INTERDISCIPLINARITY AS A CHANGE STRATEGY:
EXPLORING THE EXPERIENCES
OF FACULTY AND ADMINISTRATORS

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ABSTRACT

A changing environment forces institutions of higher learning to adapt to increasing demands for accountability, the production and application of new knowledge, and dwindling financial resources. Interdisciplinary programming provides one way to address these issues as well as meet evolving student and societal needs. This study explores the experiences of nursing and education faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral program. A qualitative case study using interviews and document analysis was employed at a large, four-year, residential research institution. The core and supportive strategies critical to transformational change as identified by Eckel and Kezar (2003) served as the conceptual framework for this dissertation which addressed the following research questions:

1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?
2. What tactics facilitate development of an interdisciplinary academic program?
3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?
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CHAPTER 1:
INTRODUCTION

Problem and Context

Higher education exists in a changing environment. Various groups including students, parents, alumni, government agencies, prospective students, the local community, and industry leaders exert pressure on higher education institutions in an effort to initiate changes that meet their unique needs (Altbach, Gumport, & Berdahl, 2011; Clark, 2008; Fugazzotto, 2007; Keenan & Marchel, 2007). Factors such as the production of knowledge, an effort to solve complex societal problems, limited resources, the need to apply knowledge, and the demand for accountability have forced institutions of higher learning to re-evaluate current operating methods and implement changes in order to make the best use of declining financial resources and remain competitive in a growing market. Interdisciplinary studies offer a way for institutions to adapt to this changing environment.

Newell (2001) cites many advantages of interdisciplinary study which include producing new knowledge generated from a synthesis of existing disciplinary knowledge that leads scholars to ask new research questions; tackling complex social, economic, and technological problems; and providing faculty with unique professional development opportunities. Interdisciplinary studies simplify efforts to provide students with an education that covers multiple disciplines. In addition, students learn how to deal with complex behaviors they will face on the job. Despite the advantages, circumstances internal to the institution sometimes create roadblocks to interdisciplinary work.

Disciplinary silos, organizational structure, academic training and socialization, institutional obstacles, professional impediments, and a host of other barriers hinder efforts to
collaborate across disciplines (Brewer, 1999; Giacomini, 2004; Golde & Gallagher, 1999; Gumport & Snydman, 2002; Harris & Holley, 2008; Holley, 2009; Sá, 2008). The physical structure of a university tends to isolate academic fields into distinct units with each discipline assigned to a unique space on campus. The disciplinary silo extends beyond the university’s structure. Faculty conduct research designed to make strides and advance knowledge within their individual fields of study. Academic training and socialization also deter interdisciplinarity. Graduate students are trained and socialized to conduct specialized disciplinary research. University structure tends to tie doctoral students to a department, discipline, and advisor discouraging interdisciplinary research (Golde & Gallagher, 1999). Despite these hurdles, interdisciplinary efforts persist due to external demands for change. For example, the complex field of health care demands highly skilled and well trained nurses and nurse educators to meet the health care needs of a diverse population. Partnering across disciplines provides an opportunity to enhance the training of nurse educators and their students.

Vlasses and Smeltzer (2007) identify a number of factors affecting the delivery of health care. These factors include advances in technology, an aging population, a change in consumer expectations, and innovative care delivery models. Increased costs, a shortage of allied health professionals, and the need for personalized care also affect health care delivery. Collaboration between health care professionals provides a way to address the complexities inherent in health care. Interdisciplinary collaboration allows health care professionals from multiple disciplines with shared objectives, decision-making responsibilities, and power to work together to offer quality patient care (Bender, Connelly, & Brown, 2013). Nursing programs that incorporate collaborative efforts in higher education acclimatize nursing professionals to the notion of working across disciplines in an effort to reach common goals.
A 2011 report on the core competencies for interprofessional collaborative practice espouses the importance of training health professions students to work together through interactive learning to build “a safer and better patient-centered and community/population oriented U.S. health care system” (Interprofessional Education Collaborative Expert Panel, 2011, p.3). The combination of complex patient illnesses and a complex health care delivery system necessitates coordination, cooperation, and collaboration between the health professions. Through interprofessional collaborative practice health professions, students gain an understanding of the expertise and capabilities of each profession which is necessary for the effective coordination and collaboration (Interprofessional Education Collaborative Expert Panel, 2011). The Institute of Medicine (IOM) recommends increasing the emphasis on interdisciplinary education in nursing education programs (American Association of Colleges of Nursing (AACN), 2010). Including interdisciplinarity in nursing programs gives nurses the opportunity to learn from and collaborate with individuals across disciplines. In addition to working across disciplines, the complexity of patient illnesses and the health care delivery system requires nurses trained at advanced levels to deliver quality care.

The IOM recommends increasing the number of nurses with baccalaureate degrees to 80 percent by the year 2020 (IOM, 2010). Nurses who hold baccalaureate degrees have better patient outcomes and are more proficient when making diagnoses (AACN, 2010). The nursing profession may struggle to reach this goal due to the current nursing faculty shortage. Nursing schools turn away large groups of qualified applicants as a result of this faculty shortage. In 2008, pre-licensure nursing programs reported denying admission to approximately 39 percent of all qualified applicants. A third of the pre-licensure programs indicate faculty shortages as the main reason for denying admission to qualified applicants. Nursing schools cite low salaries and
unqualified candidates as barriers to hiring new faculty members (National League for Nursing (NLN), 2010). An interdisciplinary doctoral program designed to train nurse educators helps to resolve the nursing faculty shortage as well as provide students with the chance to participate in a team-based learning environment.

**Purpose**

The purpose of this dissertation was to understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program as well as the experiences of nursing and education faculty who teach courses in an interdisciplinary doctoral program. Faculty and administrators who typically focus on teaching and research specific to their own disciplines may struggle to work across disciplines. This qualitative study also focused on identifying tactics that facilitate change as well as challenges faced by faculty and administrators attempting to implement change at the college and departmental level.

**Significance of Study**

This study adds to the existing literature on interdisciplinary studies, program development, and organizational change. Specifically, the study adds to research on interdisciplinary programs and organizational change at the college and departmental levels. Although limited to faculty and administrators developing an interdisciplinary doctoral program at a large, four-year, residential research institution, the results from this qualitative study attempt to reveal institutional challenges faced and possible solutions. The study gives college and department level administrators seeking to implement a change initiative information on effective and ineffective tactics executed during the process.
Research Questions

The purpose of this dissertation was to understand the experiences of nursing and education faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral program. This study answered the following questions.

1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?
2. What tactics facilitate development of an interdisciplinary academic program?
3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?

External Demands for Change

External factors affecting higher education require changes to current methods of operation. To continue to prepare productive citizens who are able to think critically and compete in a global market, institutions of higher education must consider the effects of external demands and plan for change. The value placed on knowledge production and the legitimation of existing knowledge influences research and academic programming in institutions of higher learning. We live in a knowledge-based economy where the production and consumption of knowledge drive economic and technological developments, political action, and professional advancement (Gumport & Snydman, 2002). This emphasis on knowledge calls for new partnerships and innovative ways of effectively working together. Universities are expected to set priorities that allow for the development of new knowledge. External political and economic demands affect the categories and content of knowledge produced and disseminated by academic institutions. New knowledge results from emerging fields and change within existing fields (Gumport & Snydman, 2002). New fields of knowledge are prevalent in the areas of science and
professional programs where attempts to resolve complex problems bring together different disciplinary components. The educational focus shifts from theoretical concepts inherent in just one discipline to the integration of information across disciplines in order to respond to real problems (Newell & Klein, 1996).

Efforts to solve complex societal problems and issues such as environmental pollution, global warming, and health care reform influence the type of research conducted in colleges and universities. These areas of concern tend to span across the disciplines. Finding solutions requires the knowledge and creativity of professionals from multiple disciplines working together (Newell & Klein, 1996). Government, business, and industry place an increased emphasis on the exchange of skills and knowledge across disciplines and provide funding to promote interdisciplinary work (McFadden, Chen, Munroe, Naftzger, & Selinger, 2011). The areas of biomedical research, life science, and technology rely on interdisciplinary research centers to promote collaboration in an effort to share resources and equipment and to solve problems that cross disciplines (Sá, 2008). Exploration across disciplines offers new ways of viewing old problems. Findings produced by researchers working together across disciplines lead to an increase in the breadth and depth of knowledge crucial to solving problems affecting the nation (Brewer, 1999).

Universities and colleges face pressure to teach students practical skills immediately applicable to the work environment. Employers seek college graduates who possess the analytical and practical competence necessary to generate innovative ideas and improve organizational effectiveness (Kallison & Cohen, 2010). In addition to a strong grasp of the subject matter competencies within the chosen major, students need skills like problem-solving, collecting and synthesizing information, and effective communication. “These skills prepare
graduates for success in the workplace and provide them with competencies to participate meaningfully in the local community and beyond,” suggested Kallison and Cohen (2010, p. 42). Departmental curricula and academic program changes are more likely to occur in the applied and professional fields. This may be due to the need to adapt to information technology advancements and changes in career opportunities (Gumport & Snydman, 2002) and provide students with knowledge they can immediately apply in the workplace. As indicated by Klein (2005), the ability to apply knowledge takes precedence over simply acquiring knowledge and mastering facts. The application of knowledge ignites new questions and encourages problem solving and higher-order critical thinking.

Multiple groups vying for limited resources require colleges and universities to adapt in order to gain a competitive edge. Higher education must battle with primary and secondary education, health care, and the criminal justice system for state and federal dollars (Kallison & Cohen, 2010). In addition, disciplines compete amongst each other for limited institutional funding. The growth in knowledge has led to an increase in the number of fields and specialties within each field exacerbating the existing problem of fragmentation (Klein, 2005) and increasing the tension between the many groups competing for limited institutional funds. The number of groups competing for limited grant funding also affects institutions of higher learning causing a shift in the way grant proposals are generated. Cuts to federal government spending in an effort to balance the country’s budget negatively impact colleges and universities that receive federal funding for grants and other programs. In an article published in the New York Times (Shear, 2013), university officials at Stony Brook University and The University of California, Berkley indicated that they will suffer significant losses in federal funding for research grants and other programs and will reduce the number of new hires in the area of research.
State and local financial support for higher education has declined over the years. The State Higher Education Finance FY 2013 report (State Higher Education Executive Officers Association (SHEEO), 2014) describes the negative impact of the 2008 recession on state and local appropriations for higher education. Although increasing, 2013 per-student state and local funding remained lower than the amounts appropriated in 2009. Colleges and universities often respond to declining state and local support by increasing tuition. In 2013 tuition revenue accounted for 47.4 percent of the total educational revenue, a significant increase from 23.8 in 1988. (SHEEO, 2014).

Due to rising tuition costs, the general public and legislators have placed greater emphasis on accountability. Institutions of higher learning face mounting pressure to prove they offer students a quality education. Limited financial resources to allocate across to various governmental agencies and the amount of state and federal funding provided to higher education trigger scrutiny by the public and the government. Outcome assessments designed to measure the quality of higher education became popular in the 1980’s (Hearn & Griswold, 1994). Assessment continues to serve as an external factor that forces institutions of higher learning to modify current methods of operation.

Leaders in the nursing profession stress the importance of transforming education to prepare nurses to address the needs of patients in the 21st century. Today’s patients are more likely to experience chronic conditions like diabetes and arthritis rather than the acute illnesses and injuries that represented the predominant health care challenges of the early 20th century (IOM, 2010). Nurses must be able to master technical tools and information management systems as well as collaborate with others in an effort to coordinate care across a team of health professionals. Nurses need to be educated in new ways that better prepare them to meet these
increasing demands and tend to the health care needs of a diverse population (IOM, 2010). The Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing recommends doubling the number of nurses with a doctorate by 2020 in order to add to the number of nursing faculty (IOM, 2010; NLN, 2013). The NLN considers the preparation of nurse educators at the doctoral level key to advancing the nation’s health. Nurse educators are responsible for preparing the next corps of nurses who will be called upon to deliver safe, fiscally sound, and high quality care in an increasingly complex health care system (NLN, 2013). Doctorally prepared nurse educators are needed to teach students how to develop and incorporate evidence-based approaches to coordinated care and expand their views of patient-centered care, population-based care, and team-centered coordination help. This will be lead to better patient care, better patient health, and lower health care costs (NLN, 2013). Interdisciplinarity offers a way to manage the external demands placed on institutions of higher learning and the nursing profession.

**Advantages of Interdisciplinarity**

Newell and Klein (1996) contend that the interdisciplinary nature of knowledge created by the sharing of methods and concepts between disciplines has led to the need for interdisciplinarity in higher education. The concept of interdisciplinarity involves the integration of disciplines as well as a focus on shared problems, topics, or questions. Interdisciplinarity offers many advantages. According to Newell (2001), “…interdisciplinary study draws insights from relevant disciplines and integrates those insights into a more comprehensive understanding” (p. 2). Interdisciplinary work has the potential to introduce new knowledge that is valued and recognized (Gumport & Snydman, 2002). In his article on the challenges of interdisciplinarity, Brewer (1999) discusses the advantages of interdisciplinary work. Interdisciplinarity allows for
the development of new knowledge unlikely to be generated by a single discipline. Individuals across disciplines work together to find commonalities that lead to new definitions for existing concepts and allow for new applications of existing concepts. Combining the knowledge and expertise of multiple disciplines provides a more effective foundation for action.

Researchers from a single discipline struggle to solve complex societal problems. The flexibility, adaptability, and innovation of interdisciplinary work make interdisciplinarity ideal for solving complex problems (Harris & Holley, 2008). Interdisciplinarity allows researchers to organize their efforts around the problem instead of a particular discipline (Sá, 2008). Brewer (1999) states that interdisciplinarity adds value by combining knowledge from many different specialties to provide a new way of looking at a problem. Researchers from different disciplines working together gain an increased understanding of problems which fosters the possibility of generating innovative and practical solutions.

Proposal guidelines established by grant funding agencies promote interdisciplinary work. Those conducting interdisciplinary research can at times receive priority over single discipline proposals (Holley, 2009). For example, the National Science Foundation (2011) seeks to advance interdisciplinary research through a grant program known as Fostering Interdisciplinary Research on Education (FIRE). The program aims to facilitate the innovative development of theoretical and analytical approaches needed to understand complex issues of national importance in the areas of science, technology, engineering, and math (STEM). Scholars partner with a mentor from another discipline on a research project pertaining to STEM learning or education. Through a professional development component outlined in the grant proposal, researchers gain the opportunity to learn about another field of study in order to conduct rigorous research that addresses complex problems important to STEM education. The program also
increases the number of scholars in a variety of specialty areas contributing to STEM research (National Science Foundation, 2011).

Interdisciplinary study gives institutions an option when forced to address financial pressures caused by state and federal budget cuts during times of economic insecurity (Newell, 2001). Interdisciplinary work gives faculty the opportunity to combine resources and work across disciplines. Faculty resources can be reallocated by combining departments with low enrollments into one interdisciplinary department with faculty teaching interdisciplinary general education courses and theme-based and problem-based courses to the general undergraduate student body (Newell & Klein, 1996).

Interdisciplinary work provides opportunities to train a new generation of researchers and practitioners (Brewer, 1999). Employers expect graduates to know how to network with others and work with different types of information in order to be productive team members. Interdisciplinary study gives students that experience. Students become knowledgeable about their discipline of study while at the same time integrating that information into interests outside of the major. Students learn how to integrate and synthesize information and develop a critical perspective in order to solve problems (Newell & Klein, 1996). Students engaged in integrative interdisciplinary thinking learn how to deal with conflicting perspectives and adapt knowledge in unexpected and changing contexts (Klein, 2005). When students engage in integrative interdisciplinary learning they develop the ability to ask meaningful questions about complex issues, to find information in multiple sources, to compare and contrast in order to expose patterns and connections, and to integrate information in order to create a more holistic understanding (Klein, 2005).
In addition to the benefits interdisciplinarity offers in academia, interdisciplinarity offers benefits to those working in the changing and complex field of health care. In their article on creating an interdisciplinary graduate certificate program, McFadden, Chen, Munroe, Naftzger, and Selinger (2011) discuss employing interdisciplinary studies as a way to improve professional training and patient care. Interdisciplinary study helps those engaged in the process address issues too complex for one discipline to handle. Managing complex issues such as health care regulations and finance requires interdisciplinary collaboration and an understanding of the viewpoints of other professionals including those in medicine, business, law, and engineering. Interdisciplinary study exposes individuals to the culture, language and practices of different disciplines (McFadden et al., 2011).

In the field of nursing research, outcomes often lead to the integration of new procedures and methods that improve patient care. Collaborating with individuals across disciplines to solve problems creates new insights that yield practical results and tie nursing education to practice (Robert & Pape, 2011). Advancing knowledge requires a team approach. The National League for Nursing (2012) recommends establishing links between various groups including faculty, graduate students, practice partners, and other stakeholders to advance the science of nursing education. A number of different academic disciplines have already developed specialties in health topics. Problems such as chronic disease and economic sustainability lend themselves to an interdisciplinary approach that ideally will produce more applicable and accessible knowledge for academics, the public, and policy makers (Giacomini, 2004). Despite the advantages, factors within institutions of higher education often deter faculty and administrators from incorporating interdisciplinarity into academic programs and research.
Internal Components Restricting Change

Factors within academia restrict efforts made by faculty to work across disciplines. In her article on interdisciplinary strategies as transformative change, Holley (2009) discusses the way boundaries within higher education compartmentalize academic behavior. Productivity and development occur within individual departments and degree programs designed to separate the disciplines. The physical design of universities separates faculty by discipline making it difficult to work together. In a study examining how universities plan and nurture interdisciplinary space on campus, Harris and Holley (2008) found that many of the universities referenced in the study recognized the need to breakdown these institutional silos in order to meet the demand for interdisciplinary efforts dictated by federal research funding requirements. University administrators recognize the need for specialized, flexible spaces to accommodate researchers charged with producing new knowledge. Harris and Holley (2008) found physical proximity as a key element necessary for creating an environment open to communication and the exchange of ideas, two primary benefits of creating a single space to house interdisciplinary initiatives. A shared space for researchers from different disciplines offers more opportunities for communication and eases project planning efforts.

Organizational structure impacts efforts to implement change. Faculty and administrators attempting to incorporate interdisciplinary study into an organization that fails to see the value face an uphill battle. Universities are divided by discipline with each subject functioning independently. The focus tends to be on individual achievements (Brewer, 1999). Faculty declare allegiance to their departments and the discipline-based professional organizations that recognize their accomplishments (Sá, 2008). An organizational culture that preserves the traditional structures of the university deters faculty from engaging in interdisciplinary efforts unless central
administration takes action and rewards those who collaborate across disciplines (Sá, 2008). Harris and Holley (2008) found that leaders play a key role in setting the tone for interdisciplinary work by making interdisciplinarity a priority and harnessing resources from donors and external supporters. However, administrators struggle to fit interdisciplinary work into existing institutional structures. Faculty members working together in planning and teaching teams challenge traditional procedures for staffing, budgeting, faculty load, and faculty rewards (Newell & Klein, 1996). Departments, programs, budgets, faculty lines, course requirements and course sequencings serve to divide the responsibilities, rules, roles, and resources within a university. Some fear that interdisciplinary work will drain resources from disciplinary departments and put an end to new knowledge development (Giacomini, 2004). In his article on interdisciplinary strategies in U.S. research universities, Sá (2008) discusses the challenge issued by the National Academies of Sciences and the Association of American Universities to restructure the traditional disciplinary specialization characteristic of most institutions of higher learning. Faculty and students tend to spend the majority of their academic careers within one central location on campus specific to their discipline of choice (Harris & Holley, 2008). Dividing disciplines into specialties creates departmental silos and leads to the fragmentation of knowledge because researchers fail to communicate across disciplines (Sá, 2008). As individual disciplines continue to gain an increasing amount of power, decision making becomes decentralized, and what works for each discipline and department develops into the norm for the institution as a whole (Newell & Klein, 1996). In institutions of higher learning the current configuration and work mode stifle the scientific progress necessary to improve the economy and provide social benefits to society (Sá, 2008). Departments within each academic field typically control programming. This decentralization of control makes attempts to incorporate
interdisciplinarity into research and the delivery of academic programs complicated. Features of the institution like classic curricula, tenure, and rituals and traditions symbolize important academic ideals. The desire to keep these long-time arrangements can make change like interdisciplinary work difficult to implement (Gumport & Snydman, 2002).

Both universities and the general labor market are inclined to segregate the disciplines making it difficult for faculty to participate in interdisciplinary work. In his article on interdisciplinary strategies, Sá (2008) explains that doctoral students are trained and socialized to advance research in their chosen field of study. Graduates from doctoral programs that stray from the traditional model may be at a disadvantage when entering the job market. This deters institutions from changing the traditional organizational structure. Golde and Gallagher (1999) list three features of doctoral science education that steer students into specialized disciplinary research. These include academic department control, faculty power over students, and research funding. A department’s reputation depends on recognition for research conducted to advance the discipline. Therefore, departments set policies that promote disciplinary rather than interdisciplinary research. Faculty advisors making decisions related to student success within the doctoral program wield a great deal of power over a student’s academic career. For that reason doctoral students generally follow the research interests of their assigned advisors.

Research grants awarded to faculty help fund tuition and research expenses for doctoral students. This is another reason students feel obligated to follow the advisor’s research agenda. Golde and Gallagher (1999) indentify four challenges faced by doctoral students interested in pursuing interdisciplinary research which include finding an advisor, acquiring knowledge in another discipline and integrating conflicting methodologies, finding an intellectual community, and
overcoming fears. These challenges exist because of the way academic institutions are organized and the way funding and other resources are distributed.

Institutional obstacles such as incentives, funding, and priority placed on disciplinary work and professional barriers that include hiring, promotion, status, and recognition (Brewer, 1999) deter efforts to engage in interdisciplinary work. A limited number of faculty conduct interdisciplinary research. This may be due to negative consequences tied to interdisciplinary research, for example, the inability to earn tenure, secure research funding, or receive positive recognition from peers (Golde & Gallagher, 1999). The costs may outweigh the efforts if research funding and evaluation, tenure, and promotion processes established by the department and the institution undervalue interdisciplinary work (Sá, 2008).

