools for registered nurses only; and those for both first-time

students and registered nursing students. All are state-approved schools of nursing whose colleges or universities have regional accreditation.

Procedure

A survey instrument (Appendix A) and cover letter (Appendix B) developed by the investigator were sent to the chairperson, dean or head of the nursing program at each institution in January, 1989. They were mailed to all N.L.N. institutions, excluding fifteen institutions whom were including in the pilot study. The cover letter, addressed to each individual chairperson, dean or head, explained the purpose of the study and requested the recipient's cooperation in completing the questionnaire. The letter included a statement of confidentiality, the name of one of the co-major professors of the investigator, and the source to contact with any questions about the study.

The mailing included a coded articulation questionnaire (Appendix A) in booklet form and a return postage guaranteed addressed envelope. The respondents were requested to complete the questionnaire and return it by February 10, 1989. A postcard reminder (Appendix C) was sent to 277 respondents on February 7, 1989. On February 22, 1989, a second letter (Appendix D) with an identical articulation questionnaire was sent to the 194 respondents from whom the investigator had not received responses. They were asked to

mail the questionnaire by March 7, 1989. A total of 393 questionnaires were received by March 27 and were included in the data analysis.

Protection of Human Subjects

The questionnaire was anonymous; there was no request for names of either the respondent or the school. However, the booklet was coded for the purpose of sending follow-up letters. The study was approved by the Iowa State Human Subjects in Research Committee.

In the cover letter, confidentiality and anonymity were assured. The completion of the questionnaire was voluntary and constituted consent for participation in the research project. All questionnaires were kept in a metal locked cabinet accessible to only the investigator and the computer programmer. All questionnaires will be shredded and data tapes destroyed after completion of the study. The data were reported collectively; no individual data were reported.

Instrument

The data gathered were used to identify the articulation processes presently utilized by baccalaureate programs of nursing, the factors that influenced the development or revision of the policies on articulation, and the attitudes of nursing leaders toward the future of educational articulation. A review of the literature did

not reveal any instrument that could be adopted for use in this study. The National League for Nursing Office was also called in the search of an available tool. According to Dr. Judith Allen, N.L.N., New York, New York (Personal Communication, August 10, 1988), no instrument was available through their office or any other source.

The articulation questionnaire was developed, based from questions and factors cited in the review of literature. I.S.U. faculty and the Research Institution for Studies in Education (RISE) team assisted the investigator in the development of the questionnaire.

A pilot study was undertaken by sending the cover letter and questionnaire to each baccalaureate program of nursing in Iowa and to Dr. Mary Rapson, University of Maryland, requesting the chief academic officer of the program to complete the questionnaire and comment on its form and content. All persons responded, and their suggestions were incorporated into the final version of the questionnaire. Since questions were changed, these responses were not included in the data analysis.

The questionnaire (Appendix A) was divided into seven main sections: demographic information, enrollment, transfers, credits, policy, communication and future. Fifty questions were included in the tool. The majority of data would be obtained by the respondent checking the appropriate

response.

Questionnaire Format

The first five articulation questions (Appendix A) were developed to collect demographic data, about the parent institution, (1-2) and the baccalaureate nursing program (3-5). The review of literature revealed that a difference in articulation policy could be related to the type and size of institution and nursing program (Shane, 1983).

The next questions (6-9) requested information concerning the nursing program chairperson's initial nursing preparation, highest degree, and number of years in administration of a nursing program.

Questions ten through thirteen sought information on enrollment trends during the past five years and in the past year. The literature reported that schools of nursing with decreasing generic student enrollment may facilitate the R.N. student's transfer into the baccalaureate program for economic reasons. Also, the literature showed a decline in the number of generic students and an increase in registered nursing students in baccalaureate programs in the past five years (Secretary's Commission on Nursing, 1988).

The next group of questions (14-18) inquired about transferability or validation of support, elective or prerequisite courses from community or junior colleges. The review of literature demonstrated that these courses are

usually transferable (Bogart & Murphey, 1985). The next set of questions (19-21) asked about the direct transfer of credit in nursing courses from associate degree programs to baccalaureate programs and the restrictions, if any, on accepting direct transfer of nursing credit. This was followed by question 23 about different methods mentioned in the literature to validate knowledge from previous educational courses or experience. Question 24 asked if there were any difference in transfer policy between students prepared as A.D.N. or diploma nurses. The literature supported more A.D.N. courses being transferred directly into BSN programs; usually diploma courses could not be directly transferred (Shane, 1983).

The next group of questions (25-29) focused on graduation requirements in support and nursing courses and the number of credits allowed to be transferred or validated into a baccalaureate program of nursing.

Existence of a written articulation policy was the focal point for the next questions (30-32). Higher education literature advocated the establishment and frequent updating of an articulation policy (MacLead, 1985). Factors influencing the establishment and changing of the policy and identification of the three most important factors were requested (33-34). A specific question (35) about the impact of enrollment on the articulation policy

followed.

The next questions (36-39) were specifically formulated from recommendations on articulation from the community colleges and explored how to achieve success in articulation. They asked how information is given to prospective students, whether there are persons in the B.S.N. program directly responsible for articulation, whether there is a formal articulation agreement and whether there is a routine communication process between the A.D.N./Diploma programs and the baccalaureate nursing program.

The final set of ten questions (40-50) sought the opinions of the leaders of the B.S.N. programs about future articulation in nursing. Specific questions centered on increasing the number of registered nurse students, easing the transferability of nursing courses if the A.D.N. or diploma program is N.L.N. accredited or if the content is validated by the B.S.N. program, formulating more articulation agreements with A.D.N. or diploma programs, encouraging development of core curricula, and increasing collaboration among faculty of community colleges, diploma schools and the four-year programs.

Validity

Face validity was established for this instrument. The chief academic officer of each baccalaureate nursing program

in Iowa served as a validator.

Data Analysis

The data from the articulation questionnaire were analyzed by frequencies. Chi-square analysis was used to compare certain selective classification variables, such as public versus private, increasing versus decreasing enrollment, R.N. only program vs. generic and R.N. students and their acceptance of direct transfer of credit. The t-test on the difference of means for uncorrelated samples was used to analyze significant differences in opinions of the nursing leaders on the future of articulation dependent on type of nursing program (generic and R.N. or R.N. only), type of institution (public versus private) and whether the nursing program accepted direct nursing transfer credit from associate degree programs.

CHAPTER IV. RESULTS

Introduction

The data analysis chapter is organized according to the three research questions that were postulated in the first chapter. The data are reported in the form of frequencies that describe the answer to these research questions.

1. What are the practices of articulation utilized in baccalaureate schools of nursing throughout the United States?

2. What factors influence the development or revision of articulation policies in baccalaureate schools of nursing throughout the United States?

3. What are the emerging models of articulation in baccalaureate schools of nursing throughout the United States?

Survey response

A total of 393 survey responses were received from the 488 N.L.N. C.A.Os. Twenty-two of these were not included in the data analysis because of the inability of the respondent to complete the questionnaire due to time constraints, policy of the institution, no access to the chief academic officer of the nursing program, or a late return of the questionnaire. However were 371 questionnaires

were coded and are included in this data analysis. The response rate was 80.5 percent with a usable response rate of 76.0 percent.

Demographic Data

Characteristic of the respondents

Demographic data regarding the colleges or universities and their nursing programs are presented in Table 2. Of those who responded, there were more public than private institutions. The type of nursing program in the college or university is presented in Table 3. The respondent was instructed to check only one type of program.

Table 2.

Type of College or University, Public or Private Offering Baccalaureate Nursing Programs

Type	Frequency	Percentage
Public	208	56.2
Private	162	43.8
No response	1	

Table 3.
Structure for Nursing Programs Within the Parent Institution

Type	Frequency	Percentage
Independent		
College of Nursing	163	43.9
Part of Allied Health Center	44	11.8
Four-year liberal arts college	142	38.4
Four-year non-liberal arts college	4	1.0
Other	12	3.3
No Response	6	1.6

All states (except Wyoming and Iowa), were represented in the response also the District of Columbia, Puerto Rico and Virgin Islands were included. The number of schools responding per state ranged from one in Hawaii, Alaska, and Arizona to 25 in New York and 26 in Pennsylvania. This was consistent with the population since there is only one N.L.N. accredited baccalaureate program of nursing in each of the following states: Hawaii, Alaska, and Arizona.

A table indicating the response rates from states is found in Appendix E. This table graphically demonstrates the diversity of responses. Neither Iowa nor Wyoming is

listed on the table because the respondents from Iowa were used to pilot the questionnaire. Since changes were made based on the input from the fourteen Iowa respondents, their questionnaires were not included in this analysis. No B.S.N. programs of nursing were listed for Wyoming in the N.L.N. publications therefore no questionnaire was mailed.