Faculty interested in carrying out interdisciplinary work face a variety of other obstacles. Golde and Gallagher (1999) suggest that faculty struggle to find colleagues from other disciplines willing to collaborate. They also find difficulty in coordinating schedules. Brewer (1999) lists additional common obstacles to interdisciplinary work. They include different frames of reference, different methodologies, different terminologies and definitions, and gaining trust and respect from those working in other disciplines. Interdisciplinary researchers struggle to find journals that publish interdisciplinary work as well as the right peer review committee for submitting grants (Giacomini, 2004). Limited resources also negatively affect interdisciplinarity. Each academic unit and department within each unit competes for these limited resources in an attempt to secure funding and personnel to further pursue individual interests. Competition and scarcity of resources leads to self-interest and undermines interdisciplinary efforts (Giacomini, 2004). Time is another issue that deters faculty from participating in interdisciplinary work. For those teaching interdisciplinary courses, time must be spent on developing new courses,
curricula, and research projects (Harris & Holley, 2008). Faculty must also spend time educating themselves on the terminology, issues, and methods used in other disciplines (Sá, 2008). The amount of time and energy required for interdisciplinary work can negatively impact junior faculty members attempting to publish research and gain recognition for the purpose of earning tenure (Giacomini, 2004). Those who attempt to collaborate with others also face communication issues and difficulty managing research teams that consist of members located across campus (Sá, 2008). The complexity of health care and health care systems makes the field of nursing a prime candidate to partner across disciplines. Changes in medicine, patient demographics, patient care delivery models, and technology require nurses to work with a team of health care professionals from various disciplines to effectively and efficiently address patient needs.

The Changing Nursing Profession

A number of societal developments have led to changes in health care and the nursing profession. Advances in technology affect health care delivery. Information systems standardize and improve the collection of data used for billing purposes and in making care decisions. Less invasive procedures and portable equipment allow for flexibility in the location and type of health care procedures chosen for patients (Vlasses & Smeltzer, 2007). These changes call for a highly trained league of nurses. To meet the challenge of producing a highly skilled corps of nurses, colleges and universities must hire nurse educators trained to deliver a curriculum designed to meet the health care demands of the 21st century as well as conduct research to further the profession.

Patients are changing. People live longer with those 65 years and older considered one of the fastest growing population groups. Today’s patients expect more out of the health care system and tolerate less (Wolf & Greenhouse, 2007). Because of the Internet and easy access to
health information, patients take a more active role in their health care. They expect to participate in the planning process and assist in creating a course of action related to their own health (Vlasses & Smeltzer, 2007).

Patient care delivery models have changed over time. New innovative care delivery models like the medical home and ambulatory intensive care units allow for integrated approaches to patient care. Under these new models health care providers engage in partnerships with the patient and a care team which requires collaboration across specialties (Vlasses & Smeltzer, 2007). Wolf and Greenhouse (2007) provide a brief history of patient care delivery models from the 1930’s to the present that have directed change in health care. In the 1930’s under a total patient care model, one nurse per shift provided total care for a group of patients. This individual changed with each shift leaving no one to coordinate care over the length of a patient’s stay. A nursing shortage in the 1940’s led to the implementation of a functional model or assembly line approach to health care. Tasks were divided by level of complexity and assigned to either nurses or assistants with no nursing credentials. This model left little time for anything except meeting the most basic care needs of the patient. In order to better meet patient needs, the functional model evolved into a team care delivery model during the 1950’s. The team of providers, divided by shift, offered an efficient way to provide quality care to a group of patients. With the primary nursing model of the 1960’s, a primary nurse assumed responsibility and accountability for each patient working with patients and family members to coordinate care. Changes to the health care reimbursement system and a focus on costs brought transformation to care models in the 1980’s that continue to exist in part today. These models include the utilization of unlicensed assistive personnel to administer services to reduce health care costs. Improvements in medicine coupled with patients from diverse backgrounds suffering from a
variety of illnesses have created the need for nurses holding an advanced education and specialty skill set (Egenes, 2012).

In an effort to respond to changes in health care, universities with nursing programs are striving to produce highly qualified nurse educators armed with an advanced level of education and trained in the use of the newest technologies and educational approaches that promote successful student learning. When hiring nursing faculty, administrators place less of a focus on the type of doctoral program completed. Instead they aim to hire those with practical experience and theoretical skills (Graves, Tomlinson, Handley, Oliver, Carter-Templeton, Gaskins, Adams, & Wood, 2013). Nurse educators holding the doctor of education have a strong foundation in the areas of curriculum development, teaching practices, and research in an academic setting (Stanton & Packa, 2012). Courses in pedagogy, curriculum, and the use of technology in the classroom transform the way nurse educators trained at the doctoral level teach their students (Graves et al., 2013). Despite the intention to hire highly qualified nursing faculty at the doctoral level, nursing faculty tend to hold fewer academic credentials than faculty in other disciplines. Data indicate approximately 30 percent of nursing faculty hold doctorates compared to 60 percent of all post-secondary faculty (NLN, 2010). The nation needs an educated nursing profession to continually strive for improved patient care while simultaneously dealing with the complexities of health care. In their Vision Series report (NLN, 2012), the NLN set priorities to meet the challenges of connecting education to practice. These priorities direct funding for NLN grants and include promoting collaborative partnerships by transforming the cultures of nursing, education, and clinical practice. The NLN (2012) advocates for nurse educators to receive specialized training that prepares them to conduct research related to pedagogy and the science of nursing education. They stress the importance of nurse educators as subject matter experts as
well as scholars of teaching and learning able to link education to practice. Nurse educators prepared at the doctoral level need a deep understanding of foundations that guide nursing practice as well as educational and evaluation theories and strategies (NLN, 2013). A report issued by the Carnegie Foundation for the Advancement of Teaching (Gilliss, n.d.) recommends including both clinical practice competencies and teacher education courses in all master’s and doctoral nursing programs. Requiring teacher education courses helps nursing students develop sound approaches to teaching and learning. Scholarship emerged as an important focus necessary to guide and improve the nursing profession at the beginning of the 20th century. Through research nursing scholars discover new knowledge used to build a scientific basis for the profession (Robert & Pape, 2011).

**Conclusion**

External demands for change, the advantages of interdisciplinarity, internal components that restrict change, and the changing nursing profession provide the backdrop for this study designed to understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program. In the next chapter I explore the effects of organizational structure, curriculum, faculty, and students on efforts to impact change through the introduction of an interdisciplinary doctoral degree program. A discussion on organizational change highlights the necessity of change, factors contributing to successful change initiatives, and organizational features influencing change. I conclude chapter two by outlining the concept of transformational change, which offers institutions of higher learning a way to modify established methods of operation in an effort to deal with a fluctuating environment and serves as the conceptual framework for this study.
CHAPTER 2: REVIEW OF THE LITERATURE

A review of the literature establishes the framework for this dissertation which explores the experiences of nursing and education faculty and administrators responsible for developing and administering an interdisciplinary doctoral program. The main areas addressed in chapter two include 1) a brief history of higher education, 2) faculty, 3) students, 4) structure and power, 5) financial resources, 6) organizational change and 7) transformational change, which ultimately serves as the conceptual framework for this study.

Higher education’s long, rich history accounts for its current structure and organization. The changing purpose of education, an evolving curriculum, and the introduction of the elective system, general education, graduate education, and professional education all played a major role in shaping contemporary institutions of higher learning (Altbach, Gumport, & Berdalh, 2011; Reuben, 1996; Rudolph, 1990; Schneider & Shoenberg, 1999; Thelin, 2004).

Higher education’s structure and organization affect faculty. Faculty train and build careers in a specific discipline (Clark, 2008). They exhibit loyalty to that discipline and strive to bring recognition and prestige to their careers as well as their chosen field (Schneider & Shoenberg, 1999). Students also train in a specific discipline. The concept of a major program of study provides the opportunity for students to gain depth of knowledge in a particular subject area. At the same time they are indoctrinated into that discipline (Altbach et al., 2011; Schneider and Shoenberg, 1999).

Higher education’s structure and organization also affect the allocation of financial resources. Declining state and federal dollars dedicated to higher education force institutions to compete against other each other for funding. This competition for financial resources extends to the individual colleges and departments within each institution (Altbach et al., 2011). Higher
education’s structure and organization, the curriculum, faculty and students, and the allocation of financial resources influence efforts to develop and participate in interdisciplinary programs.

The challenges of organizational change add another layer of complexity to attempts to introduce and participate in interdisciplinary programs. A number of factors contribute to the success of various change initiatives. A basic understanding of these factors arms administrators and other change agents with the information they need to implement successful change initiatives. Transformational change is a type of change that Eckel and Kezar (2003) define as intentional, deep and pervasive. This change influences institutional culture and occurs over time. The five core strategies identified by these authors as critical to transformational change as well as the 15 supportive strategies will serve as the conceptual framework for this case study.

The literature review begins with a brief history of higher education that includes a discussion on the changing purpose of higher education, the changing curriculum, electives, general education, graduate education, and professional education. The focus then shifts to the evolving role of faculty through higher education’s history and the changing study body. Next, the structure and power within higher education and the allocation of finances is considered. An examination of organizational change describes the necessity of change, elements that contribute to successful change efforts and organizational features that influence change. Research based principles of change identified by Kezar (2001) conclude the discussion on organizational change. The literature review is concluded by exploring transformational change, the study’s conceptual framework.

Understanding the organization and structure of higher education, the delivery of curriculum across that structure, and the challenges of organizational change provide the background necessary to answer the following research questions:
1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?

2. What tactics facilitate development of an interdisciplinary academic program?

3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?

Kezar (2001) indicates that research on organizational change needs to be conducted to help institutions of higher learning facilitate the change process while at the same time maintain traditions of excellence. Change has mostly been studied at the institutional level in relation to leaders and their needs (Kezar, 2001). Kezar (2001) asks how stakeholders can better capture emergent change processes in departments, divisions, and program. This study which considers the development of a doctoral program involving faculty from two different disciplines at a large research university seeks to provide information related to organizational change and specifically change at the college, departmental, and programmatic levels.

A Brief History of Higher Education

Changing Purpose

Institutions of higher learning reflect structures and concepts shaped over time. The history of higher education in the U.S. dates back to the opening of Harvard University in 1636. Founders of colleges established during the colonial period intended to produce competent leaders, an educated clergy, and cultured men in order to establish a civilized society (Rudolph, 1990). After the American Revolution, equality and democracy emerged as important values to the American people and changed the purpose of higher education. Instead of a religious focus and an indulgence for the wealthy, the idea of a college education transformed into an opportunity to prepare responsible citizens with diverse backgrounds to run a successful country.
A college education offered a way to develop a sense of unity among the many Europeans who traveled to America to start a new life (Rudolph, 1990). College as a societal investment eventually transitioned into a personal investment with higher education thought of as a means to increasing personal wealth (Rudolph, 1990). Contemporary society tends to view a college education as a way to obtain job skills and provide job opportunities (Labaree, 2006). Students prefer to learn information that is practical and immediately applicable (Levine, 1997). Institutions of higher learning are pushed to prepare students for work. They have responded to the market’s demands and, in order to attract students and tuition dollars, moved toward a vocational orientation giving students knowledge perceived to be practical and leading to immediate employment rather than a liberal education (Labaree, 2006).

**Changing Curriculum**

The Reformation and the Renaissance influenced the original curriculum of the colonial colleges (Rudolph, 1990). The course of study included a mix of medieval arts and sciences, literature, philosophy, logic, Greek, and Latin (Altbach et al., 2011; Rudolph, 1990). Students learned to think at an advanced level through the grammatical structures of the ancient languages of Greek and Latin. The study of Latin and Greek also expanded memory. Logic taught students rational and critical thinking skills as well as complex problem-solving skills (Altbach et al., 2011).

The original curriculum was designed to give students a broad knowledge base, strong intellectual skills, and a sense of personal and social responsibility while focusing on the importance of inquiry, analysis, and communication (Association of American Colleges and Universities, 2007). Through the original curriculum, students received a liberal education designed to produce cultured individuals by educating youth on social norms while at the same
time preparing them for employment in churches and as political leaders (Altbach et al., 2011).

In the Yale Report of 1828, faculty described the classical curriculum as necessary for a thorough education. They argued that the classical curriculum provided men of newfound stature and wealth with the education they needed to converse intelligently and apply their financial assets to the good of the country (Rudolph, 1990).

Societal changes led to curricular changes (Rudolph, 1990). Growth and development across the nation as well as economic, social, and political turmoil after the Civil War challenged colleges to address societal needs (Reuben, 1996). The original curriculum produced gentlemen and scholars, but leaders questioned the usefulness of the curriculum in training individuals capable of transforming uncharted territory into a civilized nation. Because of the many opportunities available to build wealth and achieve material success, the desire and need to pursue a college degree waned. In the 1850’s a decline in enrollment prompted colleges to amend the curriculum to meet popular demands (Rudolph, 1990).

The curriculum changed to meet the needs of an industrialized society and advance national development (Thelin, 2004). The creation of the land grant colleges through the Morrill Federal Land Grant Act of 1862 was the first and best-known example of higher education’s commitment to societal issues (Altbach et al., 2011). The Morrill Act called for the establishment of institutions of higher learning focused on providing agricultural and mechanical training (Rudolph, 1990). The curriculum was broad and utilitarian, designed to prepare students in practical fields and further industry (Labaree, 2006; Thelin, 2004). Land grant colleges proved to the public how institutions of higher learning could provide practical instruction. The curriculum focused on subjects essential to westward expansion that included agriculture, mining.
mechanics, engineering and military training. This practical curriculum gave students the opportunity to apply information learned to everyday problems (Thelin, 2004).

Science greatly influenced the college curriculum. Educators viewed science as a type of mental training designed to turn students into investigators searching for the ultimate truth, which was considered an important purpose of a university (Reuben, 1996). Students engaged in scientific experiments learned how to solve complex problems (Altbach et al., 2011). The introduction of a scientific point of view questioned traditional beliefs, encouraged discovery, and led to the addition of mathematics to the curriculum (Rudolph, 1990). Harvard was first to hire a professor of mathematics and natural philosophy and first to offer a Bachelor of Science degree to students studying science (Rudolph, 1990). American faculty who trained in Europe after the Scientific Revolution returned to the United States excited to teach physics, anatomy, chemistry, and advanced math which were added to the final two years of study (Altbach et al., 2011). In the late 1800’s leaders in higher education believed they could grow enrollments by expanding the curriculum to include science. Due to popular interest in science, leaders believed that offering a curriculum based around these interests would encourage individuals to enroll in college (Reuben, 1996).

As knowledge increased in complexity, new subjects emerged to help set boundaries. New subject areas gained legitimacy through the creation of scholarly societies, academic journals, and rigorous research methodologies. Universities determined what knowledge was worth knowing through the placement of various subjects in the curriculum (Altbach et al., 2011). Because of the large number of subject areas available to study, the curriculum became specialized with juniors and seniors focusing on a major field of study and graduate schools requiring students to choose a particular field of study (Thelin, 2004).
Student interests and the labor market also affect curriculum (Altbach et al., 2011). The 1960’s represented a time of student discontent with students demanding educational reforms. The introduction of interdisciplinary teaching and research served as a reform measure designed to break down traditional academic silos and help meet student demands (Altbach et al., 2011). Interdisciplinarity involves two or more disciplines working together. Disciplines combine studies in their own fields with information gleaned from research conducted in other fields to form a new content area or method of study (Altbach et al., 2011). The vocationalization of the curriculum has been a trend over the last 20 years. Both students and employers demand graduates possess the knowledge, skills, and abilities to gain employment in a variety of complex jobs (Altbach et al., 2011).

Electives

The elective system developed in response to a perceived lack of student motivation. Rudolph (1990), in his book on the history of the American college and university, explains that after the Civil War, student interest focused on extracurricular activities rather than the desire to excel in a profession. The president of Harvard, Charles Eliot, instituted the elective system in an effort to redirect student attention to academics. The elective system allowed students to choose subjects for which they exhibited a natural propensity. Eliot believed this would increase motivation to learn (Rudolph, 1990). The elective system provided the opportunity for true learning rather than recitations (Altbach et al., 2011). Electives grew in popularity as a result of their immediate applicability. This new course of study provided the opportunity for both faculty and students to research subjects of interest and accumulate knowledge (Rudolph, 1990). The elective system made college more appealing by giving students the chance to study modern and practical subjects (Reuben, 1996).
In her book on the making of the modern university, Reuben (1996) describes the elective system as a way to transform colleges into universities by expanding the curriculum and providing students with instruction in a variety of subjects. Leaders in higher education believed that to distinguish a college from an American University they needed to increase size and variety of instruction. To quickly meet this goal, they chose to offer electives. The elective system gave students the opportunity to conduct research in subjects of interest in the classics or the sciences and through this research expand American scholarship (Reuben, 1996).

The number of subject areas multiplied as a result of the generation of new knowledge. Altbach et al., (2011) contend that with so many topics emerging, colleges found it nearly impossible to educate students on every subject. Some educators suggested that students choose topics to study. Students were attending college at an older age making them more mature and capable of selecting their own course of study (Altbach et al., 2011). The elective system inspired other changes like majors, minors, concentrations, and general education (Reuben, 1996).

**General Education**

Robert Hutchins, who served as the president of the University of Chicago in 1919, believed that college functioned to elevate the common man and therefore society. He introduced a prescribed program of general education to carry out this task (Altbach et al., 2011). General education provides a range of subjects to study giving students a breadth of knowledge. The major provides students with a depth of knowledge (Schneider & Shoenberg, 1999). Today’s colleges and universities strive to develop the intellectual skills of their students, help them understand different viewpoints, teach them critical thinking, analytical thinking, scientific thinking, communication, problem-solving skills, and develop social and ethical responsibility.
General education allows for a curriculum that blends general skills with field specific knowledge (Schneider & Shoenberg, 1999).

**Graduate Education**

In an effort to transition from colleges to universities, institutions of higher learning in the United States followed the German example and established graduate and professional schools. Graduate programs provided the opportunity for faculty and students to generate new knowledge through research (Rudolph, 1990). In 1876, Johns Hopkins University opened as the first graduate institution. The institution linked graduate studies to research and emphasized research as a major university function. Rather than conducting research for the sake of new discoveries, research functioned as a business requiring labor, capital, and management (Altbach et al., 2011). Graduate education expanded with the increase in funding provided by the federal government for research projects. Offering doctoral programs in a variety of disciplines helped institutions attract more students and well-known scholars with the intent of increasing prestige and gaining a competitive edge over other institutions (Altbach et al., 2011).

**Professional Education**

The complexities of an industrial society seeking experts with specialized knowledge and skills achieved through rigorous training led to the establishment of professional schools in a variety of areas (Rudolph, 1990). Professional schools meet the needs of a professionalized society. The curriculum substantiates the knowledge required by those working in the fields represented by these schools and increases specialization (Altbach et al., 2011). Starting in the late nineteenth century, universities began to gradually incorporate professional education into the curriculum. Since World War II, the number of professional education fields has greatly expanded. Prior to professional education, training was accomplished through apprenticeships...
That training now occurs in institutions of higher learning (Altbach et al., 2011). The boundaries of tradition separate professional fields and the liberal arts putting faculty into silos based on their academic area of expertise. This makes working together to provide an integrative approach to learning difficult for faculty (Association of American Colleges and Universities, 2007).

Despite the various changes that have occurred over time, the curriculum has remained fairly stable. Academic culture plays a significant role in this stability. One of the university’s core missions, the preservation of the knowledge of past generations, has worked to stabilize the curriculum despite change (Altbach et al., 2011). The sections that follow list additional areas within higher education that have experienced change over time. These areas influence organizational change efforts, including the development of interdisciplinary degree programs which serves as the focus of this study.

**Faculty**

In addition to the purpose of higher education and the curriculum, institutions of higher learning have witnessed changes in the faculty. Altbach et al., (2011) report on the changing demographics of faculty members. More and more work part-time. An increasing number are hired on a non-tenure track with a focus on teaching rather than research. The number of female faculty members has increased as well as the number representing racial and ethnic minority groups. Faculty members also represent different religions and social classes (Altbach et al., 2011). The diversity of faculty members hired to teach at institutions of higher learning impacts the institution’s culture which in turn impacts organizational change efforts.

Clark (2008) discusses the changes undergone over time by faculty. Previously no system of graduate education existed. Faculty held bachelor’s degrees with some advanced training in
one area such as theology. Faculty received no distinctions for their scholarship (Clark, 2008). Following the German model of higher education, institutions of higher learning began to emphasize research and graduate training. Holding a doctorate soon became a requirement for teaching, particularly in the more prestigious institutions (Altbach et al., 2011). Faculty now hold doctoral degrees and are considered specialists in one particular area possessing knowledge gained through research. They moved from teaching a breadth of subjects with moderate enthusiasm to teaching in one specialized area with great passion for that subject area (Clark, 2008).

Changes to the curriculum over time influenced the way faculty train and work. The introduction of the elective system required colleges and universities to hire full-time faculty with appropriate training in specific disciplines and the ability to conduct research in order to offer a curriculum covering an array of subjects (Altbach et al., 2011). The emphasis on scientific mental training changed the way faculty worked. In order to encourage students to discover new truths, faculty focused on research. They needed to conduct research in order to teach their students how to carry out an investigation (Reuben, 1996).

The working life and culture of most academics is encapsulated in a disciplinary and institutional framework (Altbach et al., 2011). Clark (2008) explains that professional identity is based on discipline. Faculty members working at institutions of higher learning hold unique value systems based around their specialized area of study. They tend to exhibit discipline specific perspectives and vocabularies. Each discipline boasts its own way of training and initiating new members. These unique value systems influence how members within the discipline interact with each other, choose a specialization, and advance within the profession (Clark, 2008). Each discipline lays claim to its own culture with distinctive beliefs. Members are
socialized to their particular area of expertise through graduate school, professional standards, and the tenure and promotion process (Kezar, 2001). Each discipline also encompasses established modes of inquiry and content areas (Altbach et al., 2011). Faculty members tend to identify with the disciple and remain loyal to the discipline which works to fragment rather than integrate the academic profession (Schneider & Shoenberg, 1999).

The importance placed on research led to the development of academic journals and professional associations specific to each discipline (Rudolph, 1990). Professional associations offered a way to standardize a discipline and academic programming across institutions (Altbach et al., 2011). These associations brought specialists together to affirm their sense of belonging to that specific group further alienating faculty from those working in disciplines outside of their own (Rudolph, 1990) and making it difficult to introduce interdisciplinary efforts. Similar to the socialization of faculty, the socialization of students into their chosen disciplines as well as changing student demographics and student needs also influences organizational change efforts.

**Students**

The student population has changed over the years. Initially colleges accepted only men (Altbach et al., 2011). Thelin (2004), in his book on the history of American higher education, discusses the growing and changing student body. Affluent families sent their sons to college to study a classic curriculum designed to endow students with the cultural attributes considered signs of superior status as well as prepare them for leadership positions in politics or religion. Self-made men wanted their sons to attend college alongside the sons of established, educated families in order to better position themselves within society (Thelin, 2004).

The number of students attending college increased after the passage of the 1862 Morrill Act which called for the creation of accessible land grant colleges and universities. Land grant
colleges provided training in teaching and home economics making the pursuit of higher education an attractive option for women (Thelin 2004). The passage of the Servicemen’s Readjustment Act in 1944, later known as the GI Bill, provided those returning from military service with the opportunity to enroll in school. With the labor market transitioning from heavy production of wartime items to a peacetime economy, congress grew concerned that the many servicemen returning from duty abroad after World War II might face unemployment. The GI Bill unexpectedly increased student enrollments across the country. These students chose to major in practical subjects such as business administration and engineering in an effort to secure employment after graduation (Thelin, 2004). The number of people pursuing a college degree also increased as the country moved from a manufacturing to a knowledge-based economy (Altbach et al., 2011).

The student population became more diverse as institutions of higher learning opened their doors in an attempt to increase enrollments (Clark, 2008). Rather than specialize in catering to the elite, institutions of higher education began offering an education to the masses. The expansion gave an increasing number of people from a variety of backgrounds access to higher education (Thelin, 2004). In his article on the changing academic profession, Levine (1997) discusses the changing student body. Institutions of higher learning have seen an increase in the number of female students, students 25 years of age or older, and part-time students. For these students, attending college is one of many activities they engage in every day. Their needs differ from those of traditional students who enroll directly after completing high school, attend full-time, and live on campus. These non-traditional students want colleges that operate around their schedules. They want helpful staff and a quality education at a low cost. When choosing an institution of higher learning they consider convenience, quality, service, and cost.
are paying for their own education these students often demand more from faculty than the students of the past (Levine, 1997).

The different types of institutions of higher learning located across the country give students a number of options to meet their educational needs. The curricula offer applicable knowledge that prepares students for employment in technical or semiprofessional jobs. A variety of institutions means different kinds of instruction can be offered for students at different levels and at different points in their lives (Altbach et al., 2011).

Students’ interests have changed over time. Higher education responds to students’ curricular interests by expanding fields and departments and eliminating unpopular offerings (Altbach et al., 2011). In the 1960’s students demanded a socially relevant curriculum to coincide with the social issues of the times. In the 1980’s, they demanded more relevance in university studies which led to an increase in vocational and professional majors like business, engineering, and law. Fewer and fewer graduate students are choosing to major in the traditional arts and sciences (Altbach et al., 2011). An upsurge in the number of graduate students studying practitioner-oriented subjects like business, the health professions, engineering, and education indicates a growing interest in professional subjects. The creation of doctorates in education, social work, and business administration also provides evidence of the significance of professional studies (Altbach et al., 2011).

Students are indoctrinated into their chosen field of study where they gain exposure to a value system specific to the discipline. The curriculum operates as a form of organizational culture, socializing students to the content and skills they need to navigate through the university (Altbach et al., 2011). As noted in Schneider and Shoenberg (1999), the current arrangement for higher education rests on the concept of knowledge structured by disciplines. Each discipline
developed into an academic department. Students are socialized into the language, curriculum, beliefs, and norms of their area of study as well as to the notion that no reasons substantiate the integration of learning across multiple subject areas. They think of themselves as studying a specific well-defined subject when in fact today’s complex world requires scholars to cross boundaries in an attempt to explore and make new discoveries. Students in pre-professional programs focused on learning about a particular field of work rarely have the opportunity to connect course materials to societal or ethical questions involving other subject areas, and as a result demonstrate little concern regarding social and ethical responsibilities fundamental to any field of study. Instead, students claim allegiance to their chosen field of study (Schneider & Shoenberg, 1999).

Some faculty members consider organized research units (ORUs) a threat to fostering student loyalty to the discipline. In an article on graduate education and research, Gumport (2011) discusses faculty concerns regarding doctoral students working in ORUs. These research units, located outside of the department, help institutions of higher learning increase their funding base and provide an opportunity for interdisciplinary study and applied research. National and state government as well as industry and foundations typically fund ORUs. After World War II, ORUs focused on meeting societal demands for research that fell outside of the scope of the instructional areas within a department. These units “have extended university research into interdisciplinary, applied, and capital-intensive endeavors” (p. 388). Doctoral students work in ORUs which bridge the gap between disciplinary training and real world application of that training. Some faculty members prefer that students receive strong disciplinary training before engaging in any other work. They fear that students will distance themselves from their departments after working in ORUs outfitted with up-to-date equipment
and researchers with no affiliation to the institution. Any work outside of the discipline may be
construed as detrimental to building loyalty to the discipline, and therefore viewed as negatively
impacting dedication and commitment to the discipline (Gumport, 2011). The structure of
institutions of higher learning perpetuates the compartmentalization of faculty and students.

Structure and Power

Structure

The structure of higher education, in addition to the purpose, curriculum, faculty, and
students affects organizational change efforts. The current structure of higher education has a
long history. Kuh (1996) explains that institutions of higher learning are organized vertically
with schools, colleges, student support services, business operations, and athletics decentralized
and governance, responsibility, and resources handled peripherally. These units tend to focus on
promoting their own goals rather than working together to achieve a broader institutional
purpose (Kuh, 1996). Demands placed on faculty to conduct research, publish and present, and
demonstrate scholarly achievements in their specific field of expertise tend to reinforce this
vertical arrangement (Keeling, Underhile, & Wall 2007). In the existing structure formally
designated positions assume various types of responsibility; interactions take place between
subordinates and superiors, and decisions are based on written guidelines (Clark, 2008).

The increase in the amount of knowledge available for students to learn forced
institutions of higher learning move to the concept of specialization. Academic specialization
offered students the chance to master a subject and learn the best problem-solving methods for
problems encountered in that particular discipline (Clark, 2008). Faculty interests dictated the
specialized areas available for study (Altbach et al., 2011). Faculty members in the sciences
perpetuated the idea of specialization by limiting their scope of study in an effort to conduct
rigorous experiments and produce reliable results (Reuben, 1996). The specialization of subjects and the creation of new knowledge led to departmentalization (Rudolph, 1990).

By providing a form of organization and authority within a subject area, departmentalization offered a way for institutions of higher learning to address the issue of increasing size (Rudolph, 1990). Subject-oriented departments offered a practical way to organize a growing faculty (Reuben, 1996). The creation of divisions and departments to carry out the different functions of higher education, including the preservation of truth, the creation of new knowledge, and serving societal needs, introduced a new approach to delegating authority and addressing these functions (Clark, 2008). However, this division by subject area created competition among faculty members in different departments for funding, attention, prestige, and students (Rudolph, 1990). Each department and college promoted their own set of goals, particularly when research and specialized training were considered more important than a liberal education (Clark, 2008). A separate department chair and a separate faculty hierarchy existed for every subject area forcing groups to compete against one another for resources. The previous view of all knowledge as universal was replaced by the desire of faculty to carry out those pursuits specific to individual interests (Rudolph, 1990).

Departmentalization with a focus on learning and creating new knowledge in one particular area instilled in faculty a loyalty to the discipline rather than the institution (Rudolph, 1990). Academic departments provide faculty and students with a small community bound by a common interest. Members sharing a common interest learn, collaborate, and explore together (Schneider & Shoenberg, 1999). The departments developed into individual entities within each institution of higher learning segregating faculty from each other and isolating the university from the community (Reuben, 1996). Commenting on organizational structure, Altbach et al.,
(2011) explain how the formation of departments within colleges and universities decentralized and compartmentalized graduate instruction. Graduate programs are organized as a separate level from undergraduate programs. At the same time they reside in a department responsible for undergraduate instruction and therefore influence undergraduate programs. Faculty members in each department hold the authority to design and coordinate appropriate curriculum and research training. They further advance themselves and their discipline by training future researchers.

Because of the large size of most institutions, the specialized work carried out by faculty, and the many goals set by institutions of higher learning, faculty rarely work with other faculty members outside of their discipline (Clark, 2008). Faculty members are not typically rewarded for their efforts to rethink current academic structures. Promotion and tenure tend to center on research. Therefore, no incentive exists to move outside of one’s discipline (Schneider & Shoenberg, 1999).

**Power**

Authority in institutions of higher learning tends to be decentralized. Clark (2008) explains how the variety of divisions and departments working to achieve a large number of goals decentralizes authority. Administrators, faculty, and committee members make decisions regarding the areas for which they hold responsibility. Other forms of organization and authority are found among faculty members. Peers, through information interactions, make decisions. The formal hierarchy of the institution plays a small part in this decision making process. A number of factors affect the degree of authority held by faculty. Factors such as status within one’s discipline, faculty rank, seniority, and expertise within a subject area give faculty a type of authority not exhibited on an organizational chart (Clark, 2008).
To handle the growth of institutions of higher learning as well as the increase in knowledge, an academic hierarchy of the professoriate was established. This hierarchy also addressed issues of efficiency, order and organization. Faculty members earned the rank of assistant, associate or full professor (Rudolph, 1990). The rankings bestowed faculty members various degrees of authority with full professors holding the most power and assistant professors the least (Clark, 2008).

Because of size, decision making in institutions of higher learning is segmented by college, division, and department (Schneider & Shoenberg, 1999). Disciplines and departments are unofficially placed into a hierarchy. The arts and sciences, medicine, and law are ranked at the top followed by the hard sciences, the social sciences, and the humanities. Education and agriculture fall toward the bottom of the hierarchy (Altbach et al., 2011). Faculty members hold authority at the departmental level. As professionals they desire a large degree of autonomy from normal organizational control. Faculty believe they are well suited to make decisions related to their area of expertise. However, amid a variety of interests and commitments faculty members have moved from protecting the rights of all faculty to protecting the autonomy of their own departments, themselves, and their work (Schneider & Shoenberg, 1999). This autonomy makes attempts at interdisciplinary efforts difficult to initiate.

Faculty members hold less influence and power now than they did during higher education’s period of expansion. As colleges and universities grew in size to include graduate study and research, the administrative structure changed in order to facilitate coordination and control. Administrators exhibit more control in order to determine how best to handle decreasing resources (Altbach et al., 2011). The allocation of resources within institutions of higher education impacts attempts to implement organizational change.
Financial Resources

Multiple sources fund higher education including tuition and fees, grants, endowments, and the government (Baum, 2001). McGuinness (2011), in an article on the states and higher education, explained the increasing involvement of state government throughout higher education’s history as a necessity in order to provide a systematic method of allocating funds to the many colleges and universities that opened across the county. State funding for higher education moved from the stage of building and maintaining to that of maximizing institutional resources to meet state goals. State governments support a public agenda that addresses major social, economic, and educational issues. Higher education is linked to this agenda through efforts to provide advanced education to citizens and conduct research that contributes to economic development. Money allocated to higher education by the government has declined due to other pressing social needs and the public opposition to increased taxes (McGuinness, 2011).

The country’s recent economic downturn negatively impacted higher education’s various funding sources (Altbach et al., 2011). For fiscal year 2013, total educational revenue per student, which consists of net tuition plus state and local funding, decreased by 6.2 percent when compared the 2008 fiscal year. Revenue generated through tuition increased by 3.5 percent over the 2012 fiscal year reaching an all-time high (SHEEO, 2014, April 16). Higher education requires substantial financial commitment from state and local governments. In fiscal year 2013 state and local governments spent $81.6 billion dollars on higher education, eight percent lower than the 2008 pre-recession dollar amount (SHEEO, 2014). States are increasing their appropriations to areas such as Medicaid and prisons while at the same time decreasing funding for higher education (Okundae, 2004). Budget cuts affect a wide range of areas including
academic programming, enrollment, salaries, professional development opportunities, and research opportunities. Decreased funding to higher education hits faculty in terms of salaries, supplemental pay opportunities, and teaching load and negatively impacts morale (Altbach et al., 2011). Universities compete against each other, academic departments within a university compete against one another, and faculty members within a department compete against each other for students and depleting revenues. Faculty members compete to secure shrinking grant dollars. Competition for funding often influences the choices faculty members make when deciding on potential topics of research (Altbach et al., 2011).

Institutions of higher learning attempting to expand graduate degree program offerings faced a new set of problems. In his book on the history of American higher education, Thelin (2004) discusses these issues. Faculty teaching advanced courses and seminars asked for smaller class sizes which translated into smaller enrollments. They also requested a reduced teaching load, sabbaticals, and more money for resources such as labs and libraries. To ensure that dissertation committee chairs held the appropriate credentials, institutions were required to staff the faculty ranks with an adequate number of tenured professors. This increased payroll expenses (Thelin, 2004). Beginning in the 1950’s university presidents handled diminishing resources by giving institutional support to those programs with the potential for prestige and the ability to secure resources from external sources. The life sciences tend to receive the bulk of the money provided by government and industry for research and development followed by engineering. The social sciences have experienced a decline in the amount of funding for research and development (Altbach et al., 2011).

The purpose of a college education, the faculty, students, structure, and financial resources has each endured some form of change during higher education’s history. However,
colleges and universities tend to resist changes to the curriculum, teaching methods, and faculty governance necessary to meet societal needs (Altbach et al., 2011). In the next section I discuss the necessity of change, factors contributing to successful change initiatives, organizational features that influence change, and principles of change identified through Kezar’s (2001) research on organizational change in higher education.

Organizational Change

“Reforms in teaching and curricula will be absolutely necessary for our colleges to survive and thrive in contexts of technological revolution and multiplying educational providers” (Schneider & Shoenberg, 1999, p. 432).

The Necessity of Change

Organizations, including institutions of higher learning, experience change. Organizational change involves the reorganization of information which leads to a number of outcomes. Scare resources are redistributed. People construct a new image of their work and work activities (Loomis & Rodrriquez, 2009). A variety of factors necessitate change. The economy, government policies, and the population’s changing demographics affect institutions of higher learning forcing them to make adjustments (Clark, 2008). Colleges and universities faced with various challenges such as a changing student population and the need to diversify revenue sources must undergo some sort of organizational change to deal with those challenges (Morphew, 2009). To compete with the large number of colleges and universities available to prospective students, institutions of higher learning must be entrepreneurial and find new ways to proceed that can be combined with long-standing traditions (Clark, 2008). Institutions of higher learning are bound by tradition and successful due to their ability to maintain focus on their mission. Proactive change initiatives necessary to advance the institution rather than reactive
change initiatives resulting from external forces are in the best interest of higher education (Kezar, 2001). Leaders need to understand which factors lead to success and which factors result in failed change attempts in order to choose appropriate change strategies.

**Factors Contributing to Successful Change Initiatives**

A number of factors contribute to the success of change initiatives. A willingness to participate, commitment to the organization, the support of administrators as well as the support of those responsible for implementation, regular communication, leadership style, and balancing employee needs with the demands of external constituencies impact change efforts. Results from a study conducted by Miller, Johnson, and Grau (1994) indicate that employees with a need for high achievement who received ample information in a timely and appropriate manner were willing to participate in an organizational change effort. Information related to the change initiative that is considered timely, useful, and conveyed in an appropriate manner positively affect employee attitudes about change. Information that provides scenarios of the change process and images of employees’ new roles is considered valuable. Leaders need to carefully plan the content and how the initial announcement regarding the change program will be presented to employees (Miller et al., 1994).

In his study on readiness for change, Nordin (2012) discusses the importance of commitment to the change process. For change to succeed academic staff need to have an emotional attachment to, indentify with, and be involved in the institution. Employees highly committed to the organization are willing to make sacrifices for the good of the organization. However, because change involves uncertainty, organizational members tend to oppose change unless given compelling reasons in support of change. Therefore, change agents must ensure that the proposed plan fits the organization’s needs (Nordin, 2012). Organizational members who
value a change initiative are more likely to take the actions necessary to implement the change. Leaders encounter resistance when some are committed to the change and others are not. Consistent actions and messages from leadership, information shared through social interactions, and shared experiences promote a sense of readiness to change in organizational members (Nordin, 2012).

Support from both administrators and those responsible for implementation affects change efforts. Keenan and Marchel (2007) describe an organizational development consultant-assisted project launched within an education department at a four-year university that involved revising and rebuilding an existing undergraduate degree program. Gathering information from faculty to consider their perspectives and garner their support as well as administrative support were both vital to rebuilding an exceptional program.

Kezar’s (2001) research attests to the importance of communication in executing change initiatives successfully. Change often requires extensive debate among the many stakeholders tied to the change initiative. Giving everyone the chance to get involved and voice opinions minimizes status differences and helps achieve consensus through broad buy-in. People may not understand the reason behind the proposed change. They may be disinterested in the change and lack motivation to participate. Allowing individuals the opportunity to talk about the change helps realign values and norms. People then become more receptive to implementation because they understand the reason behind the change initiative (Kezar, 2001). Through constant deliberation about the change, individuals take ownership of the change initiative and are motivated into action. Newly formed networks connecting individuals with a common purpose provide an outlet for sharing information necessary to carry out the change program. These
networks help keep change agents motivated by offering a support system to address challenges that might arise during the process as well as an opportunity to exchange ideas (Kezar, 2001).

Leadership style plays a role in the success of organizational change. In her review of research on change conducted within higher education, Kezar (2001) indicates that a distributed leadership style, rather than the top-down approach, helps secure broad support for the change initiative. Distributed leadership involves a group of people and invests in leadership at all levels to include students, faculty, staff, and administrators. The change agents receive the data they need to help them understand the reasons for change as well as to develop plans to complete the change initiative. Change from the top down is more likely to fail because the tenure of a president tends to be short-lived when compared to that of faculty and those responsible for carrying out the change initiative (Kezar, 2001).

Research conducted by Nordin (2012) revealed a significant relationship between leader’s behavior, employees’ commitment to the organization, and readiness for change defined as the predisposition to transform established behavior patterns. Transactional leadership involves providing rewards to subordinates in exchange for performance on the job. Transformational leaders influence followers to embrace the leader’s vision, sometimes at the expense of their own interests, for the good of the company. By fostering organizational commitment and both transformational and transactional leadership behavior, institutions of higher learning can ready employees for change and increase the likelihood of implementing a successful change program (Nordin, 2012).

In his study on understanding change in higher education, Morphew (2009) emphasized the importance of balancing employee needs with the demands of external constituents. Institutionalized organizations, such as research and four-year institutions, are filled with highly
professionalized and specialized individuals and hard to define goals and technologies. To avoid complete resistance to change initiatives, the demands of these individuals as they relate to organizational norms must be addressed when implementing change designed to appease external constituents (Morphew, 2009). In addition to understanding the factors that lead to successful change efforts, leaders must be aware of organizational features unique to higher education that influence change.

**Organizational Features Influencing Change**

Institutions of higher education possess unique characteristics that leaders should consider when planning change. In her extensive synthesis on research conducted on organizational change in higher education, Kezar (2001) lists a number of these characteristics that influence the change process. An organization’s culture influences efforts to implement change. Institutions of higher education serve long-standing missions and follow set norms and socialization processes based on the mission and individual identities. An institution’s long-standing mission and organizational culture make change difficult. Universities are interdependent organizations affected by activities and decisions carried out by disciplinary societies, the federal government and accrediting agencies. Their long history of autonomy from any strict oversight makes them relatively independent of the environment. They receive more freedom and face less scrutiny than other enterprises. However, external pressures to meet various demands such as solving social problems and assisting with economic development coupled with a decrease in government funding increases the likelihood that higher education institutions will implement change in response to these external demands (Kezar, 2001).

The unique structure of higher education involving faculty, administrators, and trustees influences efforts to implement change. Kezar (2001) explains that colleges and universities are
loosely coupled systems, meaning a high degree of specialization exists among the workers in each unit, coordination between units is limited, and individual units within the institution almost function independently. Therefore, large scale change efforts designed to affect the entire organization are difficult to master.

Other organizational features influencing change include differing value systems between faculty and administrators, a shared governance system, employee commitment and tenure, ambiguous goals, and image and success (Kezar, 2001). Understanding factors that foster successful change programs as well as features unique to higher education can help leaders execute a successful change proposal.

**Principles of Change**

Through a meta-analysis conducted on theories and models of change applied to higher education, Kezar (2001) developed research-based principles of change. These principles, outlined in Table 1 and explained below, emerged in many of the different approaches to change and can be used as issues to consider when engaging in systematic change.

Kezar (2001) includes promoting organizational self-discovery as one of the key factors to influencing change. Setting up opportunities for people to come together and talk about and understand important issues works to facilitate self-discovery. Understanding the institution’s culture affects change. Through the completion of a cultural audit, institutional members gain a better understanding of their own culture. Change strategies should reflect the institutions history, traditions, and norms.

Kezar (2001) identifies an awareness of politics as another important principle of change. Leaders must familiarize themselves with organizational politics by developing an understanding of alliances, determining who holds influence, understanding what conflicts currently exist,
determining how to use informal processes currently in place, and learning reasons behind possible resistance to change.

Another principle involves laying the groundwork for change (Kezar, 2001). A collaborative environment that allows for continual assessment and open conversations about change makes it easier to lay the groundwork. Assessment and analysis of the change proposal to determine compatibility with the institution’s culture sets the stage for change.

Another principle uncovered by Kezar (2001) stresses a focus on adaptability rather than dramatic transformational change initiatives. Introducing small incremental changes works best for institutions like colleges and universities where the division of tasks, power, and authority make global change difficult to manage. Experimenting with change initiatives works well in a loosely coupled system typically found in higher education because one or two groups receive the opportunity to try an innovation. This saves the institution time and resources (Kezar, 2001).

Through her analysis Kezar (2001) discovered the importance of facilitating interactions in an effort to develop new mental models. Facilitating interaction through strategic planning, committee work, or staff development gives employees the opportunity to develop new mental models necessary to understand the change initiative as well as integrate these models into their existing paradigms. Those leading change programs need to balance external forces with the internal environment. Constant dialogue between stakeholders helps determine the best way to respond to external conditions (Kezar, 2001).

Kezar’s (2001) research revealed additional principles important to change. Using a combination of tools, such as metaphors and stories, and the strategies of planning and assessment helps people understand the change initiative. Recognizing change as a disorderly process is another important principle. Studies show that dialogue with no clear strategy has led
to fundamental change. Leaders and change agents need to be open to ambiguity which can generate new ideas (Kezar, 2001). Another principle discovered through the analysis indicates the importance of maintaining higher education’s tradition of shared governance and collective decision making which promotes support from administrators, faculty, and staff. Kezar’s (2001) analysis emphasizes the importance of articulating and maintaining core characteristics during the change process in an effort to provide employees with a sense of stability. Another principle of change centers on image. Some change programs stem from efforts to emulate a particular institutional image. Therefore leaders need to be aware of image (Kezar, 2001).

Kezar’s (2001) list of research-based principles of change includes connecting individual and institutional identity to the change process. Because employees tend to work for many years at one institution their identities become tied to the institution and the institution’s identity. The meta-analysis established the importance of creating a culture of risk. This gives people the freedom to safely engage in making choices that differ from the norm (Kezar, 2001).