The type, of tracks in Baccalaureate nursing program is presented in Table 4. Nursing programs may offer different tracks but each track lead to the same terminal objectives (National League for Nursing, 1988a). The majority of schools in this study had both generic and R.N. tracks. The generic track is a four year program for students who have no previous nursing licensure. The R.N. track is for those students who have an R.N. license and are working on their B.S.N. degree. This number of programs with both tracks is consistent with the population where 392 of the 488 programs mailed surveys had both tracks (National League for Nursing, 1988a). The R.N. only track indicates that the nursing program does not have a generic track and is an upper division program for R.N.s who are increasing their education by obtaining a B.S.N. degree. Only one external degree program is N.L.N. accredited, and this program responded. Since the majority of the programs, 363, have generic and R.N. tracks or R.N. only track, these two classifications will be used for chi square analysis.

Table 4.

Nursing Tracks in Baccalaureate Nursing Programs

Type	Frequency	Percentage
Generic	7	1.9
Generic and RN	298	80.3
RN only	65	17.5
External degrees	1	.3

A variety of degrees is offered by institutions with nursing programs (Table 5). As reported in the table some institutions offer more than one degree in nursing. Degrees in the other category refer to specializations such as pediatric nurse practitioner or nurse midwife certification.

Characteristics of Chief Academic Officer

The program's chief academic officer (C.A.O.) is in a pivotal position to influence policies for a nursing program (Donahue, 1985) including the articulation policy. Nursing leaders have been prepared in several different types of programs. These data are presented in Table 6 and indicate that the majority of C.A.O.'s initial preparation was at the B.S.N. level, and since then have earned a doctorate. Since doctorates in nursing are a recent degree offering, the

majority have earned their doctorates in areas other than nursing.

Table 5.

Nursing Degrees Offered by Surveyed B.S.N. Programs

Specific Degree Offered in Nursing	Frequency
Associate degree	55
Baccalaureate degree	371
Master's degree	150
Doctorate degree	30
Other	8

The program C.A.O.'s number of years in their present position ranged from 6 months to 29 years with an average of 5.5 years. One hundred and thirteen C.A.O.s were in their present position two years or less with only 52 in their position 10 years or more. The majority did not have previous experience as C.A.O. in another type of nursing program.

Experience as a C.A.O. in baccalaureate programs ranged from less than 1 year to 32 years with a mean of 6.8 years. Much of this experience occurred in their present position with the mean length of experience in the present institution being 5.5 years, and total experience as a

baccalaureate program C.A.O being 6.8 years. Eighty-one had two or less years experience and 100 had 10 years or more experience.

Table 6.

Initial Preparation and Highest Educational Degree of
B.S.N. Program Directors

Group	Frequency
Initial Preparation of Program Directors	
LPN	3
ADN	13
Diploma school	160
BSN	194
MSN	1
Highest Educational Degree of Program Director	
Masters in nursing	66
Masters non nursing	2
Doctorate in nursing	85
Doctorate non nursing	214
Other	4

Nursing Enrollment in Past Year and Five Years

A decline in enrollment in baccalaureate programs of nursing, especially in the past five years has been the national trend (Secretary's Commission on Nursing, 1988). Baccalaureate schools in Iowa have experienced a slight increase in enrollment in the past year. Table 7 depicts the enrollment increase, decrease or maintenance during for the last year as well as the last five years for the total nursing program, the generic track and the R.N. track.

The exact percentage of increase or decrease in nursing program enrollment was requested on the questionnaire, but the majority of respondents did not respond. The number of programs and percentage of change for those who did respond can be found in Appendix F.

The final question regarding enrollment asked whether the generic, R.N. or both tracks were being eliminated. Of 370 responses to this question, only one said the generic track was being eliminated, only three indicated the RN track was closing and an additional one responded that both track were being eliminated. Two of the questionnaires that were returned, unanswered, did indicate that their programs were closing and no one was available to respond to the questionnaire.

Table 7.

Nursing Program Enrollment Patterns by Institutional
Numbers for Past Year and 5 Years

Change	5 year	Percentage of those responding	1 year	Percentage of those responding

Total Program (Generic and R.N. tracks)				
	N		N	
Increased	94	26.6	150	41.1
Same	53	15.0	111	30.4
Decreased	207	58.4	104	28.5
No Response	17		6	

Generic Track only				
Increased	49	13.7	116	31.7
Same	39	10.9	80	21.9
Decreased	203	56.7	103	28.1
No program	67	18.7	67	18.3
No response	13		5	

R.N. Track only				
Increased	203	58.5	183	49.9
Same	87	25.1	117	31.9
Decreased	51	14.7	61	16.6
No program	6	1.7	6	1.6
No response	24		4	

Support Courses

Since the baccalaureate nursing curriculum included both support courses and nursing courses, this investigator sought information regarding acceptance of support courses. Support courses could be transferred from junior or community colleges in 367 of 371 programs. The majority (272) of the colleges or universities had no limit or at least 40 semester hours could be transferred into an institutions. Several respondents indicated a policy in place at their institution specifying the number of semester credit hours that must be completed at the degree granting institution. The most frequent requirement was thirty credit hours. Although there was a required number of minimum hours to be taken at the degree granting institution for graduation, these institutions did not limit the number of credits accepted by transfer.

Programs also accepted support courses whose content had been validated. Of 370 responses, 327 indicated that their institution accepted validated support course credit. Table 8 summarizes the methods used to validate transfer credit and the frequency of the acceptance of that type of validation. Some institutions utilized more than one method of validation. In the "other category", the most frequently mentioned test was the N.L.N. pharmacology examination.

The number of semester credit hours that could be

validated ranged from 4 to 100 with 177 programs indicating no limit. The most frequent number of actual credit hours validated was 30 (39 respondents).

Table 8.

Support Course Validation Methods Accepted by Degree

Granting Institutions

Type	Frequency
College level examination program	267
Teacher made challenge exams	174
American college testing tests	153
Other	59
Portfolio	54

Nursing Credit

Some schools not only accepted support credit, but they also accepted nursing course credit. When asked if they accepted direct transfer of nursing credit from community or junior colleges, 169 programs said yes, 200 said no, and two did not respond. Some programs indicated that the courses accepted were nonclinical, such as pharmacology or nutrition. When broken down by public versus private institutions, 94 of 207 (45.4%) public institutions accepted direct credit while 75 of 161 (46.6%)

private institutions did. The restrictions that influenced the acceptance of direct credit for nursing courses for the 169 programs are presented in Table 9. These restrictions narrowed the direct transfer of nursing credit accepted by the degree granting institution. The most frequently mentioned restriction was that the A.D.N. program had to be N.L.N. accredited.

Table 9.

Nursing Course Restrictions for Direct Transfer of Nursing Credit

Restriction	Frequency
NLN accredited	94
Validate Content	67
Other Restrictions	44
Formal Agreement	20
No Restrictions	19
Same School	7
Same State	6

Table 10 presents a table of the number of direct transfer of nursing credits accepted by 169 baccalaureate programs. Direct transfer of 20 hours or more were accepted by 106 institutions.

Direct transfer of credit was cross tabulated with enrollment changes for the entire program for one and five years, Table 11. This was done to investigate if the increase or decrease in enrollment influenced or was influenced by the acceptance of direct transfer of nursing credit. No pattern was demonstrated by the data.

Table 10.

Numbers of Nursing Credit Hours Transferred to the
Baccalaureate Nursing Program

Semester Credit Hours	Number of Institutions accepting credit
0-5	16
6-10	18
11-15	12
16-20	15
21-25	27
26-30	48
31-35	22
More than 35	9
No response	2

Direct transfer was related to the two types of programs and the frequencies of acceptance of direct transfer of nursing credit (Table 12). The chi-square was 10.33 for the D.F. of 1 and significance level of .001. A significant finding was that R.N. only programs accepted direct credit for nursing courses more than generic and R.N. programs did.

Table 11

Direct Transfer of Nursing Credit and Change in Enrollment for Nursing Program by Number of Programs

Transfer	Increase	Same	Decrease	No Response

	One Year			
Yes	61	53	51	4
No	87	58	53	4

	Five Years			
Yes	44	26	92	7
No	50	27	113	12

The N.L.N. accredited baccalaureate nursing programs surveyed also validated previous nursing credit. This was true for the R.N. only programs and the generic plus R.N.

award credit or advanced placement for previous nursing education and experience for R.N. students. Both public and private schools validate nursing credit (193 public institutions, 150 private institutions). Table 13 summarizes the methods used for awarding the credit. Some programs did indicate that they used more than one method to validate nursing credit.

Table 12.

Direct transfer of Nursing credit and Type of Nursing Program

Type	Yes	No	Chi Square
Generic and R.N.	124	173	10,33**
R.N. only	42	23	
No response	3	6	

** Significant at .001 Level

The advanced placement option was analyzed according to program types. The majority of programs did allow for validation of previous knowledge; this was also true for the type of nursing programs. The Generic and R.N. program validated credit in 279 schools out of 295 and R.N. only validated in 60 out of 65 responding schools.