Realizing that different levels or aspects of the organization need different change models is another fundamental principle uncovered through Kezar’s (2001) meta-analysis. An appropriate change strategy at the departmental level may not work at the campus-wide level. In addition to finding an appropriate change strategy based on the level of the organization affected by the change, leaders must also consider the change initiative in relation to the change strategy. Different change initiatives require the use of different change strategies. Research shows that aligning the approach to the type of change facilitates the change process (Kezar, 2001).

According to the final principle of change uncovered through Kezar’s (2001) analysis, leaders should consider combining models in order to develop a comprehensive approach to
change. A combination of approaches allows leaders to build a model that suits their particular institution.

A changing environment forces institutions of higher learning to undergo change. Factors such as the purpose of higher education, the curriculum, faculty, students, structure and power, and financial resources affect organizational change. Transformational change, which serves as the study’s conceptual framework, provides an option for institutional leaders attempting to meet external demands while at the same time continuing to emphasize the traditions inherent in higher education.

Table 1

*Kezar’s Research-Based Principles of Change (Kezar, 2001)*

<table>
<thead>
<tr>
<th>Principals</th>
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<tbody>
<tr>
<td>Promote organizational self-discovery</td>
</tr>
<tr>
<td>Realize that an institution’s culture and type affect change</td>
</tr>
<tr>
<td>Be aware of politics</td>
</tr>
<tr>
<td>Lay groundwork</td>
</tr>
<tr>
<td>Focus on adaptability</td>
</tr>
<tr>
<td>Facilitate interactions to develop new mental models</td>
</tr>
<tr>
<td>Strive to create homeostasis and balance external forces with the internal environment</td>
</tr>
<tr>
<td>Combine teleological tools, such as establishing a vision, planning or strategy, with social-cognition, symbolic, and political strategies</td>
</tr>
<tr>
<td>Realize that change is a disorderly process</td>
</tr>
<tr>
<td>Promote shared governance or collective decision making</td>
</tr>
<tr>
<td>Articulate and maintain core characteristics</td>
</tr>
<tr>
<td>Be aware of image</td>
</tr>
<tr>
<td>Connect the change process to individual and institutional identity</td>
</tr>
<tr>
<td>Create a culture of risk and help people change belief systems</td>
</tr>
<tr>
<td>Realize that various levels or aspects of the organization need different change models</td>
</tr>
<tr>
<td>Know that strategies for change vary by change initiative</td>
</tr>
<tr>
<td>Consider combining change models or approaches</td>
</tr>
</tbody>
</table>
Transformational Change

Institutions of higher learning face pressure to change. According to Eckel and Kezar (2003), technology, shifting student demographics, finances, and competition force colleges and universities to modify current practices to meet societal needs. Technology expands access to higher education bringing a different group of students into the classroom including adult students and those from rural areas. Institutions of higher learning must address the needs of the increasing number of students coming from diverse social, racial, and ethnic backgrounds (Eckel & Kezar, 2003). Colleges and universities receive limited funds from state and federal governments. At the same times expenses related to student services, administration, and equipment continue to rise. To make up for the decline in government support, institutions of higher learning focus on generating more revenue through an increase in enrollments (Eckel & Kezar, 2003). Institutions compete for students, resources, and faculty. Traditional colleges and universities now compete with for-profit and corporate universities as well as certificate programs which are attracting an increasing number of students. Offering new programs in new formats helps institutions break into markets left previously untapped and increase enrollments (Kezar, 2003). The areas of technology, shifting student demographics, finances, and competition overlap and interact creating new complexities that institutions will not be able to address through piecemeal changes. Instead, institutions need to consider the idea of transformation.

Eckel and Kezar (2003) define transformation as intentional, occurring over time, deep and pervasive, and altering the culture of the institution by changing assumptions, behaviors, processes, and structures. Depth refers to how profoundly the change affects behaviors, structures, policies, beliefs, practices, and ways of thinking. Pervasiveness refers to the extent the
change permeates the institution. The more pervasive the more areas touched by the change. Transformational change efforts allow institutions of higher learning to efficiently and creatively meet changing societal demands while at the same time continue to emphasize the traditional values of teaching, research, and service inherent in higher education (Eckel & Kezar, 2003). Transformational change involves altering long-standing structures and practices in higher education related to curriculum, pedagogy, assessment, departmental structures, budgets, policies, and decision-making arrangements. An organization’s structure and strategy undergo a complete overhaul. Modifications to the structure in turn affect the way employees perceive the organization and their work. This leads to changes in group interactions, language, stakeholder relationships, and types of conversations (Eckel & Kezar, 2003).

Eckel and Kezar (2003) identify five core strategies and 15 supportive strategies critical to transformational change. These strategies are outlined in Table 2 and Table 3 and serve as the conceptual framework for this case study. Collected data was analyzed and evaluated against these strategies to determine the existence of any patterns of transformational change at the institution under review for this case study and to help answer the proposed research questions.

I chose transformational change as the conceptual framework because this type of change helps institutions establish lasting modifications necessary to deal with the fluctuating landscape of higher education. Addressing new technologies, evolving student demographics, shifts in revenue sources, and increasing competition necessitate the reevaluation of established assumptions and beliefs in order to ascertain new ways of operating (Eckel & Kezar, 2003). This study examines the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program. Developing a doctoral program across disciplines to meet the needs of working adults requires individuals to break through the
customary traditions of working within the boundaries of one’s discipline and offering courses in
the traditional format. Through the transformational change process members of the organization
comprise new understanding and viewpoints about institutional activities. Changing the mind-
sets of the organization’s members in turn changes behaviors, commitments, and priorities
(Eckel & Kezar, 2003).

Core Strategies

According to Eckel and Kezar (2003), successful transformational change involves five
core strategies as well as a number of supporting strategies. The core strategies include the
following: senior administrative support, collaborative leadership, flexible vision, faculty/staff
development, and visible action. A description of these strategies as outlined in Eckel and

Senior Administrative Support

For transformational change to occur senior administrators need to support the change
initiative through a variety of formats. This includes providing financial and human resources as
well as establishing administrative structures necessary for change. Leaders must guide the
process and set priorities. They must also continuously and publically announce their
commitment to the change initiative (Eckel & Kezar, 2003).

Collaborative Leadership

Leaders across multiple levels of the organization must work together for
transformational change to occur. Collaborative leadership involves including in the change
process individuals with no formal leadership authority. They must be involved in making key
decisions related to the change initiative. Collaboration can be accomplished through cross-
campus teams, task forces, campus-wide round tables and committees with members
representing the various constituencies on campus. Through participation leaders create campus-wide buy-in (Eckel & Kezar, 2003).

Through collaboration participants develop a common language and shared goals which facilitate communication and understanding. The more people involved in the decision-making process the greater the number of people aware of the change and willing to change their mindset and behavior to be reflective of the change (Eckel & Kezar, 2003).

Trust between all parties is essential for collaboration to work. Leaders need to make everyone feel comfortable enough to voice their ideas and opinions, even comments critical of the change, without the fear of ridicule (Eckel & Kezar, 2003).

**Flexible Vision**

Eckel and Kezar (2003) identify flexible vision as a core strategy necessary for successful transformational change. A flexible vision allows leader to set clear goals while at the same time provide opportunities for new ideas to emerge. The vision must be consistent with a targeted direction while allowing for variations to surface.

For new ideas to originate leaders need to set up multiple avenues for campus feedback giving a variety of people the chance to influence the process. Retreats, surveys, and round table discussions provide these opportunities. By setting broad goals and establishing basic guidelines to follow, leaders can give constituents the freedom to determine the specific goals necessary to carry out the transformational change initiative (Eckel & Kezar, 2003).

**Staff Development**

Because transformational change is extensive, learning new skills and knowledge is vital for success. Through staff development employees gain the knowledge and skills essential to accomplishing the proposed changes. This new knowledge helps organizational members change
their behaviors, which is an important part of instilling transformational change. The format in which staff development opportunities is offered can vary. The key is to provide opportunities (Eckel & Kezar, 2003).

**Visible Action**

Transformational change takes time. For employees to maintain motivation and enthusiasm, leaders need to make everyone aware of the various activities taking place to move the organization toward the intended outcomes. Through visible action leaders build momentum, keep the change initiative at the forefront, and demonstrate continual progress (Eckel & Kezar, 2003). Setting smaller goals throughout the change process and then widely publicizing progress brings constant attention to the change initiative and helps maintain momentum. Visible action may also involve creating a new unit or position, obtaining a grant, or creating a new policy or procedure. Because transformational change takes time, demonstrating some progress in the first year helps solidify the change initiative’s legitimacy (Eckel & Kezar, 2003).

**Table 2**

*Five Core Strategies Critical to Transformational Change (Eckel & Kezar, 2003)*

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior administrative support</td>
<td>Leaders provide resources and set priorities</td>
</tr>
<tr>
<td>Collaborative leadership</td>
<td>Leaders empower others to participate in the decision making process</td>
</tr>
<tr>
<td>Flexible vision</td>
<td>Leaders provide the opportunity for new ideas to emerge</td>
</tr>
<tr>
<td>Staff development</td>
<td>Leaders provide staff with learning opportunities</td>
</tr>
<tr>
<td>Visible action</td>
<td>Leaders set interim goals to be addressed throughout the change process and communicate results campus-wide</td>
</tr>
</tbody>
</table>
Secondary Strategies

In addition to the five core strategies, Eckel and Kezar (2003) identify 15 secondary strategies that, although occur with less frequency, still play an important role in transformational change (Table 3). These supportive strategies overlap with the core strategies and occur concurrently. They build on and reinforce each other.

Table 3

Supporting Transformation Strategies (Eckel & Kezar, 2003)

<table>
<thead>
<tr>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Putting issues in a broad context</td>
</tr>
<tr>
<td>Setting expectations and holding people accountable</td>
</tr>
<tr>
<td>Persuasive and effective communication</td>
</tr>
<tr>
<td>Invited participation</td>
</tr>
<tr>
<td>Opportunities to influence results</td>
</tr>
<tr>
<td>New interactions</td>
</tr>
<tr>
<td>Changes in administrative and governance processes</td>
</tr>
<tr>
<td>Moderated momentum</td>
</tr>
<tr>
<td>Supportive structures</td>
</tr>
<tr>
<td>Financial resources</td>
</tr>
<tr>
<td>Incentives</td>
</tr>
<tr>
<td>Long-term orientation</td>
</tr>
<tr>
<td>Connections and synergy</td>
</tr>
<tr>
<td>External factors</td>
</tr>
<tr>
<td>Outside perspectives</td>
</tr>
</tbody>
</table>

The key to transformation is getting people to think differently. The five core strategies necessary for transformation in combination with the 15 supporting strategies identified by Eckel and Kezar (2003) contribute to getting people to think differently. The specific activities leaders choose when implementing the five core strategies depend on institutional culture. The strategies used to implement change need to reflect the artifacts, values, and assumptions that shape the institution (Eckel & Kezar, 2003).
Conclusion

A changing environment forces institution of higher learning to undergo change in order to remain competitive in a marketing that includes for profit, non-profit, public, and private colleges and universities. The literature review focused on factors specific to higher education that affect organizational change including the purpose of higher education, the curriculum, faculty, students, structure and power, and financial resources. Transformational change, which serves as the conceptual framework for this study, offers institutions a way to address societal demands while at the same time maintain the many traditions and values inherent in higher education (Eckel & Kezar, 2003). The next chapter describes the research methodology used to conduct this dissertation study which was designed to explore the experiences of faculty and administrators responsible for executing change in the form of the development and delivery of an interdisciplinary doctoral program for nurse educators.
CHAPTER 3: RESEARCH METHODOLOGY

The purpose of this chapter is to describe the research method used to administer this qualitative study. The chapter provides a review of the topic under investigation and the research questions to be answered. The chapter then details the rationale behind the chosen topic and research design. A description of the research site and the study participants is provided as well as an outline of the data collection procedures. The chapter next describes the data analysis strategies used to answer the research questions. The chapter concludes with a section on quality considerations and trustworthiness.

Through this qualitative dissertation research study I examined the experiences of nursing and education faculty and administrators responsible for developing and delivering an interdisciplinary doctoral program designed to prepare nurse educators. Culture plays a significant role in the success of interdisciplinary work (Sá, 2008). Minimal research exists on how to achieve cultural change, particularly the culture of specific colleges and departments within a university, in order to support interdisciplinary work. Through my dissertation study, I explored this question in an attempt to add to our understanding of the topic. The study also addressed how the structure of higher education influences curriculum delivery and the way organizational norms, arrangements, and practices influence change related to academic programming. In order to survive, organizations need to change by engaging in new strategic initiatives. Organizations like institutions of higher learning with established behavioral norms and strong traditions often find change difficult (Bercovitz & Feldman, 2008).

This study focused on change at the college and department level. In my current position, I work closely with department chairs and faculty responsible for program administration. It is at this level of the organization that daily practices, beliefs, and values give shape to the
institutional culture. Through this dissertation research study I sought to answer the following questions:

1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?
2. What tactics facilitate development of an interdisciplinary academic program?
3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?

**Topic Selection and Rationale**

Faculty and administrators developing new academic programs within a single department face many challenges. What types of obstacles surface when two different organizational units attempt to develop a degree program designed to traverse the disciplines? Interdisciplinary work defies the long-standing organizational structure of higher education. Individuals participating in interdisciplinary work must learn to navigate the ideas, terms, research methods, and behaviors associated with different disciplines (Holley, 2008). What tactics are employed to initiate interdisciplinary program development? What types of issues must administrators and faculty members confront? Answers to these questions help faculty and administrators responsible for academic program development better understand the relationship between program development and organizational change. Results from the study offer those working in higher education practical solutions for dealing with change; particularly those responsible for initiating change in the form of an interdisciplinary degree program.

Developments in the practice of nursing call for modifications to the preparation of nurse educators. The Institute of Medicine challenges the nursing profession to double the number of nurses holding a doctorate by 2020 (AACN, 2010). According to a survey conducted by the
AACN (2013), 56 percent of full-time vacant faculty positions require applicants to hold an earned doctorate in nursing or a related field, while 32 percent prefer a doctorate. Thirty-two percent of survey respondents indicated a limited pool of applicants prepared at the doctoral level as a critical issue related to nursing faculty recruitment. Authors of a study on professional education in the field of nursing recommend introducing nursing students to an interdisciplinary setting in an effort to help students learn how to work effectively on health care teams and integrate knowledge, skill, and ethical behavior into practice (Gilliss, n.d.). The Carnegie Foundation for the Advancement of Teaching supported a comparative study on the professional education of nurses. Results indicated that graduate nursing programs preparing new faculty generally focus on research and fail to address the educational demands specific to teaching the complex practice of nursing (Gilliss, n.d.). A doctoral program with a curriculum that combines courses designed to advance skills and knowledge in the area of nursing while at the same time introduces future nurse educators to sound teaching methods can help address this shortcoming. Results from this qualitative study provide insight to those interested in developing an interdisciplinary doctoral program aimed at training nurse educators.

**Research Design and Rationale**

Reports on the successful integration of interdisciplinary work typically lack detailed accounts of the experiences of the individuals involved in the process, raising questions about how consensus was attained in order to reach success (Sá, 2008). This qualitative dissertation serves to fill that void by providing detailed descriptions related to the development and sustainability of an interdisciplinary doctoral program. The goal of qualitative research is to understand the situation under study from the participant’s perspective (Hancock & Algozzine,
I chose to implement the case study approach to qualitative research. Creswell (2007) describes a case study as the exploration of an issue through one or more cases within a bounded system. An object of study with boundaries and interrelated parts that form a whole makes up a bounded system. Yin (2009) defines case study as a detailed empirical inquiry that investigates a contemporary phenomenon within its context when the boundaries between the context and the phenomenon lack clear separation. Merriam (1998) lists many advantages to using the case study approach. A case study approach is used to gain an in-depth understanding of a situation from those directly involved and is well suited to answer “why” questions. Because case studies involve real-life situations, results provide detailed holistic accounts of the processes, problems, programs, or phenomenon under examination and can lead to improvements and influence policy and procedures. According to Creswell (2007), a case study is a good approach to use when the case to be studied is clearly identifiable with established boundaries. Studying a single case gives the researcher the opportunity to gather specific detailed information about a particular subject (Merriam, 1998). The descriptive case study research design best suits this study. Descriptive designs attempt to provide complete descriptions of phenomena within their context (Hancock & Algozzine, 2006).

Site Selection and Rationale

The field of nursing continues to expand and transform. A lack of formal interdisciplinary collaborative processes contributes to the inability to consistently provide high quality care (Bender et al., 2013). To address complex issues in health care, nurses must be highly educated and trained to work across disciplines. In an effort to explore nursing doctoral programs that
cross disciplines, I conducted research at a large, public research institution in the South offering an interdisciplinary doctoral program aimed at training nurse educators. The colleges of education and nursing at this institution collaborated to offer the doctor of education (Ed.D.) in instructional leadership for nurse educators. Through coursework focused on research, pedagogy and curricula theory, and opportunities to conduct research, this interdisciplinary program is designed to train nurses to be effective faculty members.

I chose this site for a number of reasons. In case study research, the phenomenon under investigation is studied in its natural context (Hancock & Algozzine, 2006). Qualitative researchers tend to collect data at the site where participants experience the issue under study (Creswell, 2007). Because I work at the site, the location made it economically feasible to conduct interviews on campus as well as collect documents for a document analysis. In addition, I chose the site because of my familiarity with the interdisciplinary program under study. Very few graduate programs specialize in nursing education (Stanton & Packa, 2012).

Subject Selection and Rationale

A case study examines groups of individuals participating in an activity (Creswell, 2007). A goal of this study was to better understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program. I identified subject participants using purposeful sampling. Merriam and associates (2002) point to the importance of choosing a sample from which the most can be learned. Through purposeful sampling, the researcher selects study participants able to provide an informed understanding of the issue under study (Creswell, 2007). The first step in purposeful sampling requires identifying characteristics essential to gathering the type of data necessary to answer the research questions (Merriam, 2002). This research project attempted to understand organizational change as it
relates to the development of an interdisciplinary academic program, specifically a program for
those in the nursing profession. Therefore, I needed a sample consisting of individuals
responsible for developing such a program and those teaching courses in such a program.
Participants for this study included: deans and administrators representing nursing, education,
and central administration, members of the committee responsible for the program’s initial
design, original members of the program’s steering committee, and full-time faculty currently
teaching courses in the program.

I chose to interview deans and a representative from central administration because as the
decision makers they hold the authority to approve and support new degree programs.
Administrators participating in the study included the former provost and education dean who
were involved in the program’s initial planning phase. I also interviewed the current education
and nursing deans. Although not involved in the program’s initial development, the current
education and nursing deans share responsibility for the program’s oversight.

I interviewed the four individuals selected by the education and nursing deans to develop
an initial design concept for an interdisciplinary doctoral degree program for nurse educators. I
also interviewed two original steering committee members from the College of Education and
one from nursing. The committee, made up of equal members from nursing and education,
provides oversight regarding all aspects of the program.

Faculty teaching courses in the program must be open to the idea of merging education
and nursing concepts across the curriculum. Therefore, I chose to interview faculty. To ensure a
representative sample, I interviewed faculty members who teach courses in the various subject
areas that comprise the nurse educator program. These areas include educational research,
curriculum and instruction, educational leadership, and nursing. The sample included full-time
faculty members rather than adjuncts. Full-time employees are immersed in the organizational norms, structures, and practices that affect decision-making processes. Full-time faculty are more likely than adjunct instructors to be familiar with the tactics used to implement change and the challenges experienced during the program development process. As an employee of the institution chosen for this dissertation study who works with those affiliated with the nurse educator program, I was able to reach out to and connect with the subjects identified as potential interviewees.

**Data Collection**

Qualitative researchers collect multiple forms of data in an effort to set standards of rigor (Creswell, 2007). An advantage to case studies is the opportunity to use many different data sources of evidence (Yin, 2009). Conclusions are more likely to be trustworthy and accurate when corroborated through several different data sources. Data for this qualitative study was gathered through interviews and document analysis. Appendix A details information about the data collection methods to be implemented. Data was collected during the spring 2014 semester. In qualitative research, the researcher functions as the main instrument for collecting data (Merriam, 1998). Therefore, I handled all aspects of the data collection process.

Ethical considerations protect the subject participants from harm and provide privacy (Merriam, 1998). To protect human subjects, federal regulations require researchers to obtain informed consent from study participants, avoid deception, and ensure privacy and confidentiality. To conduct the study in an ethical manner, I obtained approval from and fully complied with guidelines set forth by The University of Alabama Institutional Research Board. After receiving permission, I began conducting interviews using the questions outlined in Appendix B. Interviews were digitally recorded and later transcribed. I conducted semi-
structured interviews which, as stated by Merriam (1998), are guided by a list of questions to be explored. Through semi-structured interviews the researcher collects standardized information by asking the same open-ended questions of all participants while at the same time gaining fresh insights during the unstructured portion of the interview. Semi-structured interviews allow interviewees to express themselves from their own perspectives rather than only from the researcher’s perspective (Hancock & Algozzine, 2006).

In addition to interviews, I reviewed and analyzed various documents. The use of documents helps to corroborate and support evidence collected from other sources as well as make inferences (Yin, 2009). Meeting agendas and minutes from the nurse educator steering committee meetings and faculty retreats were studied as well as poster presentation and student orientation agendas. The document analysis included a proposal detailing the dissertation process along with a list of recommendations regarding the dissertation process provided by those attending a dissertation team meeting. I examined notes written by a nursing administrator who served on the initial committee charged with designing the nurse educator program, notes written by the program’s recruiter, and notes collected from a task force established to review the comprehensive exam process. Emails to and from nursing administrators responsible for the program’s initial development, a department head from the College of Education, the College of Education financial director, and the program’s recruiter were also assessed. I evaluated multiple versions of the proposed program of study in addition to programs of study for specific cohorts. I studied data collected from surveys administered to current students regarding program satisfaction and data collected from surveys administered to faculty after attending program retreats. Policies and procedures I reviewed pertained to student advising, criteria for appointment and re-appointment to graduate faculty, admission requirements, and
comprehensive exams. I analyzed recruiting materials shared with prospective students and a recruiting plan. A proposal outlining recommended program details and a formal suggestion to make a change to the program were also evaluated. Letters written to the provost and the education dean requesting joint appointment for specified faculty between the colleges of nursing and education were examined. The document analysis also involved materials posted online for current and prospective students as well as faculty, a student advisement schedule, the job description for the position of program recruiter, a program budget, course syllabi, advisor assignments, dissertation committee team member names, and a dissertation committee form to be completed by students. Information gathered through the document analysis was categorized according to the categories outlined in Appendix C. The documents contribute to the study by providing useful background information. Insights gained from the documents serve to corroborate or contradict findings obtained through interviews. Including documents as a data source adds to the rigor of the study and helps substantiate findings.

Sampling conducted out of convenience may come at the expense of credibility (Miles & Huberman, 1994). Creswell (2007) speaks to the dangers of collecting data in a researcher’s place of work or community. Power differentials between the researcher and participants may affect results. Researchers may put their jobs in jeopardy if they uncover negative information or disclose private information that negatively impacts the organization. Collecting information from multiple perspectives and using multiple validation strategies helping the researcher conduct a sound study.

**Data Analysis**

Creswell (2007) explains the process of data analysis in qualitative research as the reduction of data into meaningful segments which are then named, categorizing into themes, and
then compared across graphs, tables, or charts. Data collection and data analysis often occur simultaneously. Jointly collecting and analyzing data is an essential part of qualitative research. The data can be unfocused, repetitious, and overwhelming without ongoing analysis (Merriam, 1998). Data analysis begins by taking a unit of datum, such as a meaningful word or phrase, and comparing it to another unit of datum (Merriam, 2002). Through continuous comparisons I categorized and subcategorized relevant data into groupings that shared a commonality. The categories reflect the purpose of the research and form the answers to the research questions (Merriam, 1998). Categories were refined to ensure that a unit of data fits into only one category and that categories are conceptually congruent. Conceptually congruent categories make sense together, with the same level of abstraction characterizing all categories at the same level (Merriam, 1998). The data are represented through a narrative that provides a comprehensive picture of the case including the setting and is accompanied by charts detailing common themes. Displaying data in a chart presents the information systematically allowing the reader to draw conclusions and take action (Miles & Huberman, 1994).

Qualitative researchers, like quantitative researchers, need to consider issues of validity and reliability. The ways in which data are collected, analyzed, interpreted, and presented contribute to the level of trust given to study results (Merriam, 1998). Creswell (2007) identifies eight validation strategies to address quality considerations, rigor, validity, and the issue of trustworthiness. I chose to validate data by clarifying researcher bias and providing a rich, thick description of the study. Clarifying research bias helps the reader understand the researcher’s position and assumptions that impact results (Creswell, 2007). To enhance a study’s external validity or generalizability, Merriam (1998) suggests providing a rich, thick description that allows readers to determine if their situations mimic the research situation and, therefore, the
extent of transferability. A thick description includes information on the context of the study, research methods used, and examples of raw data (Houghton, Casey, Shaw, & Murphy, 2013). I include a detailed account of the data collection process, the data analysis process, and study results in order to enhance the study’s generalizability.

Merriam (1998) defines reliability in qualitative research as obtaining results consistent with the data collected. The use of triangulation and an audit trail strengthen reliability. Triangulation confirms data and ensures completeness by verifying findings through multiple sources (Houghton et al., 2013). The multiple sources of data collected in this study include interviews representing several perspectives including administrators and faculty from two different colleges and an administrator from the central office, and a variety of documents related to the program. An audit trail is formed through a thorough explanation of the method of the study, how the sample was chosen, description of the data collection and analysis process, the way in which categories were derived, and how validity and reliability were addressed (Merriam, 1998, 2002). Yin (2009) proposes maintaining a chain of evidence in order to increase reliability. This chain of evidence means that the reader should be able to trace the process that led to the conclusions to ensure that the evidence presented is based on evidence collected. This process also enhances validity and the overall quality of the case study. To demonstrate a chain of evidence, I provide a description of the documents reviewed and the interviews conducted during the data collection phase of the study.

The five core strategies and 15 supportive strategies critical to transformational change identified by Eckel and Kezar (2003) served as the conceptual framework for this case study. Collected data was analyzed and evaluated against these strategies to determine the existence of any patterns of transformational change at the institution under review for this case study and to
help answer the proposed research questions. Table 4 lists themes generated from the data analysis.

The model of trustworthiness addresses ways to build trust in qualitative research (Thomas & Magilvy, 2011). The model consists of four components of trust which include credibility, transferability, dependability, and confirmability. Credibility allows readers to recognize that the experiences explained in the study reflect those of the participants. Transferability helps readers determine applicability of the findings to other settings. Dependability in qualitative studies is similar to the concept of reliability in quantitative research. Confirmability is achieved when credibility, transferability, and dependability have all been met (Thomas & Magilvy, 2011). The data collection and analysis methods applied in this study served to develop trust.

**Researcher Positionality and Trustworthiness**

The biases of the researcher, who served as the main data collection instrument in this qualitative study, influence the interpretation of the data. The researcher’s background, history, and prior knowledge cannot be separated from the study’s final results (Creswell, 2007). In order to help the reader understand how the researcher interpreted the data, researchers should explain their position on the topic under study and what values and assumptions might affect data collection and analysis (Merriam, 2002). Personal interest influenced the choice I made to study the interdisciplinary doctoral program involving the colleges of education and nursing. I have spent the last seven years working at the target institution and five years working directly with the program and a number of nursing and education faculty and administrators affiliated with the program. My interests lie in the areas of academic programming and organizational change. This
study gave me the opportunity to delve into those interests by considering both the development of an academic program and the notion of interdisciplinarity as a change strategy.

Merriam (1998) describes three orientations to educational research. These orientations guide the researcher when making decisions about the nature of reality, the purpose of conducting research, and the type of knowledge to be produced by the researcher. Researchers influenced by the positivist orientation consider knowledge to be gained through scientific and experiential research, and therefore objective and quantifiable. Reality is stable, observable and measurable. Knowledge generated through the second orientation, critical research, serves as a critique of power, privilege and oppression in a social institution. Of the three orientations, the interpretative research orientation best aligns with this particular study in which I interviewed 18 individuals in an attempt to understand the experiences of faculty and administrators involved in the development and delivery of an interdisciplinary doctoral degree program. Interpretive research focuses on understanding the meaning of a process or experience. Researchers guided by the interpretive orientation acknowledge the existence of multiple realities constructed by individuals (Merriam, 1998).

Van Maanen’s (2011) realist style of writing influenced the way in which I chose to present the data analysis and findings and chapter’s four and five. Van Maanen (1988) describes realist accounts as matter-of-fact explanations of a studied culture. The realist writing style focuses on what the members of the group under study say and do with the author absent from the narrative. Readers assume that the information presented holds true for anyone observing that same situation. The realist writing style includes extensive direct quotes from the subjects under study that convey to the reader the information’s authenticity. The data are depicted in a no-
nonsense approach giving the researcher the final word regarding interpretation and presentation (Van Maanen, 2011).

**Conclusion**

This study was designed with the intention of advancing the understanding of the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program as well as examining tactics used to facilitate the development and delivery of an interdisciplinary academic program. The case study approach chosen for this study provides the opportunity to gain an in-depth understanding of the situation under investigation. Interviews and document analysis supply the data for this study. Through the categorizing and subcategorizing of data into groupings that share a commonality, as detailed in the next chapter, I attempt to answer the research questions. A description of the researcher’s position on the topic under study as well as the orientation used to guide decisions made throughout the process address issues of quality and trust.

The findings from this study provide information that can be used by those implementing an interdisciplinary degree program as well as those starting a nurse educator program. I believe that employing interdisciplinary efforts provides an avenue to deal with issues faced by institutions of higher learning, issues like decreased state and federal funding and the need to solve complicated societal problems. With change an inevitable part of any organization, my objective for this study was to offer insights to ease this sometimes difficult process.
CHAPTER 4:
RESULTS

The demand exists for nurse educators prepared at the doctoral level. “As patient needs and care environments have become more complex, nurses need to attain requisite competencies to deliver high-quality care” (Institute of Medicine (IOM), 2010, p. 2). The IOM recommends nurses trained at the doctoral level to teach future nurses and conduct research. According to the American Association of Colleges and Nursing annual report (2012), in 2011 four-year colleges and universities turned away more than 75,000 qualified baccalaureate and graduate nursing program applicants due to diminishing resources and a shortage of faculty. With an average age of 61, the impending retirement of full-time nursing professors exacerbates the current shortage. The purpose of this qualitative study is to understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program designed to prepare nurse educators, as well as the experiences of nursing and education faculty who teach courses in an interdisciplinary doctoral program. The study also focuses on identifying tactics that facilitate change as well as challenges faced by faculty and administrators attempting to implement change at the college and departmental levels.

This chapter presents an examination of the data collected through a document review and interviews conducted over a two month period with faculty and administrators responsible for the development and delivery of an interdisciplinary doctoral program offered at a large public research institution in the South. The data represent the perceptions of the research participants at the time of the interview regarding their experiences developing and implementing an interdisciplinary doctoral program.
Eighteen of the 20 individuals initially identified as potential research subjects agreed to participate in the study. Seven of the individuals interviewed served on the steering committee responsible for the program’s oversight. In addition to serving on the steering committee, four of those individuals assumed responsibility for the program’s initial design and development. Four of the research subjects currently hold or at the time of the program’s development held an administrative position with the university. Seven of the individuals interviewed were selected because they teach at least one course in the program. Ten of the 18 research participants represent education, seven represent nursing, and one represents central administration. Appendix D lists pseudonyms and titles for those participating in the study. Through data analysis I identified specific themes to answer the research questions presented in chapter one:

1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?
2. What tactics facilitate development of an interdisciplinary academic program?
3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?

The Need for a Doctoral Program

The National League for Nursing (2002) identified the need for well-trained nurse educators to prepare a new corps of nurses capable of providing quality care for patients with a variety of complex needs in a health care environment undergoing significant reform (NLN, 2011). As identified through the data analysis, in an effort to meet that need and address the shortage of both nurses and nurse educators, administrators in the College of Nursing at a public, four-year research institution in the South began exploring the idea of offering a doctoral program specifically for nurse educators. According to Dr. Smith, the former provost, the
nursing dean at the time was interested in growing graduate nursing programs. The former nursing dean felt that nursing faculty working in community colleges and universities would benefit from this type of program designed to enhance and strengthen the role of nurse educators. The nursing administrator support team comprised of the dean and other top administrators responsible for graduate programs often discussed the need for a doctoral program. One of the nursing administrators responsible for the program’s initial design, Dr. Taylor, said,

I think we started talking about the fact that, number one, we needed to somehow increase the pool of faculty that are available. We were really cognizant of the aging faculty not only in our own school, but throughout nursing. We were very cognizant of the fact that a lot of students had to be turned away from schools of nursing because there just weren’t enough faculty to accommodate them.

Dr. Taylor also mentioned the need for a program with a focus on education. Institutions often hire master-level prepared instructors and those holding a PhD in nursing or the doctor of nursing practice (DNP). However, those degree programs typically lack courses on education. Graduates of those programs are content experts but lack the knowledge needed to develop a course, design educational activities, or develop a curriculum. Dr. Anderson, another nursing administrator who worked on the initial planning committee, said that she and a fellow nursing administrator often discussed the need for nurse educators to have an educational background in things like curriculum development and learning theories. Dr. Anderson stated, “In nursing education we tend to teach nursing but not how to teach nursing.” A nursing faculty member teaching courses in the program, Dr. Thompson, explained that nursing faculty must not only understand the clinical concepts taught to future nurses, they must understand the best way to teach those concepts.

A Partnership Forms

According to participant accounts, a state health conference provided the opportunity for the deans of the colleges of education and nursing to meet and begin plans for an
interdisciplinary doctoral program designed specifically for nurse educators. The former dean of education, Dr. Miller, spoke with pride as he explained his involvement in the planning of a state health conference where conference participants assessed the state’s health needs. A discussion on the “…shortage of nurse educators was the biggest single thing that came out of that conference.” Dr. Miller reached out to the former nursing dean and suggested the two colleges partner together to address this need. An interdisciplinary program designed to train nurse educators would help alleviate the shortage of nurse educators within the state and across the nation as well as give the College of Nursing the opportunity to offer a doctoral degree program.

The quickest and easiest way for the College of Nursing to offer such a program without involving the state’s coordinating board for higher education involved working across disciplines and partnering with the College of Education to offer a modified version of an existing doctoral program. A partnership with education would allow nursing to offer a collaborative program based on an existing program of study modified to meet the needs of nurse educators. An interdisciplinary program between education and nursing seemed like a perfect marriage blending educational and nursing pedagogies and concepts. Dr. Taylor, a nursing administrator serving on the committee assigned to determine the program’s initial design, mentioned time as another factor influencing the decision to enter into a partnership with education and modify an existing degree program.

The second thing is time and the amount of time it would take to develop a whole curriculum and set up a whole program. Probably we would be measuring in years, whereas by cooperating and taking an existing program and modifying it to meet our needs, there was a shorter timeframe involved. We thought it was more expeditious in terms of perhaps some of the backlash we might get from the rest of the schools in the state, and that it might be resource-wise and curriculum-wise, and time-wise, it would be smart to use what we had and enhance it rather than trying to start from ground zero.
Choosing the right partner to collaborate with and design an interdisciplinary program is an important first step. The partnership between nursing and education worked for a number of reasons. Dr. Thompson, a nursing faculty member who teaches in the program said, “Teaching is very central to the nursing role.” Partnering with education to offer a degree program gives nurses the opportunity to strengthen their nursing background with an education background.

The field of education is interdisciplinary by nature making the idea of partnering with another discipline acceptable and appropriate. The former dean of the College of Education, Dr. Miller, said that many education majors enroll in courses external to education. Students majoring in elementary, special, and secondary education study the content they will teach by enrolling in classes housed in other colleges and departments. Colleges across university campuses tend to function in silos, but colleges of education cross disciplines in order to give students the training they need to deliver content using effective teaching methods. Dr. Lewis, an education faculty member on the steering committee, confirmed Dr. Miller’s comments. He stated that although some other disciplines may adhere to a different belief, the culture within the College of Education supports collaboration across the disciplines. “One cannot be a secondary education teacher without having science courses so we have to have collaboration. One cannot be a music educator without collaboration with music.”

The instructional leadership group within the College of Education seemed like the right partner for the College of Nursing. Rather than focusing on one particular body of knowledge, the social cultural studies faculty members that help make-up the instructional leadership group specialize in areas of study that are interdisciplinary in nature. They discuss social problems, race, class, gender, and the politics of education, topics that touch all disciplines including nursing. An education faculty member teaching in the program, Dr. Flynn, an education faculty
member teaching in the program, was not at all surprised that the instructional leadership group agreed to work with nursing. He described that group of faculty as “…a bunch of curriculum theorists and historians, sociologists of education, and others with a broad view of the world.”

Like education, the field of nursing lends itself to the concept of interdisciplinarity. Dr. Thompson, a nursing faculty member teaching in the program, described a major push in health care for more interdisciplinary collaboration. “We're trying to look at IPE (interprofessional education) courses where we're pulling in physicians and nutritionists and social work. So we're beginning to offer some courses that are open to other disciplines.” Dr. Hall, a nursing faculty member serving on the program’s steering committee, explained the necessity of partnering with others to deal with the complexity of health care. Because no one knows all the answers, partnering allows members of a patient’s health care team to contribute by providing input related to their area of expertise. This improves patient outcomes. Partnering with education, whose expertise lies in the area of pedagogy, to offer an interdisciplinary doctoral program gives students a rich graduate experience and prepares them to be effective educators and researchers.

**Major Themes of the Study**

An analysis of the data generated six major themes listed below and in Table 4.

1. The role of equality in developing an interdisciplinary graduate degree program
2. The role of collaboration in developing an interdisciplinary graduate degree program
3. The role of communication in developing an interdisciplinary graduate degree program
4. The effects of discipline-specific and institutional norms, practices, and structures in developing an interdisciplinary graduate degree program
5. The role of leadership in developing an interdisciplinary graduate degree program
6. The role of faculty buy-in in developing an interdisciplinary graduate degree program


Table 4

Themes Generated Through Data Analysis

<table>
<thead>
<tr>
<th>Themes</th>
<th>Key Findings</th>
</tr>
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<tbody>
<tr>
<td>Equality</td>
<td>• Nursing faculty needed to feel like equal partners in the development and delivery of an interdisciplinary doctoral degree program housed in the College of Education but designed for nurse educators.</td>
</tr>
<tr>
<td></td>
<td>• Nursing and education faculty and administrators shared responsibility for many aspects of the program (i.e., equal representation on the program’s steering committee; input into decisions related to comprehensive exams, admissions, the dissertation process).</td>
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<tr>
<td></td>
<td>• A mutual respect developed between faculty and administrators across the two disciplines for the expertise brought to the program by members of each discipline.</td>
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<tr>
<td>Collaboration</td>
<td>• Faculty and administrators actively worked together to make decisions.</td>
</tr>
<tr>
<td></td>
<td>• Planned opportunities for collaboration.</td>
</tr>
<tr>
<td>Communication</td>
<td>• Opportunities to communicate created opportunities to build relationships.</td>
</tr>
<tr>
<td></td>
<td>• Opportunities to communicate created opportunities to collaborate.</td>
</tr>
<tr>
<td>Norms and assumptions</td>
<td>• Discipline specific and institutional norms and assumptions affected efforts to implement change.</td>
</tr>
<tr>
<td></td>
<td>• Faculty and administrators from different disciplines attempting to implement change must be flexible and willing to compromise when working together.</td>
</tr>
<tr>
<td>Supportive leadership</td>
<td>• Leaders provided resources and momentum to implement change.</td>
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<td></td>
<td>• Leadership can be formal or informal.</td>
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<tr>
<td>Faculty buy-in</td>
<td>• Faculty involvement from the beginning helps administrators secure the support they need to implement change.</td>
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The Role of Equality in Developing an Interdisciplinary Graduate Degree Program

Administrators and faculty members responsible for developing and offering an interdisciplinary doctoral program face the challenge of creating a partnership that allows
participants to contribute to the decision-making process. The data revealed the need to feel like an equal partner in all aspects of program development and delivery in order to create a balance of power. This was particularly true for individuals in the College of Nursing. The degree program was housed in the College of Education, and at the time of development the College of Nursing did not offer any doctoral programs. Dr. Williams, an education faculty member responsible for the program’s initial development, talked about the commitment to collaborate as equals in an effort to prevent one discipline from considering themselves superior to the other. She said that because nursing faculty lacked experience offering a doctoral program, they were concerned that education faculty would tell nursing faculty how to run the program. Respect for the expertise that each discipline contributes to the program helps strengthen the partnership.

**Respect**

Documents related to the interdisciplinary program and its development revealed the importance placed by nursing faculty and administrators on creating a partnership with education in which education respected and valued the expertise of the nursing faculty. For nursing faculty and administrators, a partnership involved more than just teaching courses in the program. Nursing faculty and administrators viewed the partnership with education as an opportunity to participate in and provide input into all aspects of the program. For example, notes reviewed as a part of the document analysis indicated nursing’s desire to be included in the advising process. The College of Nursing proposed assigning each student a nursing faculty advisor. Because the majority of nursing courses required for the program are offered asynchronously online while the education courses meet on campus one weekend each month, the advisor role would give nursing faculty additional time to build relationships with students. Students ought to consider education and nursing faculty as equal contributors to the program and feel comfortable reaching out to
faculty from either discipline. After all, although the College of Education houses the degree program, the idea for a joint program evolved out of the College of Nursing. They recruited students into the program and planned the student orientations. However, nursing faculty and administrators felt that the program belonged to the College of Education with minimal involvement and decision-making responsibilities solicited from nursing. For example, education faculty indicated that per graduate school policies only faculty members from the department housing the degree program would be eligible to serve as dissertation chairs. This meant that 14 nursing faculty involved with the joint program would not be able to serve as dissertation chairs. To nursing faculty this implied that only education faculty met the qualifications to chair dissertation committees.

Both nursing and education faculty members mentioned the importance of mutual respect in facilitating a successful interdisciplinary program. The nursing dean, Dr. Johnson, said, “I don’t know if this is really an obstacle or a hindrance but I think that maybe overtime you have to develop an understanding and a respect for the priorities and the values of the alternative discipline.” A nursing faculty member teaching in the program, Dr. Thompson, talked about valuing the expertise of others.

I think what makes it successful is that mutual respect and understanding that each does come with their own specific piece that the other one doesn't truly have. We value each other. Shared values and shared goals. I think education really does see that they're needed in the nursing faculty development. That's not something that they could do on their own. It's just a totally different type of instruction.

Sometimes in academic settings egos get in the way. People want to make sure they get full credit and they're seen as the most important. The amazing thing, watching this group, is that everyone comes as peers. They blend, and it works well. Egos have stayed. We're much like a family, rather than competitors. It makes it good. We recognize the strengths of both. I think egos and recognition could have easily gotten in the way.
A number of education faculty members teaching in the program echoed the sentiments of the nursing faculty regarding the importance of mutual respect when developing and implementing an interdisciplinary degree program. Dr. Gray, an education faculty member teaching in the program said that she had to familiarize herself with nursing journals and read up on topics related to the field of nursing. When assisting students through the dissertation process she refrains from making judgments on the parts of the literature and research that are specific to the field of nursing. “We're always very clear about respecting each other. That's really important, respecting what the other knows and not putting them down even though they have a very different approach.” Nursing faculty appreciated the expertise education faculty brought to the program, and education faculty appreciated nursing faculty sharing ideas on ways to tailor education courses to nurse educators. Dr. Harris, an education faculty member teaching in the program commented on the mutual respect shared between the two disciplines. Education faculty trusted nursing faculty and nursing faculty trusted education faculty to choose appropriate coursework. “I think there was a mutual respect for the academic expertise.” Dr. Gray talked about the respect and encouragement she received from nursing faculty. They appreciated her input as an authority in her field and often asked for her input.

The data collected for this study revealed the importance of mutual respect and a sense of equality in creating and sustaining an interdisciplinary doctoral degree program. When individuals consider themselves as equal partners in an endeavor and feel their opinions matter, they remain open to the idea of collaboration.

Ownership

Nursing faculty and administrators needed to feel a sense of ownership in the program. This sense of ownership required more than participation in the development and delivery of the
program. A document titled Interdisciplinary EdD Program with Nurse Educator Specialization written sometime after admission of the first cohort of students into the program identified specific areas in need of attention in order to further develop the program to best meet the needs of the students and faculty. The document included the following statement regarding ownership of the program:

The overriding concern is that the program is called interdisciplinary, but the operation of the program does not seem interdisciplinary. The perception is that the program belongs to education and nursing faculty are just teaching a few courses in it.

An email exchange between a nursing administrator and an education administrator sent after a new student orientation held one fall described feelings of disparity felt by nursing faculty regarding their involvement in the program. During the orientation an education faculty member spoke about the university structure and how the interdisciplinary program fit into the structure. Little was mentioned regarding nursing and their contribution to the development and implementation of the program.

…if she spoke on the origin and development of the program she should have talked about this as the 50-50 shared project that it is. Clearly it is a College of Education program, but without the generation of the idea and the work of the nursing faculty and administration the program would not exist.