Table 13.

Nursing Credit Validation Methods for R.N. StudentsAccepted by the B.S.N. Programs

Method	Frequency
NLN mobility tests	171
Teacher made exams	149
ACT/PEP tests	117
Clinical skills validation	115
Direct transfer	104
Nursing final exams	51
Portfolio	45
Other methods	41
Lower division only credit	40

Transfer Differences Between Diploma and A.D.N. Programs

Question 24 asked if there was any difference in transfer policy by the receiving institution if the student was initially prepared as an A.D.N. or diploma nurse. If there was a difference, the respondent was to specify the difference. When responding to this question, 117 programs reported a difference. Among these 117 programs the most frequently mentioned difference was the acceptance of some direct transfer of Nursing credit from A.D.N. programs.

Further analysis comparing the type of nursing program and differences in policies are indicated in the following table.

Table 14.

Transfer Policy Differences Between A.D.N. and Diploma Nurses Based on Type of Program

Type of program	Transfer Policy different		Chi-Square
	Yes	No	
Generic and RN	84	213	9.80**
RN only	32	33	
No response	1	8	

** Significant at .001 Level

The Chi-square for a D.F. of 1 was 9.80 which was significant at the .001 level. The policy for accepting credit was more likely to be the same for A.D.N. and Diploma graduates than would be different especially in the Generic and R.N. programs.

No significant difference was found in the transfer policy difference question between public versus private schools. The Chi-square was .3579 with a .54 level of significance.

Credits for Graduation

The exact number of nursing semester credit hours needed for graduation required by programs ranged from 22 to 98 with a mean of 56.31 hours. The most frequent number of credits required was 60 (34 programs). Nineteen schools did not respond to this question.

The number of semester credit hours accepted or validated from A.D.N programs ranged from none to 67 with a mean of 27.95. Similar data were reported for nursing credit from diploma schools. The number of semester hours ranged from none to 67 with the mean being 27.49 hours accepted or validated.

The total number of nonnursing credits required for graduation ranged from six to 98 with a mean of 67.3. Sixty credit hours was the most frequent response from 32 schools while 26 schools required 64 hours of support courses. The number of credit hours that can be transferred ranged from 12 to 90 with a mean of 57.6 credit hours. Seventy schools indicated a limit of 60 hours that could be transferred while 46 schools limited students to 64 semester credit hours.

Articulation Policy

The second research question, what factors influence the development of articulation policies in baccalaureate schools of nursing throughout the United States is addressed

in this section. The majority (252 or 67.9 percent) of schools that responded to the questionnaire had an articulation policy. Changes in articulation policies in the last five years were reported by 142 and changes in the last three years were reported by 115 programs. Table 15 summarizes the reasons for the changes and the frequency of the response for these 252 schools. Schools responded with more than one reason and the reasons are not mutually exclusive. Some of the factors included in the other category were change in nursing faculty's philosophy, change in the N.L.N accreditation criteria, structural change in the program, and change in the administration of the program.

Table 15.

Reasons for Changes in Articulation Policies

Reason	Frequency
Flexibility for RN students	200
Attractiveness of Program	135
Economic Reasons	68
Political Pressure	18
Legislative Mandate	16
Pressure from College Administration	15
Other factors	71

The following question requested the respondent to rank the most important factor influencing development or revision of the articulation policy. The most frequently mentioned factor was flexibility for R.N. students. It was ranked first by 124 schools, second by 56 schools and third by 14 schools. Furthermore, it was ranked in one of the three positions by 194 of 208 respondents. The second most frequently mentioned reason was attractiveness of the program, which was ranked first, second or third by 146 of the 208 respondents.

Enrollment and economic reasons did affect the articulation policy of 79 of the 252 schools. It was listed in 80 of the respondents reasons for developing or revising their articulation policy.

Communication

Prospective students need to seek information about programs of nursing from the schools they are attending. Table 16 lists the methods used to transmit information to interested registered nurses. The "other" category included responses such as open houses on campus, word of mouth from satisfied students and graduates, and career days.

Articulation Responsibility

A variety of responses were given to question 37, "who is responsible for articulation of registered nurse students?". The researcher categorized the responses into

eight different areas. Table 17 presents responses and their frequency. If more than one response was given, only the first response was coded. Committees of the College included both the curriculum committee and the admission, progression and graduation committee. The R.N. coordinator in the larger university settings was referred to as an associate or assistant dean.

Question 38 ask if the B.S.N. programs had formal signed articulation agreements, 77 programs had agreements while 289 institutions had no agreements. Seven programs
Table 16.

Methods of Communication to Prospective R.N. Students

Method	Frequency	Percentage
Brochure	313	84.4
Hospital or agency visit	281	75.7
Letter	252	67.9
Visiting schools	246	66.3
Telephone call	211	56.9
Counselor	171	46.1
Advertisement	156	42.0
Class presentation	137	36.9
Other	57	15.4

Table 17.

Persons Responsible for Articulation of R.N. StudentsIn B.S.N. Programs

Responsible party	Frequency	Percentage
R.N. coordinator	131	37.4
Dean, chair, head	67	19.2
Nursing committee	62	17.7
Academic advisor	36	10.3
Nursing faculty	35	10.0
Admission office	12	3.4
No one	4	1.1
College committee	3	.9

did not respond. Sixty B.S.N. programs had agreements with A.D.N. schools, 8 with Diploma schools and nine with both. The number of separate agreements ranged from 1 to 36 with a mean of 4.30. Nineteen schools had one agreement and ten had 2 agreements.

Ongoing planned communication was in progress at 247 of the 362 schools responding to question 39. The most frequent type of program communication was between A.D.N programs and the baccalaureate nursing program (176 schools). Sixty-one indicated communication with both ADN

and diploma programs, and nine reported ongoing communication with only diploma programs.

Future of Nursing Articulation

The final ten questions of the survey instrument were designed to seek the opinions of the Chief Academic Officer concerning the future of educational articulation in nursing. The questions focused on the third research question, "What are the emerging models of articulation in baccalaureate schools of nursing throughout the United States?" Future questions utilized a likert scale response where 1 represented strongly disagree, 2 disagree, 3 neutral, 4 agree and 5 strongly agree. Table 18 presents the exact questions and a summary of responses.

T-tests were performed on the mean scores for each of the ten future questions with demographic variables. Table 19 presents the mean scores, the t-test values, and the two tail probability for each of the future of articulation questions for private versus public colleges or universities. The only question that revealed a significant difference at the .05 level was the second future question. Private school C.A.O.s expressed a higher level of agreement with the statement that there will be acceptance of direct credit from N.L.N. accredited A.D.N. programs into baccalaureate program than did public school C.A.O.s.

Table 18.
Results of Ten Future Questions

 Question 1: There will be more RNs
 initially prepared
 at the associate
 degree or diploma
 level seeking BSNs.

	<u>Frequency</u>	<u>Percentage</u>
Strongly disagree	13	3.5
Disagree	23	6.3
Neutral	20	5.4
Agree	131	35.6
Strongly Agree	181	49.2
No Response	3	

Mean=4.20

Question 2: There will be acceptance
 of direct transfer of
 nursing credit from
 NLN accredited ADN
 nursing programs into
 baccalaureate programs.

Strongly disagree	27	7.3
Disagree	97	26.3
Neutral	39	10.6
Agree	148	40.1
Strongly agree	58	15.7
No Response	2	

Mean=3.30

Question 3: There will be acceptance
 of direct transfer of
 nursing credit from NLN
 accredited diploma nursing
 programs into baccalaureate
 programs.

Strongly disagree	108	29.5
Disagree	159	43.4
Neutral	49	13.4
Agree	37	10.
Strongly agree	13	3.6
No Response	5	

Mean=2.15

Table 18. (continued)

Question 4: There will be more direct transfer of nursing credit into baccalaureate programs from ADN programs that have their nursing content validated.

Strongly disagree	9	2.5
Disagree	43	12.0
Neutral	53	14.8
Agree	185	51.7
Strongly agree	68	19.0
No Response	13	

Mean=3.73

Question 5: There will be more direct transfer of nursing credits into baccalaureate programs from diploma programs that have their nursing content validated.

Strongly disagree	66	17.8
Disagree	106	28.6
Neutral	64	17.3
Agree	88	23.7
Strongly agree	33	8.9
No Response	14	

Mean=2.7

Question 6: There will be more baccalaureate programs of nursing offering options so that students can obtain B.S.N.s.

	<u>Frequency</u>	<u>Percentage</u>
Strongly disagree	4	1.1
Disagree	10	2.7
Neutral	16	4.3
Agree	153	41.2
Strongly agree	181	48.8
No Response	7	1.9

Mean=4.37

Table 18. (continued)

Question 7: There will be more effort to develop formal articulation agreements between associate degree programs and baccalaureate degree programs.

Strongly disagree	5	1.4
Disagree	17	4.6
Neutral	45	12.2
Agree	176	47.7
Strongly agree	126	34.1
No Response	2	

Mean=4.09

Question 8: There will be more effort to develop formal articulation agreements between diploma programs and baccalaureate degree programs.

Strongly disagree	51	13.9
Disagree	104	28.4
Neutral	85	23.2
Agree	85	23.2
Strongly agree	41	11.3
No Response	5	

Mean=2.89

Question 9: There will be encouragement to develop a core curriculum in two-year programs in order to enhance the articulation process with four-year programs.

Strongly disagree	8	2.2
Disagree	36	9.8
Neutral	77	21.0
Agree	175	47.8
Strongly agree	70	19.2
No Response	5	

Mean=3.72

Table 18. (continued)

Question 10: There will be increased professional collaboration and conferences for faculty from community colleges and universities on articulation.

Strongly disagree	3	.8
Disagree	14	3.8
Neutral	59	16.1
Agree	203	55.5
Strongly agree	87	23.8
No Response	5	

Mean=3.98

Scale for all questions

Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

The majority of respondents had either R.N. only programs or generic plus R.N. programs. When this difference was used to analyze the ten future questions, three questions were found to have significant differences at the .05 level. R.N. only program C.A.O.s expressed more agreement with: question two, accepting direct transfer of nursing credit from N.L.N. accredited A.D.N. programs, question 5, accepting validated credit from diploma programs and question 7, that there will be more effort to develop formal articulation agreements between A.D.N. programs and baccalaureate degree programs. Table 20 provides the mean scores, the t values, and two tail probability for each of the ten future questions.

Table 19.
Future Questions (1-10) t-Test Values Based on Public
Versus Private Colleges or Universities

Question	Mean		T-test Value	Probability
	Public	Private		
1	4.24	4.16	0.72	.470
2	3.19	3.46	2.15	.033*
3	2.12	2.19	0.63	.532
4	3.64	3.84	1.94	.053
5	2.73	2.81	0.58	.566
6	4.40	4.32	0.93	.355
7	4.08	4.10	0.25	.802
8	2.79	3.03	1.85	.065
9	3.69	3.74	0.54	.592
10	3.99	3.96	0.27	.785

* significant at .05 level

The third demographic variable that was tested with the future questions was, "does your college accept direct transfer of nursing credit?" When t-tests were calculated, three questions were found to be significant at the .05 level. Colleges or universities that did accept direct

credit for nursing courses were more agreeable to: question 2, accept direct credit from N.L.N. accredited A.D.N. programs, question 4, accept validated credit from A.D.N. programs and question 7, there will be more effort to have formal agreements with A.D.N. and baccalaureate programs. These colleges were not as negative (as those colleges or universities that did not accept direct credit for nursing Table 20.

Future Questions t-Test Values for Generic and R.N.

Programs Versus R.N. Only Programs

Question	Mean		T-test Value	Probability
	Generic	R.N. Only		
1	4.19	4.25	0.45	.652
2	3.12	4.11	6.19	.000**
3	2.13	2.28	1.01	.313
4	3.67	3.92	1.88	.061
5	2.71	3.06	1.99	.048*
6	4.38	4.25	1.13	.260
7	4.04	4.31	2.26	.024*
8	2.83	3.15	1.91	.056
9	3.69	3.86	1.28	.203
10	3.95	4.05	0.86	.391

* Significant at .05 level

** Significant at .001 level

courses) in answering question 3, accept direct credit from N.L.N. Table 21 presents the mean scores, t-test values and the two tailed probability for each of the future questions.

Table 21.

Future Questions t-Test Values for Programs That Accept Direct Transfer of Nursing Credit and Those That Do Not

Question	Mean		T-test Value	Probability
	Yes	No		
1	4.27	4.15	1.13	.258
2	3.87	2.83	8.92	.000*
3	2.32	1.99	2.95	.003*
4	3.98	3.51	4.56	.000*
5	2.86	2.69	1.23	.218
6	4.41	4.33	0.96	.337
7	4.19	3.99	2.20	.029*
8	2.90	2.89	0.12	.906
9	3.81	3.64	1.69	.091
10	4.05	3.91	1.75	.082

* Significant at .05 level

** Significant at .001 level

Future Question Trends

In order to determine a trend for the future of nursing articulation, the investigator examined the mean score for the ten future questions. Three of the future questions (numbers 3, 5, and 8) concerned diploma programs and the mean score for all three was in the disagree range, below 3.0. Scores from these three questions were averaged into a new variable and t-test analysis was computed using the same three demographic variables used for all the future questions: public versus private, generic and R.N. versus R.N. only, and accept direct transfer of nursing credit or not. The t-test value was significant at the .05 level for the generic and R.N. program versus the R.N. only program. The R.N. only programs C.A.O.s disagreed less than the generic and R.N. program C.A.O.s. The mean scores, t-test values and the two tail probability are presented in Table 22.

Since the other seven questions had a positive score (above 3.0) the investigator also computed a total score for them. These mean scores were then analyzed using the same three demographic characteristics. Two of the three tests were statistically significant at the .05 level. Programs for R.N. only and those programs that already accept direct transfer of nursing credit indicated a higher level of agreement with the seven future questions. The mean scores,

t-test values and two-tail probability are presented in Table 23. Overall the two programs that had more favorable attitudes towards the future of articulation were the R.N. only programs and those that already accept direct transfer of nursing credit. This analysis was done to investigate if any trend in nursing articulation emerged from the data.

Table 22.

Average Response to Diploma Questions (3, 5 & 8) on the Future t-Tests with Selected Demographic Variables

Demographic	Mean	T-test value	Probability Variable
Public	2.55	- 1.35	.178
Private	2.69		
Generic and R.N.	2.57	- 2.04	.042*
R.N. only	2.84		
Accept Transfer	2.71	1.83	.069
Does Not Accept Transfer	2.52		* Significant at .05 level

Comments

The final question provided the respondent an opportunity to comment on the questionnaire. The majority, 316, did not write specific comments on the questionnaire. The investigator categorized the respondents comments relating to articulation into eight areas. Four administrators commented that the diploma schools in their state were closing, and four more indicated that there were no diploma schools in their state. Eleven noted that legislation was in process or was anticipated if changes were not made. Eight thought it was important to develop programs and seventeen advocated programs that were educationally sound. Three thought that program development would be slow while three indicated no relationship between A.D.N. and baccalaureate education. Those C.A.O.s who indicated no relationship between the educational programs also strongly opposed any articulation for nursing. Five feared that with the increased emphasis and availability of articulated programs that A.D.N. to B.S.N. would become the expected way instead of the four year generic programs.

Table 23.

Average Seven Agree Future Questions (1, 2, 4, 6, 7, 9, &
10) t-Tests with Selected Demographic Variables

Demographic Variable	Mean	T-test value	Probability
Public	3.91	-0.64	.525
Private	3.95		
Generic and R.N.	3.88	-2.90	.004*
R.N. only	4.11		
Accept Transfer	4.09	5.01	.000**
Does Not Accept Transfer	3.79		

* Significant at .05 level

** Significant at .001 level

CHAPTER V.

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Discussion

This investigation was initiated to examine articulation practices and policies, and future options as described by the Chief Academic Officers (C.A.O.) of Baccalaureate Programs of Nursing. Each National League for Nursing (N.L.N.) accredited program of nursing was mailed an articulation questionnaire. The questions were classified into seven sections: demographic information, enrollment, transfers, credits, policy, communication, and future. The study examined existing programs and C.A.O.s perception of the future for nursing articulation.

Data from the questionnaires were coded and analyzed utilizing frequencies, chi-squares, and t tests. The 393 responses represented every state in which a program is available except Iowa. The C.A.O.s of Iowa were used to pilot the instrument and that data were not included in the final study. Respondents represented private and public institutions, independent College of Nursing, Colleges of Nursing that are part of Allied Health Sciences Centers, four year liberal arts college and four-year nonliberal arts colleges. The majority of nursing programs offered either generic and R.N. tracks or an R.N. only track. The number of full-time equivalent nursing faculty were also diverse,

ranging from 2 to 240. The specific degree offered also corresponded to those offered in the total population. All the respondents offered baccalaureate degrees in nursing, 150 offered master's degree granting and 30 doctoral degree granting institutions.

Chief Academic Officer

The initial nursing preparation of the majority of C.A.O.s was at the baccalaureate level, however diploma schools provided the initial education for 43 percent of the respondents. Most of C.A.O.s hold the doctorate degree. Since this is an accreditation requirement of the N.L.N. this was an expected finding. Of these who did not have their doctorate, some indicated that they were doctoral candidates or were in the process of completing requirements for the degree.