The program’s curriculum provided another area in which nursing faculty and administrators participating in the study expressed misgivings regarding program ownership and an equal partnership between the two colleges. Both groups attempted to fill the program of study with coursework they believed necessary for the preparation of nursing faculty members. Results from a student satisfaction survey included the following comment: “It seems that because it is a joint effort between nursing and education, both want to get the most they can into the program.” The curriculum for this interdisciplinary doctoral program is based on the existing doctoral program in instructional leadership offered through the College of Education. Only five
of the 15 courses are designated by the NUR prefix. However, the sequence of courses ensures that students enroll in one nursing course each semester with the exception of the summer semester. In this way students are taught by both nursing and education faculty during the same semester on a regular basis. Emails from January 2009, two years after the program’s start, revealed nursing’s displeasure with the fact that students enrolling in a qualitative research course offered through education would not be required to enroll in the nursing research course in which students develop a prospectus in preparation for the dissertation. Dr. Harris, an education faculty member teaching in the program talked about struggles related to curriculum planning when developing a joint program of study:

I got the sense, too, that there was some struggle about how many of the course hours would be for nursing, how many would be for education because it is an EdD so it had to follow, I think, first it had to follow our colleges and our colleges’ expectations for the award of that degree, but then also accommodating that need for content on the nursing side was challenging. Who’s going to teach the research courses?

In this particular study, research participants perceived a struggle for ownership of the interdisciplinary program. According to the data, sharing responsibilities for all aspects of the program seemed to help solidify a feeling of joint ownership.

Sharing Responsibilities

Faculty and administrators made a concerted effort to ensure both education and nursing faculty played a role in making decisions related to program development and delivery. The former education dean, Dr. Miller, indicated that he and the former nursing dean decided from the beginning to share all aspects of the program fifty-fifty. Responsibility for leading the steering committee, the group charged with the program’s continued oversight, would alternate between an education and a nursing faculty member. Notes reviewed during the data collection phase of the study explained that the steering committee would consist of a coordinator and an associate coordinator with a representative from nursing serving in one role and a representative
from education serving in the other role. The coordinator and associate coordinator would alternate each year giving each discipline the opportunity to serve in the leadership role. In addition to the coordinator positions, the committee would consist of two members at large from nursing and two from education. The committee currently functions under the leadership of co-leaders representing each discipline. When asked about tactics that work to successfully facilitate an interdisciplinary program, Dr. Harris, an education faculty member teaching in the program said, “There was always an education person and a nursing person at the very top co-directing and then this representation from both in a steering committee, not having one hold more rank programmatically, for lack of a better term.”

The location of events and meetings alternates between various sites to avoid perceptions of bias toward one discipline over another. These events and meetings include steering committee meetings, faculty retreats, student orientations, poster presentations, and other student oriented events such as the institution sponsored nurse education conference and class meetings. Students travel to campus one weekend a month to attend class, the majority of which are education courses. Those classes are held in the education building which is within walking distance to campus libraries and restaurants. When a nursing course is offered on campus, classes are scheduled in the nursing building. Although the nursing building is located on the outer perimeter of the campus forcing students to find transportation to visit the library or go off campus to eat, the decision was made to use classrooms in both facilities rather than choose one exclusively. An analysis of the documents showed that the locations of faculty meetings and events varied and even included neutral territory. A comment made on the survey distributed after a faculty retreat read ‘I think switching up between the College of Education building and the nursing building is a fair thing.’ Speaking about the faculty retreats held for those affiliated
with the program, Dr. Davis, a nursing faculty member teaching in the program said, “We met in neutral territory so that when we were together, that's all we focused on.”

The two colleges shared responsibilities for other aspects of the program as well including admissions, comprehensive exams, and dissertation research. Dr. Taylor, a nursing administrator responsible for the program’s initial development, reinforced the importance placed on sharing responsibilities. “Everything that happens is always a blended combo.” The admissions committee consists of representatives from both education and nursing. Application materials and admission packets are housed in both colleges with the originals maintained in the College of Education and copies shared with appropriate nursing personnel. Both colleges send acceptance letters to program applicants. Faculty members from both colleges work together to develop questions for the comprehensive exam. The comprehensive exam policy explains that the interdisciplinary steering committee establishes faculty teams to evaluate comprehensive examination results. The two colleges share responsibility for working with students during the dissertation process. Five member dissertation teams consist of faculty in the areas of instructional leadership, nursing, and research. Two of those team members represent education and two represent nursing. Students may select one team member outside of nursing and education. The faculty member chosen for his or her expertise in research may be from either nursing or education signifying that research expertise is not limited to one college.

Expertise

During interviews subject participants representing nursing faculty and administrators validated their ability to prepare nurse educators at the doctoral level despite a lack of formal training in nurse education or curriculum design for a majority of the nursing faculty. Dr. Hall, a nursing faculty member on the program’s steering committee discussed the nursing faculty’s
ability to teach in a program designed to prepare nurse educators. The faculty’s experience as nurse educators made up for their lack of formal training in education. “What we didn't get formally we had through experience, and there were a number of us who actually had some formal training in education and took some formal courses at the doctoral level.” Dr. Davis, a nursing faculty member teaching in the program, explained that many nursing faculty members are known nationally with connections to nurse educators across the country. Therefore, they are attune to what is happening in the field of nurse education both nationally and internationally and hold definite opinions about the needs of nurse educators.

**The Role of Collaboration in Developing an Interdisciplinary Graduate Degree Program**

“A lot of collaboration, I think that’s probably the key.”  
(Dr. Lewis, education faculty member serving on program’s steering committee)

To develop and maintain an interdisciplinary program, faculty and administrators from both disciplines must be actively engaged in making decisions together regarding various aspects of the program. In addition, leaders at all levels must work together to make change happen. From the very beginning, collaboration played a key role in the development of the interdisciplinary doctoral degree program.

Collaboration played a major role in the decision made by nursing administrators to join forces with faculty and administrators from the area of instructional leadership within the College of Education. Dr. Clark, a steering committee member representing education, explained that faculty members from the higher education administration program believed they were well positioned to help prepare future nursing faculty members. However, the discussions with nursing failed to produce any agreements. Dr. Miller, the education dean at the time, requested assistance from a department chair in an effort to find another unit with the department willing to
develop and implement an interdisciplinary doctoral program with the College of Nursing. Dr. Miller explained that,

With us, we would have been the ones to do the degree, and we actually looked at several degrees to offer, and the specific degree that was chosen was chosen in consultation, because it seemed to be the one that was both flexible and met the needs, and had a name that fit well with what nursing faculty would need.

Nursing planned to develop and incorporate five new courses specific to nurse education into the program of study. The instructional leadership unit within the College of Education agreed to partner with the College of Nursing and discuss ways to tailor an existing doctoral degree program to meet the needs of future nurse educators and include nursing courses in the program of study.

The interviews and document analysis yielded many examples of collaborative efforts between the two disciplines. The initial group responsible for developing the program consisted of two individuals representing nursing and two representing education. Dr. Taylor, a nursing faculty member who worked on the program’s initial design, explained that together they considered the types of courses needed to give future nurse educators the skills necessary to be effective faculty members and developed a curriculum based on the current inventory of courses.

When developing a degree program within a single discipline, faculty and administrators simply rely on existing policies and procedures related to matters such as recruitment, admissions, comprehensive exams, student advising, and course and program evaluations. But whose policies and procedures take precedent when two disciplines join together to offer a degree program? Who takes responsibility for various aspects of the program? Nursing and education faculty and administrators worked together to develop a new set of policies and procedures pertaining to the joint degree program in an effort to address these concerns.
The document analysis disclosed additional issues related to the development and delivery of an interdisciplinary doctoral degree program that nursing and education faculty and administrators addressed. They discussed the creation of a program specific student handbook, the development of joint policies to be placed in every syllabus covering absences and illnesses/deaths in the family, and processes to be considered to address student concerns. A nursing faculty member teaching in the program, Dr. Carter, mentioned additional questions to be considered when offering an interdisciplinary program. Which academic unit receives credit for offering the program? How are students categorized? Are they nursing students or education students? These questions are unnecessary when a single discipline is responsible for delivering a degree program.

Nursing and education faculty and administrators participated in retreats designed to bring the members of the two disciplines together and provide an opportunity to collaborate. Study participants who attended the retreats discussed the value of these meetings. During the initial retreat which took place prior to the program’s launch, faculty discussed the content and emphasis of each course. Dr. Hall, a steering committee member from the College of Nursing, noted that faculty members at the retreat were actively involved in building course content, not just the syllabus. This provided the opportunity for the group at large to identify and focus on needs and problems. A nursing administrator responsible for the program’s initial development, Dr. Anderson, discussed the type of collaboration that took place during the initial retreat.

We did a lot of talking about what courses were going to be included in the program. It was never an argument back and forth, but it was talking about, okay. What do we do in Course A, and what do we do in Course B? Well, if Course A is in nursing and Course B is in education, well, we really are doing some of the same things. Could we get by with Course C instead of Course A and B?

It was more of a negotiation about what we need, where does it need to be in the curriculum? Should A come before B or does B really need to precede A? Those kinds of
things were done in those combined faculty meetings that we had where we broke up into small groups basically and then each group would come back and say, Well, now what we talked about was such and such, and what we think might be the way to go is so and so.

Retreats scheduled after the program’s launch gave faculty an opportunity to discuss program issues and concerns as well as review and make recommendations related to the program of study. Dr. Hall, a nursing faculty member serving on the steering committee, explained that the retreats gave faculty time to revisit the curriculum and work together on courses which included looking at assignments. Faculty retreat agendas indicate that nursing and education faculty spent time reviewing syllabi from each course, sequencing courses within the curriculum, determining the appropriateness of each course, and identifying any duplication of content across courses. The retreats helped shape the coursework. Dr. Williams, one of the education faculty members who worked with the original group to design the program said,

We would have at least one person from the College of Nursing and one person from the College of Education to say, okay. What needs to be in a course on this and what needs to be in a course on this?

Each faculty member possesses an area of expertise. The retreats provided a way to combine that expertise and develop something unique as well as gain a sense of the types of activities planned in other courses. Through discussion faculty discovered commonalities across the courses and developed projects that built upon knowledge gained through previous coursework. At the retreats faculty talked about the types of assignments planned in each course which prevented a duplication of work for the students as well as an overload of assignments. The retreats helped faculty see the program as a whole rather than disparate elements. Dr. Lewis, a steering committee member representing education, explained that through collaborative efforts, courses become intertwined and build on each other. Courses are not simply offered independently of each other.
Retreats continued even after the program’s launch. Two years after the program launched, faculty from both disciplines gathered to consider how each course helps nurses become better educators whether or not the curriculum includes the right courses, and the extent in which the courses prepare students to conduct research in preparation for the dissertation. Faculty members discussed the sequencing and pairing of courses offered each semester and made changes to accommodate student and faculty feedback. They also re-evaluated the comprehensive exam procedure.

The steering committee, whose members oversee the program, is another prime example of collaboration between faculty members representing two disciplines. A strong relationship exists among the steering committee members. The committee consists of four education faculty members and four nursing faculty members and, according to one of the members, is the most cooperative part of the program. They meet monthly spending two to three hours together reviewing various aspects of the program, talking about students, and discussing any pressing issues.

The development of the comprehensive exam process offered another chance for faculty from the two disciplines to collaborate. While faculty members from the College of Education were experienced with the administration of comprehensive exams required for doctoral programs, nursing faculty found this to be a new process. Yet the education faculty actively worked with nursing faculty to suggest methods for implementing the comprehensive exam for the first cohort of students. Minutes from a meeting in 2008 reveal a comprehensive examination task force made up of three nursing faculty members and two education faculty members. The committee proposed the establishment of teams of faculty from both disciplines to develop a comprehensive exam topic. In 2010 both nursing and education faculty members generated
comprehensive exam topic ideas, with three suggestions coming from nursing and two from education, to be presented to the joint member steering committee for approval. Both education and nursing faculty evaluate the written and oral components of the comprehensive exam. Dr. Lewis, an education faculty member serving on the steering committee stated, “Again, it's a collaboration throughout, from the beginning of the questions that are generated to the evaluation at the end.”

Some nursing and education faculty members have collaborated outside of the program partnering together on research, publications, and grant proposals. Dr. Flynn, an education faculty member teaching a course in the program said, “Those research collaborations have been a direct result from just putting us into contact with one another.” Dr. Clark, an education faculty member serving on the steering committee said, “The one good thing is that people from different faculties have gotten involved in research projects together. I co-authored an article with some nursing faculty.” An item on the January 2012 faculty retreat agenda validated the efforts made by faculty to collaborate on projects that extend beyond coursework in the program of study. The agenda included an opportunity for the group to discuss collaborative research developments.

Dr. Taylor, a nursing administrator responsible for the program’s initial development, summed up the role of collaboration in establishing an interdisciplinary degree program.

We spent a lot of time working in groups, doing retreats together, getting to know one another, getting to understand. You talk to those education faculty now and you’d swear they were nursing faculty. They basically understand every … they just haven’t got a nursing degree.

They understand how nursing works. They understand all the standards we have to face. They understand the problems in nursing. They also understand the faculty shortage. They just understand the differences in strategies that are often used. They basically, in working with our students in all these courses and on different assignments, have become very, very
knowledgeable about nursing and how to teach nursing in a very …. They know all of our theorists. We know their theorists now. But a lot of sharing.

Communication played a key role in the development and facilitation of an interdisciplinary doctoral degree program involving two academic units. Through communication, education and nursing faculty gained an understanding of each other which created the opportunity for genuine collaboration.

**The Role of Communication in Developing an Interdisciplinary Graduate Degree Program**

“What was cool was we talked.”
(Dr. Long, education faculty member who teaches in the program)

Education and nursing faculty learned about efforts to develop an interdisciplinary doctoral program through an array of both formal and informal communication methods. These systems were used to keep faculty updated during the program development phase and into the program delivery phase as well as solicit feedback. Dr. Gray, an education faculty member teaching in the program stressed the importance of communication when working across disciplines. Communication is essential to set agreed-upon goals and determine how best to realize those goals while working through differences in approach. Decisions about the program required everyone’s input or at a minimum input from the steering committee. Administrators from each college served on both the steering committee and the committee assigned to develop the program so information shared with faculty came directly from their own administrators. In addition to the program’s steering committee, a nursing administrator who worked on the program’s initial design identified the coordinator of student recruitment and the program’s website as essential systems of communication. The coordinator of student recruitment was hired to recruit and handle the everyday administrative duties necessary to run the program. That full-time employee worked for the College of Education but held an office in the College of Nursing.
with access to information from both colleges. Faculty looked to this individual for administrative support and to maintain open lines of communication between the two disciplines. The program’s website included a section for faculty materials giving faculty a place to find needed information.

Communication promotes collaboration, helps individuals gain an understanding of similarities and differences between the two disciplines, and provides the opportunity to build relationships. A democratic form of discourse gives participants a context for discussing ways to reach a common goal despite differing cultures and areas of expertise. For collaboration to occur, participants need an open line of communication. A nursing administrator responsible for the program’s initial development, Dr. Taylor, indicated that bringing everyone together to talk about their courses, teaching strategies, ways to tailor courses to meet the needs of nurse educators, and research projects factored into the program’s success.

Formalized communication processes provided opportunities for those involved in the interdisciplinary doctoral program to engage in conversations and discuss different aspects of the program. Faculty retreats, the steering committee, ad-hoc subcommittees, and new student orientations gave those working with the interdisciplinary program an opportunity to talk to each other, share ideas, solve problems, and make important decisions related to the program. The faculty retreat played an integral part during the program’s development phase. The group discussed the idea of integrating teaching and research into each course as well as course objectives, assignments, and assessments. They discussed possible links between courses. To avoid overlap, they discussed course subject matter. They also discussed commonalities between courses in terms of assignments and activities. Those interviewed who participated in the retreats spoke positively about their experience and the benefits of scheduling time to talk and plan. Dr.
Clark, an education faculty member serving on the program’s steering committee, described the types of conversations taking place at the retreats.

They are just communicating across the courses about what they’re doing and how students are doing in that course. That may sound like it’s not as engaged and integrated as it might be, but if you just think, the other joint degrees on campus, for example, law and business I believe, or political science. You do your law degree. Then you do your political science degree, and I don’t know that the faculty ever talk.

Dr. Hall, a nursing faculty member serving on the steering committee member, pleasantly reminisced about past retreats. Faculty from both colleges attended the day-long retreats. In this collegial environment the group ate, laughed and talked. She described the time together as joyous with everyone committed to making the program work. The retreats provide a formal avenue for faculty to share information about program development, discuss how courses fit into the curriculum, brainstorm possible changes to the program, and provide feedback to each other. After the program’s launch, faculty retreats offered participants the chance to discuss positive aspects of the program as well as possible improvements. The results from surveys administered to those attending faculty retreats indicated the value placed on communication. According to survey results, faculty serving on dissertation committees enjoyed meeting with each other at the retreats and talking about their experiences. Survey results indicated that the discussion of each course in the curriculum, including course assignments, by the faculty teaching those courses helps to prevent duplication of content and omission of critical content. Those attending the retreats enjoyed engaging in discussions, networking, and interacting.

At the start of each fall and spring semester faculty and students attend an orientation. During orientation faculty meet over the lunch hour and gather in groups to meet with students to help prepare them for the comprehensive exam or the dissertation process. Dr. Taylor, a nursing administrator responsible for the program’s initial design, talked about the opportunity for
faculty to communicate at the orientations. “I think also too, that we do meet twice a year and during the orientations, and at that point in time there is opportunity to talk and talk things over. I think the faculty are constantly exchanging information. “

Through communication across disciplines participants have the opportunity to build relationships with people they might not otherwise meet. Dr. Anderson, a nursing administrator responsible for the program’s initial design said, “Learning about the other college and them learning about us was an interesting experience.” An education faculty member who worked on the program’s initial design, Dr. Jones, said, ‘It’s been nice to talk to someone outside the field.’” The nursing dean, Dr. Johnson, spoke about the importance of spending time together in an effort to understand one another and appreciate each individual’s area of expertise. Through time intentionally devoted to sharing, faculty get to know each other and understand one another’s backgrounds and areas of expertise. Oftentimes groups venture into a new endeavor, such as an interdisciplinary degree program, without really taking time to understand and value of the change and the reasons behind support for the change as they pertain to each individual unit. The former provost, Dr. Smith, explained the value of building relationships across disciplines. “When those relationships were formed, then they were willing to work through the problems.”

In addition to building new relationships, communication across disciplines exposes faculty to a different academic discipline. Dr. Lewis, a steering committee member representing education said that faculty members from both disciplines have gained insight into a field outside of their area of expertise. He has learned a great deal about nurse education by serving alongside nursing faculty on dissertation committees. Some may consider the situation odd with education faculty sitting on dissertation committees for nurse educator students; however, research
transcends all disciplines and the education faculty members participating in dissertation committee meetings hold the credentials necessary to act in that capacity.

To keep faculty informed, those charged with developing the interdisciplinary doctoral degree program used existing formal communication systems currently in place within each college to disseminate information about the new program. In the College of Nursing faculty received reports, both written and oral, from the dean and the associate dean responsible for graduate programs. Dr. Hall, a steering committee member representing nursing, talked about the way in which faculty received information about the interdisciplinary program. She indicated that through reports shared at regularly scheduled graduate faculty meetings and in graduate education committee meetings, leaders kept faculty abreast of the progress made toward completing the different phases of the program development process. Leaders addressed questions and issues of concern by following up with faculty at the next scheduled meeting. Dr. Hall said “If someone didn't know what was going on it was because they actively made a decision not to know. I mean you really would have to be hiding under a rock not to know what was going on.” Dr. Hall stated that some of those graduate faculty meetings actually turned into working sessions dedicated to addressing issues pertaining to the interdisciplinary program. One of the nursing administrators responsible for the program’s initial design, Dr. Anderson, talked about the input they received from graduate faculty regarding the interdisciplinary program.

We have graduate faculty meetings, usually monthly. In those meetings we would talk about where we were with the program, what kinds of things were happening. The graduate faculty were very instrumental in sharing information. As we shared with them, they were helpful in suggesting that we do this or that or what are the issues? As we implemented the program they were again very vocal in telling us this isn't working or what about that or can we redesign this or that?

Like the College of Nursing, the College of Education also used their existing communication system to inform faculty about the interdisciplinary degree program. Dr. Miller, the former
education dean explained that leaders reported on the progress of the interdisciplinary program several times at college faculty meetings to keep everyone abreast of the change. Education faculty also received information about the program through emails and meetings. Dr. Jones, an education faculty member serving on the committee charged with designing the interdisciplinary program said, “We were really good at soliciting feedback throughout the whole process. We didn’t just say, Okay. This is what we’re going to do and this is it. We got constant feedback through the whole process.” Dr. Clark, an education faculty member on the steering committee working in the department housing the degree program said, “Of course we’re talking about this program in our faculty meetings.”

Through collaboration and communication across the disciplines, faculty members discover the norms, practices, and structures inherent to that discipline. This awareness of differences helps to create a positive working relationship.

The Effects of Discipline-Specific and Institutional Norms, Practices, and Assumptions in Developing an Interdisciplinary Graduate Degree Program

“This may be the interdisciplinary challenge…we’re coming from two completely different contexts. Our orientations are completely different.”

(Dr. Long, education faculty member teaching in the program)

Kuh and Whitt (1988) define culture in higher education as patterns of norms, values, practices, beliefs, and assumptions that guide behavior and provide a framework to then interpret the meaning of events and actions. The norms, practices, and assumptions of each discipline as well as the institution affected efforts to develop and implement an interdisciplinary doctoral degree program. Faculty members from two disciplines working together to offer an interdisciplinary program hold opposing opinions and unique experiences that result from discipline specific training as well as current structures within the institution and the academic
Dr. Davis, a nursing faculty member teaching in the program, spoke about these differences.

Anytime you bring two disciplines together, a lot of the ways that they think about doctoral education and a lot of the ways we think about it, while both are correct, they're different. Even getting down to a dissertation defense, there may be different opinions. We had to work through those things. Initially we had attempted to do an increase in collaboration per courses, like maybe have an educator and a nursing faculty teach the same course. There were some obstacles to work through that. Some of it was the logistics of it all. We really believe in online education and the College of Education prefers a blended approach. What we tried to do is have it both ways. I think we’ve been successful.

Through an analysis of the data collected during participant interviews, I identified a number of areas in which nursing and education differ including preferred delivery format, approaches to teaching, research and doctoral studies, experience delivering doctoral programs, and unstated rules that guide daily behavior and philosophies.