The majority of the C.A.O.s had limited experience as chief academic officer in nursing programs other than baccalaureate programs. C.A.O.s as a group have been in their present position for an average of 5.5 years with the mean number of years as C.A.O. in B.S.N. programs being 6.8 years.

Enrollment changes

Enrollment patterns appear to follow the national trend (Secretary Commission on Nursing, 1988) in that the majority of programs have experienced a decrease in enrollment,

especially in their generic track. However, this investigator was unable to specify the specific percent of change in enrollment because the responses were somewhat limited.

A five year summary revealed that the enrollment for the R.N. track did show growth in 203 programs while 87 programs remained approximately the same. The data for the past year indicated an increase in enrollment occurred for the 183 programs in the R.N. track while 117 programs remained approximately the same. Of the 393 responses, seven schools closed one or more of the tracks. These closings were usually related directly to enrollment of the college, as well as to the nursing program. Since there was an increase in R.N. enrollment during this time of decrease in generic enrollment, some programs were surviving on the revenue generated in the R.N. track. The increase in enrollment in the R.N. student population may have enabled the total program to survive.

Support Courses For Baccalaureate Degree in Nursing

The overwhelming majority of programs (367 of 371) transfer in a large number of credit hours for support courses. These courses needed to have content equivalent to the courses for which they were transferred or they were considered elective credit (Bowles, 1988). The investigator did not inquire regarding formal agreements for transfer of

support courses. Some programs that allow transfer of courses do not count these support courses toward core requirements (Bowles, 1988).

Support courses that had been validated were accepted for credit by 327 of 370 programs. The most frequent methods of validation listed were the College Level Examination Program (CLEP) (267) and the American College Testing examinations (153). The limits of validated hours ranged from four to no limit. The type of test and the content covered limited the number accepted. Thirty-nine respondents indicated a maximum of 30 credit hours that could be validated. The acceptance of validated content insures quality of the work while allowing alternatives to the classroom course work. Students who have obtained knowledge in a variety of ways are able to validate their knowledge (MacLead, 1985).

Nursing Credit Required for Baccalaureate Degree

Baccalaureate programs also accepted some direct credit from associate degree programs for nursing courses at 169 of 368 responding institutions (45.9 %). The most frequently mentioned restriction for direct transfer of nursing credit was that the A.D.N. program was required to be N.L.N accredited otherwise no credit in nursing would be accepted by the baccalaureate program. Sixty-seven Baccalaureate programs validated the content in the courses from A.D.N or

diploma programs before they would accept direct transfer of nursing credit. The number of transfer credit hours accepted varied widely with 106 programs accepting more than 20 semester hours. However, no breakdown was made for clinical or nonclinical courses. Some of the respondents specified that they only accepted direct transfer of nursing credit in nonclinical courses, such as nutrition and pathophysiology. When the data were categorized into public versus private baccalaureate institutions, there was no difference in the percentage of programs that accepted direct transfer of nursing credit.

R.N. only programs did accept direct transfer of nursing credit in 42 of 65 programs (64.6%), while the generic and R.N. programs accepted direct transfer in 124 of 297 programs (41.8%). The R.N. only programs were utilizing this option to attract and give options to the R.N. students.

The increased frequency of direct transfer credit is reflective of a change in B.S.N. programs. The N.L.N. has not permitted schools who allow direct transfer of credit without validation of previous learning through an accepted evaluation method to be accredited (Shane, 1983). This lack of direct transfer of nursing credit was the primary reason why the Maryland legislature became involved in nursing articulation (Feldman et al., 1987).

Findings from this study should encourage more programs to examine their curricula and to develop articulation policies based on educationally sound principles rather than on the fear of losing or not obtaining N.L.N. accreditation. The accreditation body (N.L.N.) must be both responsive to the needs of members and open to change in accreditation criteria. These changes should be based on research rather than on tradition. Institutions must review their policies on articulation to determine if they are the primary reason for any lack of enrollment.

Generally speaking programs were willing to accept some transfer nursing credit that had been validated by a variety of methods. Of the schools surveyed, 344 or 93.7 percent allowed for credit validation. The methods accepted to validate nursing knowledge included: N.L.N. Mobility tests (171 programs), teacher made exams (149 programs), ACT/PEP tests (117 programs) and clinical skills validations (115 programs). Some programs accepted more than one validation method for their R.N. students. The credit hours validated ranged from none to 67 hours with a mean of 27.95 for A.D.N. prepared nurses and 27.49 for diploma prepared nurses. Since the mean number of nursing credits required for graduation in the surveyed nursing programs average 56.31, approximately one-half of the total nursing hours from A.D.N. or diploma programs could to be validated.

When compared to total credit hours needed for graduation, nursing credits averaged a little less than one-half of the total needed credit hours. The average number of support credit hours required was 67.3 with a range from 6 to 98. The majority of these support courses could be transferred and/or validated. The average number of credit hours transferred and/or validated was 57.6 hours. Nursing programs and colleges seem more willing to transfer and validate support courses than they are nursing credit. These findings correspond with the principles identified by MacLead (1985). Both studies revealed the difficulty in transferring credit in subjects that deal with human values.

Nursing courses are an example of subjects that are difficult to transfer. Before transferring courses most nursing faculties want to insure that courses are current in the rapidly evolving health care environment and that they emphasize and include ethics and moral decision making.

Articulation Policy

The majority of the programs surveyed had a published articulation policy (252 or 67.9 percent). Articulation policies had changed in 142 or 56.3 percent of the programs during the past three years. The most frequent reason for changing the policy was to increase options for R.N. students.

The driving force behind the change in articulation

policies related directly to the R.N.s who were being educated. Flexibility for R.N. students was ranked the major reason that programs changed their articulation policy. The second most mentioned factor for revising or developing an articulation policy was attractiveness of the program. Economic reasons were cited as another important reason for change in articulation policies. The need to be fiscally responsible is paramount to the continuation of any program and therefore any decrease in enrollment results in a corresponding decrease in revenue.

Changes in articulation policies will make baccalaureate education more accessible and attractive to R.N. students. However caution must be exercised so that these changes are based on educational principles and that quality is preserved.

Methods of Communication to R.N. students

Brochures were the most common form of communication to inform potential students of their options in obtaining a B.S.N. degree. This information would include articulation options. Hospital or agency visits were the second most popular method used (281 programs) to promote programs. These visits included both formal arranged times or informal times when instructors were supervising generic students and were interacting with the agency personnel. Letters, school visitations, and telephone calls were also listed as popular

recruiting options.

An articulation officer or a committee responsible for articulation of registered nurse students existed in 346 of the 350 programs. The most frequently named articulation officer (131 programs) was an R.N. Coordinator or Assistant Dean. The program's C.A.O. was the designated person in 67 programs, and a nursing committee shared the responsibilities in 62 programs. The responsibility for nursing articulation remained within the nursing program not within the general college in 331 programs out of 373. This assignment of responsibility for articulation corroborated the recommendations of Warmbrod and Long (1986).

Only 27 percent of the nursing programs had formal articulation agreements in writing with the majority of these agreements being with A.D.N. programs. Some schools indicated that they were working on formal agreements. Even though there were few formal articulation agreements, there was ongoing planning and communication with the other R.N. preparatory programs in 68 percent of the baccalaureate programs. The majority (96%) were with A.D.N. programs or both A.D.N. and diploma programs. Donovan and Schaier-Peleg (1988) supported the need for dialog to ease the transition for the students. As a result of this on going dialog knowledge is communicated, and understanding of curricula

is developed. Since nursing curricula do change, the updating and sharing enables, the student, the transferring and the accepting institutions to remain current and informed about the curricula.

Future

The ten questions (40 to 49) regarding future direction of nursing articulation focused on C.A.O.s' perceptions of the future. The future of diploma education programs is questionable. The C.A.O.s responded negatively to the three questions (3,5,and 8) dealing with future agreements with the diploma schools. In their opinion the movement of nursing education from diploma programs into A.D.N. and B.S.N. programs would strengthen the academic position of nursing as a profession. With the elimination of diploma programs the hospitals could focus their work on caring for the ill while the educational institutions could focus on the preparation of nurses to respond to health care needs.

Nursing education leaders indicated the strongest agreement on the question (45) that said there would be more options available for R.N. students to obtain their B.S.N. These nurse educators also forecasted more formal agreements with A.D.N. programs to improve the process of articulation for all involved. These increases in formal agreements correspond to the recommendations of Warmbrod and Long (1986) that formal agreements between institutions be

initiated and periodically reviewed.

Nursing C.A.O.s preferred to direct transfer of credit from A.D.N. programs through the use of validated option slightly more than the direct transfer of credit. If a formal agreement existed, the baccalaureate school could evaluate the curriculum of the A.D.N. program and transfer credits that were similar. As stated early in the text, the Maryland plan provided for a statewide validation committee that evaluated each A.D.N. and diploma program for content (Rapson & Richardson, 1987). The process could be implemented in other states to facilitate this articulation process.

Private schools were more willing to accept direct transfer of nursing credit from N.L.N. accredited A.D.N. programs. R.N. only programs and those colleges already accepting direct transfer. Nurse educator responded positively to the continuation of this option.

There was agreement that more R.N.s initially prepared at the associate degree or diploma level will be seeking a B.S.N. degree. An increasing number of R.N.s are returning to colleges for their degree. Between 1982 and 1986 more than 204,000 nurses were seeking baccalaureate degrees (R.N. Baccalaureate Nursing Education, 1988). This trend is supported by the opinions of respondents to this questionnaire.

There was not strong support for development of a core curriculum in two-year programs designed for the purpose of articulating with four-year programs. Several comments made by respondents indicated that they perceived a difference in philosophy between the A.D.N. programs and B.S.N. programs and therefore a core curriculum would not be possible.

C.A.O.s advocated an increase in professional collaboration and in scheduling articulation conferences for faculty from community colleges and baccalaureate programs. These data are supported by the cooperation suggested by Warmbrod and Long (1986). Faculties need to build relationships among nurse educators of all types of programs based on respect and trust. Faculties need to focus on goals and not turf issues. The Maryland model serves as an example of collaboration, not competition. Goals, not hidden agendas, were the driving forces for change in articulation practices in Maryland (Feldman et al., 1987).

Opinions on specific future questions reflected a difference between generic and R.N. versus R.N. only students and those colleges or universities that accept direct transfer of nursing credit and those that do not. Since the R.N. only programs were started in 1960s and designed to educate a select group of students, it was expected that they would be more in favor of articulation (Searight, 1976). R.N. only programs were started in

response to the need of R.N. students to pursue a B.S.N. degree. This finding is congruent with this mission of the R.N. only programs. Overall they were more agreeable toward direct transfer options for A.D.N. nursing credit from N.L.N. accredited programs and the concept of articulation. In addition they were supportive of more effort to develop formal articulation agreements between A.D.N. and baccalaureate programs.

Programs that accept direct transfer of nursing credit were more agreeable to the concept of articulation. They were more in favor of accepting direct transfer nursing credits from N.L.N. accredited or validated A.D.N. programs than programs that did not accept direct transfer of Nursing credit. They did not disagree as strongly as those that did not accept direct transfer of nursing credit on the question about accepting nursing credit from N.L.N. accredited diploma programs. Since these programs already accept direct transfer, they should be more in favor of this policy than those programs who do not.

Overall, the programs that had a more optimistic vision of the future of nursing articulation were R.N. only programs and those programs that accepted direct transfer of nursing credits. Since these programs are the most positive toward nursing articulation they need to be monitored to evaluate any change in opinion and to discover any new

models for nursing articulation.

Comments About the Articulation Questionnaire

Although there were very few comments on the questionnaire, most represented very strong feelings either for or against articulation. The respondents were either very supportive of articulation efforts or they were against any movement to increase articulation options.

Conclusions

This study asked three research questions. The first one focused on what are the present articulation practices of baccalaureate programs in nursing. Some demographic data were requested to understand the nursing programs. This study has demonstrated that there is a diversity among nursing programs. Each one has a unique nature and varies in size and degrees offered. These baccalaureate programs were both public and private institutions. They offered B.S.N. degrees and some offered master's and doctorate degrees. The survey respondent's institution varied in size and location. The nursing faculty full time equivalent number ranged from two to 240.

This study demonstrated that there was diversity in acceptance of direct transfer of nursing credit and in the methods used to validate nursing knowledge providing many options for the R.N. student. This diversity also corresponded with N.L.N.'s criteria, that the program of

nursing should follow the philosophy, policies, and procedures of the parent institution (National League for Nursing, 1987).

This study validated that enrollment has decreased over the past five years. More generic and R.N. programs have experienced this decrease while the R.N. only programs have experienced an increase in enrollment. In the past year the enrollment picture has changed slightly with fewer programs experiencing a decrease. This trend could suggest a positive outlook toward nursing and the health care of the nation.

Nursing programs allowed for the direct transfer of support course credit in more programs and for more semester credit hours than they did for nursing credit. The fact that 45.9 percent of the baccalaureate programs accepted some direct credit from A.D.N. programs suggested a change in the trend not to accept direct transfer of credit. The Maryland model demonstrated that direct transfer of A.D.N. credit and maintenance of a quality baccalaureate program could occur together.

The second research question asked if there were articulation policies and what influenced their development and change. The data show that articulation policies do exist in the majority of baccalaureate programs. They were developed and changed in response to the needs of R.N.

students. The majority of programs were attempting to be responsive to the needs of the students they serve. Educational integrity and principles undergirded decisions, but policies evolved in response to various internal and external environments. One external influence was political pressure experienced by several programs. If legislators became involved, nurses would not remain the direct decision makers on articulation policies. The major factors that influenced the development or revision of articulation policies in baccalaureate schools of nursing throughout the United States centered on the unique needs of R.N. students.

In order to communicate these articulation policies, and other information, programs used many options to attract potential students. These options included brochures, letters, phone calls and personal contacts. Usually one person had direct responsibility for articulation and for enrollment management.

Even though someone had direct responsibility for articulation practices, there were few formal agreements between programs. As competition for students increases, formal agreements may also increase. Some programs stated that they were working on formal agreements, and the majority of schools did have ongoing planned communication. These formal communication processes were more frequent between A.D.N. and baccalaureate programs than between

diploma and baccalaureate programs.

The final research question asked the C.A.O.s to forecast the future of nursing articulation. The C.A.O.s projected that there will be more nurses working on their baccalaureate degree. As a result of this, there will be more options available for nurses seeking a baccalaureate degree. More formal agreements between A.D.N. and baccalaureate programs will be initiated and more direct transfer of nursing credit into baccalaureate programs from A.D.N. programs will occur. A core curriculum will be developed in two-year programs that will enhance articulation of graduates into the four-year programs. There will be efforts made to increase professional collaboration among faculties from both community colleges and universities.

In the opinion of program heads, formal articulation agreements between diploma programs and baccalaureate programs will not be initiated. Also the acceptance of direct transfer of nursing credit from diploma programs that have nursing content validated or that are N.L.N accredited will not occur. In fact, the future of diploma education is not promising from the viewpoint of the C.A.O.s of baccalaureate programs.

The emerging models of articulation appear to include direct transfer of validated credit from N.L.N. accredited

A.D.N. programs into B.S.N. programs. The models also include increased communication between A.D.N. and B.S.N. educators through agreements, as well as emphasis on developing core curricula and workshops on articulation. The C.A.O.s also predicted an increase in R.N.s working on their B.S.N. and more options available to them. The future does look hopeful for the R.N. student.

Nursing educators should assume the responsibility to create a supportive environment where there is high quality education that meets both the students' needs and the need of the society. Changes in curriculum and in articulation policies must be made so that nurses initially prepared for one level in nursing and motivated to seek additional preparation will be able to move through the educational system for new learning without undue repetition and hardship. Past education and experience can be evaluated and used as a foundation for new learning. The student, the educational system and the clients can all be winners.

Recommendations

The results of this study have identified areas which require further exploration. It would be advantageous to conduct a similar study with chief academic officers of A.D.N. and diploma programs of nursing to determine if their perceptions of articulation and the future of nursing articulation correlates with this study.

In addition a replication of this study should be initiated in two to five years to chart any change in articulation practices among B.S.N. institutions. After using the questionnaire in this study, the investigator would make the following modifications: 1. add a question indicating who was completing the questionnaire 2. reward questions 10-12 to determine estimated percentage of enrollment change and 3. expand the question on direct transfer of nursing credit to determine if the type of credit (either clinical course work or nonclinical course work), has an impact on transfer.

The use of an interview technique with C.A.O.s may expand the data base. The investigator would be able to obtain more information and also answer questions of the respondents. To obtain program-wide attitudes and opinions, faculty should be included in the next study.

Investigation of articulation practices and policies of other health related programs would add to the understanding of articulation. Comparison studies between articulation practices in nursing and other health related programs would examine both similarities and difference and assist all types of programs to progress in their efforts in articulation. Both program director's and faculty's input should be sought.

A study focusing on the communication methods used to

attract students would be valuable. Schools are using a variety of methods and it would be beneficial to determine how long they have been used as well as estimated degree of success. A questionnaire to the students asking what influenced them in their college choice would help focus time and energy on successful methods. Often tradition and "keeping up with the competition" drive schools to use certain methods of communication rather than being based on research.

A concern expressed by several respondents was the fear that the A.D.N. to B.S.N. will become the expected way of educating the professional nurse. A study needs to be developed to explore strategies that would entice students to enter four-year baccalaureate programs rather than the shortcut approach. In addition emphasis needs to be placed on promoting nursing as a profession and as a career.