During the program’s development phase, the initial group of individuals appointed by the deans discussed the program’s format. The program’s audience consists of working nurses interested in becoming nurse educators as well as current nurse educators looking to earn a terminal degree. The program’s format needed to be conducive to this particular audience. Nursing faculty were comfortable offering courses online. Comments from a survey sent to students enrolled in the program corroborated this fact. “Nursing faculty are very comfortable with distance learning and online communication.” The representatives from nursing working on the program’s initial design suggested an online doctoral program. At the time, all nursing graduate programs were offered online. Although many of their programs included a combination of weekend, evening, and online courses to accommodate educators interested in earning an advanced degree, the College of Education offered few online programs. They preferred meeting with students face-to-face. Dr. Williams, an education faculty member on the committee charged with formulating the program’s initial design, said that deciding on the
program’s format was one barrier they faced in designing an interdisciplinary program. The education faculty would have liked the program to be more of a residential program while nursing favored online delivery. The two sides compromised deciding to offer a program with both online courses and weekend courses scheduled on campus one weekend each month.

Dr. Anderson, one of the nursing administrators assigned to the initial group charged with developing the program indicated that nursing faculty wanted the interdisciplinary doctoral program to be offered online because the online format met the needs of the prospective students. Because education faculty preferred meeting on campus, the two groups negotiated an alternative option with nursing courses taught online and education courses taught in a weekend format. When asked how the decision was made to offer the interdisciplinary program through a combination of online and weekend classes, Dr. Hall, a member of the steering committee representing nursing, explained that the group charged with the program’s initial design made that decision after reaching a compromise. Nursing faculty were comfortable teaching online while education faculty held a more traditional perspective. The decision to blend online courses with weekend courses represented a merging of two philosophies.

Research subjects from the College of Education that I interviewed indicated a preference for a delivery format that includes face-to-face meetings with students. As central administrators began to advocate for an increase in the number of online course offerings, graduate faculty from the College of Education expressed resistance. The dean for the College of Education, Dr. Brown, explained that the faculty raise serious questions and concerns about online classes but understand online learning as a new business endeavor for higher education. Dr. Miller, the former education dean, explained that faculty realize the need to offer online courses and programs in order to remain competitive. However, the key lies in creating quality courses.
The data revealed distinctions in the way faculty from education and nursing approach dissertation research, teaching, and doctoral studies. Dr. Williams, an education faculty member working on the program’s initial design explained that because of the different cultures inherent in each discipline with nursing clinical based and education much more theoretical, faculty spent time deliberating over something as simple as what constitutes a dissertation. Education faculty experienced with guiding students through the dissertation process and nursing faculty members with no experience in that area hold different opinions on the way the process works. Dr. Clark, an education faculty member serving on the steering committee said that faculty debated over how to write a dissertation, how the dissertation defense should be conducted, and what kind of research is appropriate. When asked about problems encountered while working with faculty from another discipline to offer an interdisciplinary degree program, Dr. Thompson, a nursing faculty member teaching in the program indicated that faculty learned to work through differences such as the way each discipline emphasizes certain parts of the dissertation.

The nursing dean, Dr. Johnson, talked about differences in research methodologies between the two disciplines as a challenge to implementing and maintaining an interdisciplinary doctoral degree program. Faculty members from the two disciplines differ in terms of their interests and values placed on various research methodologies. She said, “I think that maybe the research that most of the nursing faculty are accustomed to might be different in style and format compared to what many education faculty might use the majority of the time.”

Education faculty teaching in the interdisciplinary program who participated in the study discussed differences they noticed in the way nursing faculty expected students to report their research. For example, Dr. Gray, an education faculty member teaching in the program, mentioned that nursing faculty prefer that students refrain from using the word I in their writing.
Dr. Flynn, another education faculty member teaching in the program, noticed that faculty from the two disciplines differ in the way they expect students to organize the research proposal. “They want you to have a literature review and a conceptual framework as separate sections, and research aims, and research questions. I still, to this day, am not quite sure what a research aim is.” This creates additional work for students when courses build on each other and students use work from a previous course taught by a nursing professor to complete an assignment in another course taught by an education professor. Students must then revise the work they completed for a faculty member from one discipline to match the preferred format of a faculty member in another discipline.

The two disciplines approach teaching differently. Nursing faculty emphasize practical content while education faculty focus on theory. As Dr. Flynn, an education faculty member teaching in the program said, “They, I think, teach to get accredited. We teach for students to learn.” Dr. Harris, an education faculty member teaching in the program, talked about nursing faculty’s emphasis for the practical and education faculty’s focus on the theoretical. During a meeting to plan course content, education faculty members discussed theorists they intended to include in their course materials. Dr. Harris said,

At one point, one of them (nursing faculty) finally said, "When are they going to learn to teach a class?" It was very much that practical clinical mindset which we want our nursing faculty to have, right? They do theoretical work as well, don't get me wrong, but the modus operandi is teaching people to do things. Finding that balance between the quite theoretical or even more to the point I'd say the philosophical. I think that was a challenge.

To unify the two teaching approaches, the decision was made to include a teaching component and a research component in every course. Dr. Williams, an education faculty member responsible for the program’s initial design explained that every course was to include both a teaching component and a research component in an effort to blend the two cultures while at the
same time create a sense of equality between the two approaches. An attempt at co-instructors, one from each discipline, for a curriculum course underscored the dissimilarities in teaching approaches between the two disciplines. An education faculty member serving on the steering committee, Dr. Clark, described the attempt at co-teaching. A course taught co-taught by a nursing instructor and an education instructor made sense in an interdisciplinary program. However, the two instructors approached the course very differently. One faculty member viewed the course from the standpoint of curriculum development considering how to structures a curriculum to meet requirements and master specific skills. The other faculty member regarded the course from the viewpoint of a curriculum theorist focused on the nature and purpose of curriculum and the way curriculum relates to the mind and knowledge. Their approaches to teaching also differed. Although both committed to meeting the needs of the students, the effort failed due to differences they found difficult to overcome.

When the deans from education and nursing began discussing the idea of an interdisciplinary doctoral degree program, the Master of Science was the highest degree awarded by the College of Nursing. Nursing faculty had no experience delivering doctoral programs. The former education dean, Dr. Miller, discussed concerns held by education faculty regarding this inexperience. The education faculty agreed to the interdisciplinary program as long as the nursing faculty selected to teach courses in the program held credentials similar to those of the education faculty teaching courses in the program. The nursing dean at the time insisted on this arrangement in order to offer to prospective students a quality program. Dr. Williams, an education faculty member who worked on the committee responsible for the program’s initial design explained education faculty members’ concerns over a joint program. Partnering with another unit on campus whose faculty have no experience teaching at the doctoral level might
lead to a watered-down version of the doctoral program currently offered through the College of Education and negatively impact the reputation of the program.

Issues associated with a doctoral program such as the prospectus, comprehensive exams, dissertation research, and residency requirements were foreign to nursing faculty and administration because of their inexperience delivering programs at the doctoral level. In an email (March, 31, 2008), Dr. Anderson, a nursing administrator charged with developing the program’s initial design, explained that nursing faculty needed a better understanding of the prospectus that education faculty require of their doctoral students. Nursing administrators working on the program’s initial design relied on the experience of those from the College of Education to negotiate a modified residency requirement for the program that met the spirit of the requirement set forth by the graduate school and institution. As Dr. Miller, the former education dean stated, “Again, for the university it was kind of foreign. But the College of Education pioneered alternative residency programs so that was not something that was a problem with our faculty generally.”

Nursing and education faculty also differ in terms of unstated rules that guide daily behavior and philosophies. Nursing faculty tend to be matter of fact and refer to specifics rather than generalities. They prefer concrete ideas and concepts while education faculty prefer the abstract. Dr. Taylor, a nursing administrator responsible for the program’s initial design, explained the reason why nursing faculty gravitate toward concrete concepts.

Well, obviously there’s a difference in content and a difference in … I think that nursing tends to be more concrete, and education tends to be a little bit more abstract. Nursing…you don’t want somebody deliberating about how many drops of Epinephrine to put in your IV. And so the nature of what we do is much more, I think, concrete. But nursing is an art and a science, and so the art part of it, the intuitive part kind of gave us maybe a bridge to education in the sense that philosophically, some of our theoretical approaches, when we talk about nursing as an art, were more consistent with some of the conceptual frameworks they had for education.
I think, similarly, education is an art and a science, almost. There’s a theoretical approach to things, and then there’s the pragmatic “I’m in the classroom with 35 screaming kids and I’ve got to do something”. I don’t know, I think in nursing, it’s probably more concrete. I don’t want to say concrete, but more … it can be very scientific because somebody’s life depends on it.

Nursing faculty and administrators prefer to move quickly when introducing change and implementing new initiatives. Dr. Anderson, a nursing administrator responsible for the program’s initial design explained that nursing faculty complete tasks promptly in order to move on to the next task while education faculty tend to be slow and methodical in their approach. One approach is not better than the other, just different. Dr. Anderson said, “We had to adjust to their way of doing things, and they had to attempt to adjust to the way we did things.”

Nursing faculty typically enter teaching profession with clinical experience gained in clinical settings. These clinical settings often place participants in a hierarchy with everyone ranked successively according to authority and education. Written rules and procedures are the norm and they are to be followed. Dr. Long, an education faculty member teaching in the program struggled to find the right word to describe nursing faculty, finally settling on the word ‘structured’. Education faculty are less likely to be concerned with written rules and procedures and generally hold a philosophical point of view. Another education faculty member who teaches in the program, Dr. Gray, reasoned that nursing faculty members prefer written rules and procedures because protocols and procedures drive the discipline of nursing and nursing education. Education faculty approach learning from a critical viewpoint and consider the learning process to be naturalistic and interactive. She also explained how nursing’s affinity for rules extends to classroom assignments. During the interview she said that a colleague shared a story about a student who wrote a prospectus that exceeded the suggested length. A nursing professor reviewing the prospectus felt that the student should receive a failing grade simply because she did not follow the rules.
When asked about obstacles that threatened efforts to create an interdisciplinary program, Dr. Hall, a member of the steering committee representing nursing, talked about nursing’s need for policies and structure. Education faculty were not as concerned about policies. Dr. Hall chuckled about the differences between nursing and education faculty regarding policies and structures explaining that the education faculty working with the interdisciplinary program “…sort of, I guess, humored us little bit.” They seemed to accept nursing’s need for structure and were willing to adapt. At the same time nursing faculty working with the interdisciplinary program realized the importance of compromise. “Somehow we had to reach a happy medium where we sort of relaxed our thinking about, you know, everything's got to be laid out.”

An education faculty member teaching in the program, Dr. Flynn, described how the need for rules extended to the students who have been indoctrinated to the norms and practices of nursing through their studies and through their experiences nurses. “They want everything laid out to a T. They want to know the font size.” In another example of nursing’s preoccupation with rules and procedures, Dr. Flynn explained that the directions for a writing assignment taught by a nursing professor required students to locate between 15 and 20 articles dated between 2000 and 2014. A student studying a particular topic needed to reference a large number of publications dated prior to 2000. The student followed the rules and as a result produced an incomplete literature review. The directions failed to give students the autonomy to consider relevant literature from well-known experts in the field written prior to 2000. However, students are conditioned to follow the rules. Education faculty encourage students to exercise their own professional judgment when completing written assignments. They emphasize content rather than the number of pages or the number of words included in the assignment.
The use of grading rubrics is another example of nursing’s need for structure. Rubrics are standard in a nursing course syllabus. However, the inclusion of a rubric in the course syllabus is not a hard and fast rule with education faculty. Dr. Flynn and Dr. Long, two education faculty members teaching courses in the interdisciplinary program, indicated that they now use rubrics in order to appease the students. Dr. Long said, “They were upset about not having rubrics. We don’t use rubrics. For the good of the matter now I have rubrics and we use them in my education class.” She explained that the doctoral students not enrolled in the interdisciplinary program laugh when they see the rubric. She was concerned that a rubric would force students to adhere to her expectations rather than develop their own views. Dr. Flynn explained that writing a dissertation allows for the creation of new knowledge. How can you develop a rubric or write a procedure related to the production of new knowledge?

Although education faculty put less emphasis on the strict adherence to rules and procedures than their colleagues in the College of Nursing, they expressed an understanding for the reason behind these standards. Dr. Long, an education faculty member teaching in the program, made this comment: “I guess they have to do it in their field because you cannot leave any room for error. We on the other hand, me particularly but all of us for the most part, are very laid back.” She discussed an incident involving a student struggling with coursework due to some personal issues. She felt the nursing faculty members were inflexible to the situation. In the field of education there is room for flexibility. No one suffers harm if rules are bent or procedures ignored. She said, “In nursing, you're expected to be there. If you're not, you can’t just not show up. You’ve got to be precise…” Dr. Flynn, another education faculty member said,

Again, the rule-following and the rule creation, and then it just creates this interesting … in the name of clarity, it … which, if I’m dealing with undergraduates, and I’m developing a care plan for how to give meds to a person, I get it.
In addition to norms, practices, and assumptions inherent to the disciplines of nursing and education, institutional norms, practices, and assumptions also affected efforts to develop and implement an interdisciplinary doctoral program. During the interviews I asked participants how offering an interdisciplinary program fit into the institution’s culture. Overall, research participants viewed the institution’s culture as one open to change and new initiatives such as interdisciplinarity. The group charged with developing the program’s initial design proposed a non-traditional format that combined online courses with weekend meetings taking place on campus once a month. The institution supports online courses and programs as well as blended courses and programs that combine face-to-face meetings with online learning. This type of format meets the needs of individuals interested in earning a college degree but unable to attend classes on campus during the day. By offering programs through distance learning administration meets the institutional goal of increasing enrollments without spending funds on new facilities.

Dr. Lewis, a member of the steering committee representing education, said that the online format has become part of how the university and administration envision a research institution.

Although serving as the state’s flagship research institution steeped in tradition, the institution supports the concept of a modified residency requirement for doctoral programs. With the traditional residency requirement students enroll in nine credit hours for two consecutive semesters spending a significant amount of time working closely with faculty. In order to offer an interdisciplinary doctoral program to working adults, the group charged with the program’s initial design requested a modified residency requirement that captured the spirit behind the idea of a residency requirement as set forth by the graduate school and institution while at the same time making the program a viable option for full-time working adults. The group proposed that students enroll in nine credit hours each term using a combination of weekend class meetings
and online learning. In this way students are immersed in coursework and spend time on campus with professors while continuing to work full-time. Dr. Hall, a nursing faculty member serving on the interdisciplinary program’s steering committee, explained that support for the modified residency requirement that meets the spirit of the requirement as set forth by the graduate school and institution reflects the institution’s attentiveness to the changing student body.

Well, I think we know that for the university and for the college, we know that the world is changing. We know that our students are changing. We know that life circumstances are changing. So I think that the modified residency is reflective of that. Given that we feel that the intent of the residency is still honored in that modification. It’s not a less than type of outcome that you have. It's just a different outcome that you have. It’s just a different way of getting to that same place. It’s not lessened, weakened or anything like that, and if we felt that it was, in any way, then we would not have opted or we would have figured out something else to do. It's just changing, and we just have to, we have to be attentive to our audience.

Although not explicitly touted across campus, central administration supports the concept of interdisciplinary study. For example, undergraduate students must complete a broad-based core of courses that expand across multiple disciplines. The institution offers a doctoral program in interdisciplinary studies for students with interests and goals that do not fit within the traditional academic boundaries. Dr. Harris, an education faculty member teaching in the interdisciplinary doctoral program for nurse educators indicated that the institution supports interdisciplinarity in the area of service as evidenced by a number of centers on campus that cross the disciplinary boundaries such as the center for community-based partnerships. Interdisciplinary work also occurs between individual faculty members who choose to partner with someone working in another discipline. However no reward system exists for this type of work.

Other campus initiatives that bring academic disciplines together demonstrate the institution’s support for the concept of interdisciplinarity. The hiring of a new Vice President for Research who values collaboration across the disciplines is another example of how the
institution supports change. In an article in the institution’s faculty/staff newsletter, the recently hired vice president explained that interdisciplinary programs are needed to deal with the effects of decreased research funding and increased competition. The institution recently launched a hiring program aimed at appointing a cluster of faculty members representing at least two different colleges to conduct interdisciplinary research.

Those I interviewed shared examples of activities that highlight efforts to bring disciplines together across campus signifying changes to traditional ways of thinking and operating. Dr. Thompson, a nursing faculty member teaching in the interdisciplinary doctoral program, talked about a recent meeting she attended. At the meeting the institution’s new vice president for research revealed that the institution will open a center designed to provide statistical and methodology assistance to those conducting research.

Things of that nature tell me that the university is moving much more into an open area. The question I'm asked so many times, people will say, “Oh, my Aunt Susie teaches there in English. Do you know her?” I'm like, “No, I'm sorry.” I tend to stay in my own little building. I think that's changing. I truly believe the culture of the university is changing to pull us together more.

She remarked that through involvement in various activities on campus such as faculty senate and service-learning groups, faculty have the opportunity to meet colleagues working in other disciplines and brainstorm ways to collaborate. “Once you begin to know people and get to know their strengths, then you're much more open to working with them.” Dr. Thompson described the institution’s culture as one that encourages and appreciates creativity, particularly innovation that leads to solving real problems and addressing real needs. The culture promotes the generation of new ideas that allow faculty and staff to achieve success in reaching goals established through strategic planning. Dr. Anderson, a nursing administrator assigned to the initial group charged with designing the interdisciplinary doctoral program said that even though the institution
observes long-standing traditions, faculty and administrators remain open to new ideas in order to attract new students and provide the best educational opportunities. This type of broad-mindedness requires exploring new options rather than clinging to the past.

The institution demonstrates a culture open to change and new initiatives through its support of the College of Continuing Studies whose responsibilities include facilitating the delivery of non-traditional degree programs. Instructional designers employed through the College of Continuing Studies assisted faculty with the development of online courses for the interdisciplinary doctoral program. The instructional designers offered faculty suggestions regarding strategies to use in the online classroom in an effort to deliver quality courses. Each semester the technical support team employed by the College of Continuing Studies assisted faculty members with course updates.

Despite evidence that the institution supports change, some institutional norms, practices, and structures that deter interdisciplinary work still exist. Dr. Brown, the education dean, discussed the fact that the departmentalized structure of the university makes implementing interdisciplinary programs difficult. Faculty members are appointed to a particular department and receive tenure and promotion in that department based on the work they do to further their discipline. They are anchored in a department with service obligations to that department. Merit ratings are carried out within the department. The former provost, Dr. Smith, explained that faculty often say they believe in interdisciplinary efforts, but what they really value is what happens within the discipline. An education faculty member who worked on the committee responsible for the program’s initial design, Dr. Williams, explained that despite the development of an interdisciplinary program, the university continues to operate with each college functioning as a fiefdom. Nursing and education faculty are located in separate buildings.
across campus. The nursing building is not within walking distance from the buildings that house education faculty. This makes collaboration inconvenient. In addition, faculty tend to focus on research and projects stemming from their personal interests developed through their indoctrination into the discipline. Dr. Lewis, a steering committee member representing education, said that although the university promotes the idea of an interdisciplinary viewpoint among programs, faculty tend to silo themselves and refrain from sharing. Dr. Gray, an education faculty member teaching in the program, talked about the fact that some disciplines view interdisciplinarity negatively. Working with another discipline might diminish their status. They consider teaming with another discipline a form of betrayal. Another education faculty member teaching in the program, Dr. Harris, talked about the continued evidence of silos.

So that has been a challenge, mainly figuring out what each other is talking about. I think, seeing as I would go to those other meetings, it seemed to me that over time, more shared language seemed to be developing, but it still is in some ways, I think, very siloed. Now I'm doing my nursing. Now I'm doing my ed research. Now I'm doing my education part, which is interesting. I mean it's interesting to watch the way the students negotiate that as well.

The competition for resources can discourage interdisciplinarity. Resources are allotted by college and then department. The former provost, Dr. Smith, described the competition for resources as a major obstacle to interdisciplinary programs. This was particularly true for education because they were already offering doctoral programs. Running another program with additional dissertations to chair could strain the college’s resources. In addition to competition for resources, disciplines involved in interdisciplinary work compete for recognition. Both Dr. Smith and Dr. Carter, a nursing faculty member teaching in the program, discussed the question of who gets credit for the students enrolled in an interdisciplinary program.

The role of leadership in developing an interdisciplinary graduate degree program
Supportive leadership provides the resources and momentum required to implement new initiatives. This support includes all levels of leadership from top university administrators to academic deans and department heads as well as committee members and individuals in unofficial leadership roles. Those interviewed described the willingness of senior administrators to support the establishment an interdisciplinary doctoral program. One of the nursing administrators responsible for the program’s initial design, Dr. Anderson, said,

I found everyone from the president to the provost to the dean of the graduate school, the deans of the colleges to be open to whatever we said. "Well, in order to make this program go, we're going to have to do this." They were okay. As long as we could make a case, as long as we had our ducks in a row they were willing to be open to consider whatever those options were.

Dr. Clark, a member of the steering committee representing education who was involved in the program from the very beginning, expressed gratitude for the senior administrative support. He spoke about four deans who supported the program and what he believed to be the reason behind their support. The nursing dean sought to address the state’s need for qualified nursing faculty as well as give her faculty the opportunity to engage in work with doctoral students. The education dean valued and promoted growth in departments and faculty and supported initiatives like the interdisciplinary doctoral program. The College of Continuing Studies dean supported the interdisciplinary doctoral program. The college by its very nature supports the development of new programs aimed at new audiences. The graduate school dean who was fairly new to his position intended to re-vitalize graduate education with new and exciting endeavors. The interdisciplinary program involving education and nursing served as an example of the type of initiatives he hoped to carry out in his new position. The provost showed her support for the program by allocating two faculty positions to help meet the additional teaching assignments created by the new program. As a tribute to the provost for her support in launching the interdisciplinary doctoral program, each year the College of Education awards a scholarship in
her name. The recipient of this award exemplifies creativity, innovation and excellence in teaching, dedication to service in the field, and a commitment to scholarship to promote excellence in nursing education. Dr. Clark stated that, “Administratively, with four deans behind you and a provost, the obstacles quickly fade…”

Graduate school administrators supported development of the interdisciplinary doctoral degree program. The program’s format, designed to accommodate nurses working full-time, combined online courses with weekend courses that required students to travel to campus one weekend each month. The committee charged with developing the program met with the graduate school dean to request a modified residency requirement. Notes reviewed during the document analysis indicated that graduate school administration felt the program met the intent and spirit behind the institution’s residency requirement, and therefore approval was not necessary for a modified residency. However, the graduate school dean fully supports the idea of alternative residency options for doctoral programs so long as the proposed option fulfills the intent and spirit of the residency requirement, and that is to ensure that doctoral students contribute to and benefit from the complete spectrum of educational, professional, and enrichment opportunities provided at the institution. An alternative residency option makes sense, particularly for the College of Education where the majority of graduate students work full-time. The changing environment forces institutions to adapt or face declining enrollments. Dr. Clark, an education faculty member serving on the program’s steering committee, talked about the need to respond to external demands and the graduate school dean’s willingness to explore new opportunities that challenge tradition.