Continued communication between and among nursing educators in all three types of programs is essential. Clear information about nursing curricula and program strengths and weaknesses should be shared so that programs can improve and students can continue their education without undue repetition of course work. Workshops on articulation concepts should be developed and presented at both state and national levels. This subject needs to be discussed so that agreement on policies can be promulgated.

Workshops can help stimulate the development of models that can increase options for R.N. students.

Increased efforts are needed to foster communication between nursing education and nursing service administrators. Graduates of programs should be held accountable by the hospitals and other work place for the knowledge and skills that they acquired in the educational arena. Programs have the responsibility to educate graduates to be productive, valuable employees who can function in the work place. Specific job descriptions and expectations for both the A.D.N. graduate nurse and the B.S.N. graduate nurse would help utilize nurses based on their education. Presently there is usually a single job description for a R.N., no difference in job based on educational qualifications.

The concept of articulation generally and nursing articulation specifically still needs development. Specific models such as the Maryland model should be developed, implemented and evaluated in other states. New studies need to be initiated to investigate what can be done to prepare nurses who can respond to the needs of clients in a complex technological environment. This study and Ott (1988) identify the need for nurses to be prepared to absorb complex information and generate decisions that will benefit each individual client and family.

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APPENDIX A.
NURSING ARTICULATION
PRESENT AND FUTURE
QUESTIONNAIRE

Nursing Articulation
Present and Future

Demographic Information

Please provide the information requested for each item by checking the appropriate responses:

1. Your institution is:

(Please check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Public
<input type="checkbox"/> Private | <input type="checkbox"/> University
<input type="checkbox"/> Independent
College of Nursing
<input type="checkbox"/> Part of Allied
Health Science
College
<input type="checkbox"/> Four-year liberal arts
college
<input type="checkbox"/> Four-year non-liberal
arts college
<input type="checkbox"/> Other, please specify
----- |
|---|--|

2. State in which college or university is located:

3. Number of full-time equivalent nursing faculty: _____

4. The nursing program is:

- Generic only
 Generic and RN students
 R.N. only program
 External degree program
 Other, please specify _____

5. Degrees offered in nursing by your college/university are: (Please check all that apply)

- Associate Degree in Nursing
 Baccalaureate Degree in Nursing
 Masters Degree in Nursing
 Doctorate Degree in Nursing
 Other, please specify _____

6. You were:

- Initially prepared as an LPN
 Initially prepared as a diploma nurse
 Initially prepared as a BSN
 Initially prepared as a MSN
 Other, please specify _____

7. What is your highest educational degree?

- Masters in Nursing
- Masters in other field
- Doctorate in Nursing
- Doctorate in other field, please specify_____
- Other, please specify_____

8. How many years have you been in your current position?

9. Please indicate the number of years you have been chief executive officer of any of the following nursing programs:

- ADN program
- Diploma program
- LPN program
- Baccalaureate or higher degree program

Enrollment

10. How has your enrollment of nursing students (baccalaureate) changed in the past one year? Past five years?

- | | |
|-------------------------------------|-------------------------------------|
| -----Increased | -----Increased |
| -----Remained the same | -----Remained the same |
| -----Decreased | -----Decreased |
| -----No program | -----No program |
| -----Estimated percentage of change | -----Estimated percentage of change |

11. How has your enrollment of generic students changed in the past one year? Past five years?

- | | |
|-------------------------------------|-------------------------------------|
| -----Increased | -----Increased |
| -----Remained the same | -----Remained the same |
| -----Decreased | -----Decreased |
| -----No program | -----No program |
| -----Estimated percentage of change | -----Estimated percentage of change |

12. How has your enrollment of registered nurse students changed in the past one year? Past five years?

- | | |
|-------------------------------------|-------------------------------------|
| -----Increased | -----Increased |
| -----Remained the same | -----Remained the same |
| -----Decreased | -----Decreased |
| -----No program | -----No program |
| -----Estimated percentage of change | -----Estimated percentage of change |

13. Has either program been eliminated?

----- Yes, Generic
 ----- Yes, RN
 ----- No

Transfers

14. Does the nursing program accept transfer credit in support classes (any non-nursing courses required for graduation)?

----- Yes
 ----- No

15. If yes, please indicate the number of semester credit hours of support courses (not nursing) transferable from a community or junior college:

----- 0-5
 ----- 6-10
 ----- 11-15
 ----- 16-20
 ----- 21-25
 ----- 26-30
 ----- 31-35
 ----- 36-40
 ----- No limit
 ----- Other, please specify _____

16. Does the nursing program accept validated credit in support classes? (Validate refers to the process of objectively measuring the content of courses before awarding academic credit).

----- Yes
 ----- No

17. If yes, please indicate the method used to validate support course credit.

----- ACT PEP (e.g. Physiology, Microbiology)
 ----- CLEP
 ----- Portfolio
 ----- Teacher made challenge examinations
 ----- Other, please specify _____

18. If yes, please indicate the maximum number of semester credit hours that can be validated.

----- No limit

19. Does your baccalaureate nursing program accept direct transfer credit from nursing courses in community or junior colleges?
- Yes
----- No
20. If yes, are there any restrictions on the community or junior college? (Please check all that apply)
- NLN accredited program
----- Only in the same state
----- Signed, formal agreement with the ADN program
----- Part of same college or university
 (e.g. ladder program)
----- Validated content of courses
----- Other, please specify -----
21. If yes, please indicate the number of semester credit hours accepted in nursing:
- 0-5
----- 6-10
----- 11-15
----- 16-20
----- 21-25
----- 26-30
----- 30-35
----- More than 35, please specify -----
22. Does your baccalaureate nursing program award credit or advanced placement for previous nursing education and experience for registered nurse students?
- Yes
----- No
23. If yes, what is the method used for giving credit?
(Please check all that apply)
- Direct transfer of credit
----- Assessment of nursing clinical skills
----- ACT/PEP tests
----- NLN mobility tests
----- Teacher-made exams
----- Nursing course final exams (Same as given to generic student)
----- Portfolio evaluations
----- Lower division credit only
----- Other, please specify -----

24. Is there any difference in your transfer policy if the student was initially prepared as an ADN than for diploma program?

_____ Yes

_____ No

If yes, please specify _____

Credits

25. How many total nursing credits are required to complete your baccalaureate program? Please respond in terms of semester credit hours (use .67 to convert quarter hours to semester hours).

_____ semester hours

26. How many nursing credits do you accept/validate from the ADN/RN programs?

_____ semester hours

27. How many nursing credits do you accept/validate from the diploma program?

_____ semester hours

28. How many total support/prerequisites/elective (any non-nursing courses) credit do you require for graduation?

_____ semester hours

29. How many support/prerequisites/elective credit do you accept from a community or junior college?

_____ semester hours

Policy

30. Do you have a written policy on articulation for registered nurse students? (articulation is defined as the process which facilitates the transition of students from lower-division programs to upper-division programs without loss of credit or duplication of learning).

_____ Yes Go to question number 30

_____ No Go to question 34 (skip #30,31,32,33)

31. Has this policy changed in the last 5 years?

----- Yes
----- No

32. In the last 3 years?

----- Yes
----- No

33. What factors influenced the development or revisions of the articulation policy? (Please check all that apply)

A. ----- Economic reasons
B. ----- Attractiveness of program
C. ----- Legislative mandate
D. ----- Political pressure
E. ----- Pressure from college administration
F. ----- Flexibility for RN students
G. ----- Other, please specify _____

34. Please indicate in rank order the three most important factors from question #32. Please use corresponding letter to indicate choice.

1. ----- 2. ----- 3. -----

35. Has enrollment had any impact on your articulation policy?

----- Yes
----- No

If yes, please specify _____

Communication

36. How do you communicate information on articulation to prospective Registered Nurses? (Please check all that apply)

----- Letter
----- Brochure
----- Phone calls
----- Class presentation
----- Advertisement
----- Visiting students at ADN or diploma schools
----- Hospital or agency recruitment
----- Counselor
----- Other, please specify _____

SD D N A SA
1 2 3 4 5

43. There will be more direct transfer of nursing credit into baccalaureate programs from ADN programs that have their nursing content validated.

SD D N A SA
1 2 3 4 5

44. There will be more direct transfer of nursing credits into baccalaureate programs from diploma programs that have their nursing content validated.

SD D N A SA
1 2 3 4 5

45. There will be more baccalaureate programs of nursing offering options so that students can obtain BSN's.

SD D N A SA
1 2 3 4 5

46. There will be more effort to develop formal articulation agreements between associate degree programs and baccalaureate degree programs.

SD D N A SA
1 2 3 4 5

47. There will be more effort to develop formal articulation agreements between diploma programs and baccalaureate degree programs.

SD D N A SA
1 2 3 4 5

48. There will be encouragement to develop a core curriculum in two-year programs in order to enhance the articulation process with four-year programs.

SD D N A SA
1 2 3 4 5

49. There will be increased professional collaboration and conferences for faculty from community colleges and universities on articulation.

50. Other comments

APPENDIX B.
FIRST COVER LETTER

IOWA STATE UNIVERSITY

January 18, 1989

College of Education
Professional Studies
N243 Lagomarcino Hall
Ames, Iowa 50011

Telephone 515-294-4143

^([Status] ^([FLName])
^([Title])
^([University])
^([Address])
^([City,State,Zip])

Dear ^([Status] ^([FLName]),

An increasing number of registered nurses initially prepared at the associate degree or the diploma level are returning to school for advanced degrees to prepare themselves to meet the challenges of client care. I am conducting a research project that I believe has significance for nursing education throughout the United States. This investigation which includes all National League for Nursing accredited baccalaureate nursing programs is concerned with examining the process and requirements for registered nurses initially prepared at the associate degree or diploma level to progress to the baccalaureate level. Also I am interested in your opinions regarding the future of articulation.

This study is a major part of my doctoral program at Iowa State University and is being conducted under the direction of the Department of Professional Studies and Research Institute for Studies in Education, Ames, Iowa. In order to ensure that the sample is representative of baccalaureate nursing educators, it is important that each questionnaire be completed and returned. I am requesting your voluntary participation in this study. Your responses will remain confidential; the questionnaire is coded for mailing purposes only. Individual programs will not be identified and the data will be analyzed and reported only in terms of group phenomena.

Thank you in advance for your cooperation in completing the questionnaire by February 10, 1989. If you have any questions or concerns please contact me at 1-515-263-2850 or Dr. Dan Robinson at Iowa State University, 1-515-294-7003. A report of the findings of this research will be available per request. Please return the booklet in the enclosed prepaid envelope.

As Head of Grand View College's Division of Nursing, I realize that you receive many requests to complete questionnaires, however, I believe that educational

articulation is important to the future of professional nursing and I appreciate your participation.

Sincerely,

Ellen M. Strachota R.N., M.A.
Head, Division of Nursing
Grand View College
Doctoral Candidate
Iowa State University

Daniel C. Robinson Ph.D.
Assistant Professor
Professional Studies
Iowa State University

APPENDIX C.

POSTCARD

Several weeks ago you were mailed a questionnaire seeking your opinion on Nursing Articulation, present and future. All N.L.N. accredited baccalaureate programs were mailed the questionnaire.

If you have already completed and returned it to me please accept my sincere thanks. If not, please do so today. Your opinion is extremely important.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me right now at 515-263-2850 and I will mail you one today. Thank you for your help in this research project.

Sincerely,

Ellen M. Strachota, R.N., M.A.
Head, Division of Nursing

APPENDIX D.
SECOND COVER LETTER

IOWA STATE
UNIVERSITY

College of Education
Professional Studies
N243 Lagomarcino Hall
Ames, Iowa 50011

Telephone 515-294-4143

^[Status] ^[FMLName]
^[Title]
^[Institution]
^[Address]
^[City,State,Zip]

Dear ^[Status] ^[FMLName],

Recently I wrote to you requesting your assistance in a study that I believe has significant relevance to nursing education. The title is Nursing Articulation, Present and Future. The information will be used to examine the process and requirements for registered nurses initially prepared at the associate degree or diploma level to progress to the baccalaureate level. The tool also assesses opinions regarding the future of articulation. Since I have not received your questionnaire, I am sending you another one to complete. Your input is vital and necessary to the outcome of this research.

All responses will remain anonymous; the questionnaire is coded for mailing purposes only. No program will be identified in the data; the information will be analyzed and reported in terms of group summarizations.

If you have already completed the questionnaire, thank you. If you have not, please take a few minutes and share with me your knowledge and insight into educational articulation. Please complete and return the questionnaire by March 7, 1989, by mailing it in the enclosed prepaid envelope. A report of the findings of this research will be available per request. If you have any questions or concerns please notify me at 1-515-263-2850.

Thank you for your time and cooperation.

Sincerely,

Ellen M. Strachota R.N., M.A.
Head, Division of Nursing
Grand View College
Doctoral Candidate
Iowa State University

Daniel C. Robinson Ph.D
Assistant Professor
Professional Studies
Iowa State University

APPENDIX E.
STATE OF RESPONDENTS

State of Respondents

<u>State</u>	<u>Frequency</u>	<u>Percentage</u>
Alabama	10	2.7
Alaska	1	0.3
Arizona	1	0.3
Arkansas	7	1.9
California	19	5.1
Colorado	4	1.1
Connecticut	7	1.9
Delaware	2	0.5
District of Columbia	4	1.1
Florida	8	2.2
Georgia	8	2.8
Hawaii	1	0.3
Idaho	2	0.5
Illinois	21	5.7
Indiana	10	2.7
Kansas	7	1.9
Kentucky	9	2.4
Louisiana	7	1.9
Maine	1	0.3
Maryland	7	1.9
Massachusetts	8	2.2
Michigan	13	3.5
Minnesota	13	3.5
Mississippi	4	1.1
Missouri	9	2.4
Montana	1	0.3

State of Respondents (cont)

<u>State</u>	<u>Frequency</u>	<u>Percentage</u>
Nebraska	6	1.6
Nevada	2	0.5
New Hampshire	2	0.5
New Jersey	12	3.2
New Mexico	2	0.5
New York	25	6.7
North Carolina	10	2.7
North Dakota	3	0.8
Ohio	18	4.9
Oklahoma	10	2.7
Oregon	2	0.5
Pennsylvania	26	7.0
Puerto Rico	3	0.8
Rhode Island	2	0.5
South Carolina	3	0.8
South Dakota	2	0.5
Tennessee	6	1.6
Texas	20	5.4
Utah	3	0.8
Vermont	3	0.8
Virgin Islands	1	0.3
Virginia	7	1.9
Washington	5	1.3
West Virginia	5	1.3
Wisconsin	9	2.4

APPENDIX F.
ENROLLMENT CHANGES

Enrollment changes

Total program	<u>Percentage</u>	<u>Frequency</u>
1 year increased	1%	1
	3%	2
	5%	4
	6%	1
	8%	1
	10%	9
	11%	1
	12%	1
	15%	4
	20%	2
	21%	1
	23%	1
	24%	1
	25%	1
	30%	2
 Total program		
1 year decreased	4%	1
	5%	4
	8%	2
	10%	5
	11%	1
	12%	1
	13%	1
	15%	4
	20%	2
	30%	1
	88%	1

Enrollment changes

Total program	Percentage	Frequency
5 year increased	3%	1
	5%	1
	10%	7
	12%	1
	20%	1
	25%	1
	30%	2
	40%	1
	50%	1
	98%	1
Total program		
5 year decreased	1%	1
	2%	1
	5%	4
	10%	4
	15%	3
	19%	1
	20%	6
	22%	1
	25%	2
	30%	3
	33%	2
	34%	1
	40%	3
	44%	1
	50%	7
	60%	1
	88%	1
	98%	1

Enrollment changes

Generic only	<u>Percentage</u>	<u>Frequency</u>
1 year increased	1%	1
	2%	1
	3%	1
	4%	1
	8%	1
	10%	6
	12%	1
	15%	4
	20%	4
	23%	1
	24%	1
	25%	1
	30%	1
Generic only		
1 year decreased	2%	1
	4%	1
	5%	3
	6%	1
	8%	1
	10%	4
	11%	1
	15%	2
	20%	3
	21%	1
	30%	3

Enrollment changes

RN only	<u>Percentage</u>	<u>Frequency</u>
1 year increased	1%	1
	4%	1
	5%	4
	6%	1
	10%	8
	13%	1
	15%	4
	20%	2
	31%	1
	36%	1
	40%	1
	45%	1
	50%	3
	66%	1
	70%	2
	75%	1
	98%	2
RN only		
1 year decreased	1%	2
	10%	2
	15%	3
	20%	2
	25%	1
	35%	1
	50%	1

Enrollment changes

<u>RN only</u>	<u>Percentage</u>	<u>Frequency</u>
5 year increased	1%	1
	2%	1
	5%	2
	10%	10
	12%	2
	13%	1
	19%	1
	20%	2
	25%	1
	26%	1
	30%	2
	40%	1
	50%	3
	72%	1
	75%	1
	90%	1
	98%	8
 RN only		
5 year decreased	2%	1
	10%	1
	20%	1
	34%	1
	47%	1
	50%	2
	98%	1

Enrollment changes

Generic only	Percentage	Frequency
5 year increased	1%	1
	2%	1
	5%	2
	10%	10
	12%	2
	13%	1
	19%	1
	20%	2
	25%	1
	26%	1
	30%	2
	40%	1
	50%	3
	72%	1
	75%	1
	90%	1
	98%	8
Generic only		
5 year decreased	2%	1
	10%	1
	20%	1
	34%	1
	47%	1
	50%	2
	98%	1