I think what happened is we’re a university in a field in the western part of the state. We were rooted to a traditional model of instruction where everybody comes here and has a full-time graduate education. It’s as if we are the physics department, and everybody had to be like that.
The reality of the educational situation, and modern demands, and alternative programs, and new technologies, recruiting students in, something had to give. In comes a new dean with a more open mind and let’s make something happen. It was ready to change.

Both the education and nursing deans lent their support to the establishment of an interdisciplinary doctoral degree program. After meeting at a state conference on health and discussing the possibility of collaborating on a doctoral degree program to address the shortage of qualified nurse educators to serve in faculty positions, the education and nursing deans each appointed two staff members to work together to develop the program’s initial design. Dr. Jones, an education faculty member serving on that initial committee, explained that the deans asked them to determine the best option for preparing nurse educators using an existing degree program housed within the College of Education. They considered coursework and well as potential problems. A nursing administrator serving on that initial committee, Dr. Anderson, said the group’s responsibilities also included creating a program of study, developing policies and procedures specific to the program, and determining admissions requirements. Dr. Jones, one of the education faculty members responsible for the program’s initial design talked about the challenge of convincing the nursing and education deans to hire a program coordinator. Each dean agreed to contribute the initial funding to cover the salary of a recruitment coordinator responsible for recruiting students into the program and handling the day-to-day activities associated with running a program including assisting current and prospective students. Research participants expounded on the importance of this position to the program’s success.

The deans also provided support in the form of a formal request for faculty joint appointments. Per institutional policy, faculty members chairing dissertations must be appointed to the college in which the degree program is housed. This meant that in order for nursing faculty to chair dissertations, they would need faculty appointments in the College of Education. The
deans from both colleges sent letters to the provost asking for joint appointments in each other’s colleges for those faculty members who would be involved in dissertation research. Dr. Taylor, a nursing administrator who worked on the program’s initial design, said nursing faculty voiced excitement about the dual appointment.

The other thing that, you said the faculty members, and I think this excited a lot of the faculty in both schools. They became adjunct faculty for the other school. That was a … I know for our faculty it was a very … they were excited by that.

A new program meant additional courses for faculty to cover. The deans offered support to address this increase in workload. For education faculty it was important that the courses be considered part of a regular teaching load. When that option was not available faculty received compensation for teaching an overload. Dr. Anderson, a nursing administrator responsible for the program’s initial design, explained the way in which the nursing dean proposed to handle this issue. Because of the limited number of full-time faculty teaching at the graduate level, a decreased teaching load was not feasible. Those taking on additional teaching responsibilities received additional compensation. A nursing faculty member teaching in the program, Dr. Carter, recalled the way in which administration managed the additional teaching assignments. Nursing administration adjusted schedules giving faculty the opportunity to volunteer or request to teach a specific course.

The steering committee provides an additional form of leadership that supports the program. The group initially tasked with developing the interdisciplinary doctoral program discussed the creation of a formalized committee with a delineated leadership role to provide continual oversight of the program. The committee, known as the steering committee, would be responsible for promoting communication between the colleges and decision-making relative to the program. The committee would meet on a regular basis to manage on-going issues and concerns. Those serving on the informal committee responsible for the program’s initial design
would continue to serve on the formalized committee. Co-coordinators, one representative from nursing and one from education, manage the committee. Committee members discuss curriculum and the sequencing of courses making adjustments when necessary. They oversee processes related to the comprehensive exam and dissertations. They review applications, discuss recruitment efforts, plan faculty retreats, and plan the student orientations held at the start of the fall and spring semesters. Committee members also select the recipient of the scholarship named in honor of the provost. “We have a steering committee that addresses all issues, concerns, and basically the running of the program. Decisions are made as a group”, explained Dr. Davis, a nursing faculty member teaching in the program. When asked about tactics that helped facilitate program development, Dr. Anderson, a nursing administrator responsible for the program’s initial design, named the steering committee. The committee met monthly, with additional meetings scheduled as needed, to discuss problems and issues associated with the program.

Dr. Carter, a nursing faculty member teaching in the program, also cited the steering committee when asked about tactics that helped facilitate program development and continued implementation.

Yes, and the steering committee. That way, their faculty, our faculty, and I'm not sure, but I'm assuming that everybody on the steering committee has taught, and we're all involved in dissertations and committee work. But that way everybody can be aware of issues they're having, issues we're having, issues the students are having, figure out who needs to deal with it, who needs to address it, how to best address it.

For instance, one issue is there was a decision made. So it's clear it's the EdD program. That's where they get their doctorate. However, I don't know if you were aware of this. They can come in without their master's. So that's a part of the program, and that has been difficult. I'm aware of it because they're taking a course in that when they're taking my course, and it's overwhelming. They've got a lot of practicum hours. Most of the students are working full-time. It's just really stressful. But my point is with the steering committee I can bring it up, and they're decreasing the hours, and trying to either move it or change the curriculum for the MSN/EdD.
Dr. Jones, an education faculty member responsible for the program’s initial design proudly explained the vital leadership role played by the steering committee. Through the committee stakeholders hash out issues and attempt to be proactive by anticipating potential programs. Programs often start with a steering committee, but over time the group disbands. The steering committee continues to meet on a regular basis after seven years. She said, “You probably can’t find a single program on campus that has a steering committee that’s that active, that listens to student needs, that addresses those student needs.”

In addition to support from the provost, deans, and the program’s appointed steering committee, many of those interviewed discussed the leadership and support provided by the program’s faculty coordinator, Dr. Clark, who serves as a member of the steering committee representing education. Dr. Williams, an education faculty member serving on the original committee charged with the program’s initial design, described him as a champion for the program and the glue that keeps the program together. Dr. Thompson, a nursing faculty member teaching in the program, said that he has really facilitated interactions between the two faculty groups. She described him as easy to work with, and open to suggestions and changes and different ways of doing things. Dr. Clark engineered the use of dissertation teams comprised of members of both nursing and education faculty. The team concept helps students easily identify faculty members willing to participate in the dissertation process and ensures that each discipline is equally represented. Dr. Anderson, a nursing administrator responsible for the program’s initial design, spoke fondly of the dissertation team concept giving the program’s faculty coordinator credit for an ingenious idea that brought both faculties together to ensure equal participation in the dissertation process. Dr. Gray, an education faculty member teaching a
course in the program, said the program faculty coordinator’s enthusiasm for the program keeps her motivated and inspired.

Although important, developing and implementing an interdisciplinary doctoral program requires more than administrative support. The faculty from both academic units must be vested in the program.

The Role of Faculty Buy-In in Developing an Interdisciplinary Graduate Degree Program

“We involved the faculty from the very beginning. That was important.” (Dr. Jones, education faculty member assigned to work on the program’s initial design)

An analysis of the interviews demonstrated the importance of faculty buy-in. Dr. Jones explained how the support received from administration affected faculty buy-in. “We had tremendous support from the administration at large, so I think that made things go a little bit, not necessarily quicker, but it was just more accepted. The idea was more accepted.” Throughout the development process and even after the program’s launch, efforts to involve faculty were evident. When asked what steps were taken to involve faculty during the planning process, Dr. Davis, a nursing faculty member teaching in the program explained that, “It was all faculty driven. It was all…from the get go, faculty were involved from the get go…the development of the program of study down to each individual course being developed.” Dr. Harris, an education faculty member teaching in the program, cited faculty involvement as a tactic necessary to successfully develop and facilitate an interdisciplinary program. Faculty who were going to be involved in the program’s delivery needed to be engaged in both the initial discussion and extended discussions as well as in the endorsement of the philosophical underpinnings of the degree. Those leading the development of the interdisciplinary doctoral program identified faculty based on their expertise and invited them to participate in the program. The selected
faculty attended the initial retreats where their opinions were heard and their expertise appreciated. Faculty chose whether or not to participate in the program. Dr. Harris said,

As best I can tell, people opt in to participating and nobody’s forced to come and teach. Now, that may not be true for nursing, I don’t know how they work, but I don’t get the sense that anybody has to teach in the nursing program if they don’t buy in to the model or to be on the dissertations or whatever.

Giving faculty the option of participating in an interdisciplinary program helps administration gain the support they need from faculty to execute a successful program. Research participants spoke of the importance of faculty commitment to the program. Dr. Clark, an education faculty member on the steering committee explained that faculty involvement in various aspects of the program such as the pre-prospectus meetings, the proposal prospectus meetings, dissertations, and the comprehensive examination teams works to solidify commitment to the program over an extended period of time. Those involved in the program’s development from the very beginning explained how they kept faculty aware of their progress. Dr. Anderson, a nursing administrator responsible for the program’s initial development, described how she kept nursing faculty in the loop and involved. At regularly scheduled graduate faculty meetings those working closely on the interdisciplinary program’s initial design asked faculty what they considered as necessary components to include in a doctoral program designed to prepare nurse educators. Faculty knowledgeable about associate degree programs in nursing were asked to provide input in an effort to develop a program to meet the needs of community college nursing instructors interested in pursuing a terminal degree. Although not everyone served on the front lines to develop the interdisciplinary doctoral program, faculty input and approval remained a part of the development process.

Dr. Jones, an education faculty member serving on the committee charged with creating the program’s initial design, explained how they informed faculty about the program throughout
the development process in an effort to create a feeling of ownership. The program was discussed in meetings and through emails. Efforts to keep faculty involved continued after the program’s launch with faculty invited to attend events associated with the program such as orientation.

Securing buy-in from nursing faculty to partner with education to offer an interdisciplinary doctoral program although necessary, required less persuading than securing buy-in from education faculty. Nursing faculty often discussed the possibility of teaching at the doctoral level. Education faculty, on the other hand, were heavily involved in doctoral work. An additional program meant an increased work load. Dr. Anderson, a nursing administrator responsible for the program’s initial design expressed her gratitude and surprise regarding education faculty’s support for the interdisciplinary program.

Again, I go back to the College of Education faculty who've been phenomenal since the inception of the program in support of it. Who could easily have said, "I already had," They did say, "I already have thirteen dissertations. How am I going to do anymore?" Yet, they were very supportive and willing to do it. They went back and adjusted schedules as a result of that when folks said, "I can't do any more than this. Well, okay. Let's look at this other way of doing this."

But in terms of the College of Education, faculty bought it from the beginning. They were very supportive. We expected to have to sell it to them, and we really didn’t. They were excited about it. They continue to be excited about it. They're very active. They like working with nursing students. They say they do. I hope they're telling us the truth.

Summary

To compete for student enrollments and dwindling resources, institutions of higher learning need to adapt to external demands. Change initiatives allow institutions to address these external demands. A large research institution in the South developed an interdisciplinary doctoral program to address the need for highly qualified nurse educators to train the next corps of nurses. This study reflects on the experiences of faculty and administrators responsible for
developing and maintaining an interdisciplinary doctoral program. The data revealed six major themes: (1) The role of equality in developing an interdisciplinary graduate degree program. Treating each other with respect and as equal partners affects the development and implementation of an interdisciplinary doctoral degree program. (2) The role of collaboration in developing an interdisciplinary graduate degree program. To create a sense of partnership across the disciplines faculty seem to need an opportunity to be actively engaged. (3) The role of communication in developing an interdisciplinary graduate degree program. Communication is a necessary component of collaboration. Through open lines of communication new ideas emerge and the opportunity to collaborate and put those ideas into action. (4) The effects of discipline-specific and institutional norms, practices, and structures in developing an interdisciplinary graduate degree program. The norms, practices, and structures inherent in both the discipline and the institution function to both encourage and discourage collaboration across discipline. (5) The role of leadership in developing an interdisciplinary graduate degree program. Leaders, both formal and informal, provide the resources and support necessary to implement change. (6) The role of faculty buy-in in developing an interdisciplinary graduate degree program. Faculty buy-in is vital to the implementation phase of any change initiative.

The next chapter includes a summary of the study’s results in relationship to the proposed research questions and Eckel and Kezar’s (2003) five core strategies and supporting strategies which serve as the study’s conceptual framework. Implications for practice, limitations of the study, and recommendations for future research are also included in final chapter
CHAPTER 5:
CONCLUSIONS, DISCUSSION, AND SUGGESTIONS FOR FUTURE RESEARCH

Introduction

This study was designed to understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program as well as the experiences of nursing and education faculty who teach courses in an interdisciplinary doctoral program. The study also focused on identifying tactics that facilitate change and challenges faced by faculty and administrators attempting to implement change at the college and departmental level.

Using a qualitative research approach, I collected data through interviews and document analysis. An examination of the data as conveyed by perceptions of the research participants suggested common factors that seem to affect efforts to introduce change, particularly change in the form of an interdisciplinary doctoral program.

Results from the study add to the existing literature on interdisciplinary studies, program development, and organizational change. Specifically, the study adds to research on interdisciplinary programs and organizational change at the college and departmental levels. The study gives college and department level administrators seeking to implement change information on tactics that seemed to play a role in a change initiative involving the development and delivery of an interdisciplinary doctoral degree program.

An analysis of the data generated six major themes that revealed participant perceptions of their experiences developing and implementing an interdisciplinary doctoral program.

1. The role of equality in developing an interdisciplinary graduate degree program
2. The role of collaboration in developing an interdisciplinary graduate degree program
3. The role of communication in developing an interdisciplinary graduate degree program
4. The effects of discipline-specific and institutional norms, practices, and structures in developing an interdisciplinary graduate degree program

5. The role of leadership in developing an interdisciplinary graduate degree program

6. The role of faculty buy-in in developing an interdisciplinary graduate degree program

In chapter five I provide a brief summary and then answer the research questions identified in chapter one.

1. What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?

2. What tactics facilitate development of an interdisciplinary academic program?

3. How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?

Chapter five also includes a discussion about the results and highlights implications for practice, study limitations, and suggestions for future research.

Summary

A changing external environment forces institutions of higher learning to adjust in order to remain competitive. In the case of this particular study, a large research institution in the South implemented change by developing and delivering an interdisciplinary doctoral program to address the shortage of qualified nurse educators needed to train future nurses.

Transformational change served as the conceptual framework through which I organized and compared results. Transformational change allows institutions of higher learning to efficiently and creatively continue to emphasize the traditional values of teaching, research, and service inherent in higher education while at the same time meet changing societal demands (Eckel & Kezar, 2003). To determine the existence of patterns of transformational change, I
analyzed and evaluated the data using the five core strategies and 15 supportive strategies critical to transformational change as identified by Eckel and Kezar (2003). Within the context of this particular study, an analysis of the data representing the perceptions of the research participants indicated that despite the use of many of the processes essential to transformational change, the change initiative implemented by the colleges of education and nursing did not appear to fit Eckel and Kezar’s (2003) definition of transformational change.

Answers to the Research Questions

Answers to the research questions are based on an analysis of the data. The data represent the accounts and experiences of those participating in the research study as described at the time of the interviews. The memories of those interviewed regarding answers to questions relating to the program’s initial development which took place more than seven years ago might be clouded. Subject participant responses may be skewed to represent only positive memories related to the development and delivery of the program.

Research Question 1

What challenges do faculty and administrators face as they attempt to achieve interdisciplinary consensus as it relates to program objectives and curriculum?

Establishing an Equal Partnership

In this particular study, the colleges of nursing and education worked together to offer an existing doctoral degree program housed in the College of Education with established objectives and an approved curriculum. Nursing sought to offer a program that would meet the competencies and standards set forth by organizations such as the National League for Nursing and the Southern Regional Education Board Council on Collegiate Education for Nursing. Due
to time constraints and approval issues they searched for a partner willing to compromise and modify an existing program to meet these standards and competencies. Interdisciplinary curricula require engagement and compromise from multiple individuals. Because the idea originated in nursing with the intention of serving the needs of working nurses, nursing faculty and administrators participating in the study indicated the need for equal say in decisions affecting all aspects of program delivery including the curriculum. Within the context of this dissertation study, respect by education faculty for the value and expertise provided by nursing faculty and administrators in the development and delivery of the doctoral program housed in the College of Education surfaced as a factor in creating an equal partnership. An equal partnership establishes a balance of power between the two academic units and identifies each one as an authority figure with valuable insights and expertise. This sense of equality between the two faculty groups embodies a democratic community where cultural differences are addressed through discourse.

**Developing New Processes and Procedures**

When two disciplines attempt to work together to offer a degree program, existing processes and procedures should be reconsidered. Admission into the program, advising, the format of the comprehensive exam, the handling of dissertation research, and communication between faculty housed in separate buildings across campus are examples of issues requiring revision to account for the interests and opinions of faculty from two disciplines and even faculty across departments within the College of Education.

**Merging Different Perspectives**

Decisions related to the interdisciplinary program involved merging the perspectives of the two disciplines. In this particular study an existing doctoral program was adapted to produce a program designed to prepare nurse educators. College of Education faculty and administrators
involved in the program worked with nursing faculty and administrators to evaluate current procedures and course offerings and make adjustments to include the nursing perspective. The idea to include a teaching and research component in every course provided a common thread throughout the program’s plan of study and a way to represent the two perspectives as well as demonstrate the equal role each discipline played in the program.

**Building a Curriculum across Disciplines**

The academic units involved in developing and delivering an interdisciplinary program must work together to ensure that the curriculum meets the needs of the intended audience. The education faculty and administrators involved in the program needed the expertise of the nursing faculty to ensure that the program of study included requirements set forth by professional nursing organizations. Nursing and education faculty associated with the interdisciplinary program worked together to eliminate any unnecessary duplication of content. They collaborated to create assignments that complemented each other and were cognizant of the amount of work assigned to students in an effort to avoid overload. The interdisciplinary nature inherent in the disciplines of nursing and education naturally lends itself to coursework that blends content from both areas. Content for courses in the interdisciplinary doctoral program for nurse educators, regardless of the prefix assigned to the course, combine nursing and education concepts and ideas to form a curriculum around nursing education.

**Learning to Accept Differences**

While working together on the interdisciplinary program, nursing and education faculty and administrators involved in the program and participating in the study seemed to have gained an awareness of their differences which included differences in preferred program delivery format, approaches to teaching, research and doctoral studies, experience offering doctoral
programs, and unstated rules guiding daily behaviors and philosophies. To successfully work together, faculty and administrators from each discipline appeared to have accepted these differences and cooperated with each other in order to make progress with the task of developing and implementing a doctoral degree program. For example, compromises were made regarding the program’s format. Some of the education faculty members interviewed acknowledged their understanding of a strict adherence to policies and procedures by some nursing faculty. Noting differences between the disciplines prompts faculty and administrators to consider and question their own current practices and behaviors. Some of the education faculty members participating in the study indicated that nursing faculty members teaching in the interdisciplinary program include rubrics in their courses. Nursing students are therefore accustomed to a grading rubric. These research participants explained that they now use a rubric to satisfy student needs. Research participants indicated that education and nursing faculty involved in the program collaborated to examine existing practices followed by the College of Education related to comprehensive exams and dissertation research and create new practices to meet the needs of the interdisciplinary nurse educator program.

Research Question 2

What tactics facilitate development of an interdisciplinary academic program?

Supportive Leadership at All Levels

Based on the data collected for this study, support from leadership appeared vital to developing an interdisciplinary doctoral program. This aligns with one of the core strategies critical to transformational change which Eckel and Kezar (2003) labeled as senior administrative support. This support started with the provost who provided resources in the form
of two faculty lines, one for each college, to ensure adequate staff to teach courses and serve on dissertation committees. The graduate school deans offered their support by agreeing to a modified version of the institution’s doctoral residency requirement for the students enrolled in the interdisciplinary program. This alternative version addressed the spirit of the doctoral residency requirement as set forth by the graduate school and the institution while at the same time making allowances for students who work full-time while attending school full-time. The education and nursing deans also provided supportive structures and contributed financial resources to the program. Supportive structures help facilitate change while at the same time demonstrate leadership’s commitment to the change initiative (Eckel & Kezar, 2003). Both deans contributed funding to hire a recruitment coordinator to not only recruit students into the program but to handle daily administrative tasks and serve as a link between the two colleges. Faculty who taught a course for the program in addition to their regular course load received supplemental compensation. Each dean agreed to allow two individuals to serve on a committee to explore possible program options and consider other aspects necessary to the program development process. The College of Continuing Studies also provided support for this interdisciplinary program. The college facilitates the delivery of non-traditional degree programs through marketing and tuition revenue sharing. Through the tuition revenue sharing model the academic unit receives a portion of the revenue generated from student enrollments in non-traditional degree programs. This funding model gives academic units the support they need to be entrepreneurial and offer programs that meet the needs of working adults interested in returning to school.

Supportive leadership also includes the involvement of individuals with no formal authority in making key decisions. Eckel and Kezar (2003) refer to this core strategy of
transformational change as collaborative leadership. Although the two representatives from
nursing were both dean-level administrators, the College of Education Dean chose two faculty
representatives to help plan the program’s initial design. These faculty members worked as
informal leaders to facilitate the program’s initial design and then later to facilitate the
involvement of their colleagues in the program’s final planning stages. The steering committee
provided another opportunity for individuals with no formal authority to be involved in the
change process. This group, comprised of representatives from both nursing and education,
maintains responsibility for making key decisions related to the program’s continued
management. The steering committee gives faculty members involved with the program an
avenue for sharing concerns and offering suggestions.

The program’s faculty coordinator provided an additional level of leadership necessary
for the successful development and delivery of an interdisciplinary doctoral program. Many of
the research participants interviewed described Dr. Clark’s enthusiasm and leadership as an
important factor in the program’s success. Dr. Clark’s involvement in the program began when
the education dean asked him to assist in persuading his department to work with nursing to
launch an interdisciplinary doctoral degree program. Since that time Dr. Clark has continued to
serve on the steering committee and as the program’s main point of contact for faculty as well as
current and prospective students.

Flexible Vision

A flexible vision helps facilitate the development of an interdisciplinary doctoral degree
program. According to the data collected and analyzed for this research study, leaders involved
in creating the interdisciplinary doctoral program appeared to clearly identify the end product,
yet remain open to considering different ways to reach the final goal. Eckel and Kezar (2003)
refer to this core strategy essential to successful transformational change as a flexible vision. A flexible vision is adaptable. Leaders involve multiple people in the planning process to give feedback which influences the final results. By establishing an initial committee to explore the idea of offering an interdisciplinary program, planning faculty retreats, and establishing a steering committee, institutional leaders provided multiple opportunities for the generation of ideas on how best to offer a doctoral program while at the same time address the country’s nursing shortage.

**Communication**

Based on the data collected, both formal and informal communication kept everyone, even those not directly involved, abreast of emerging details related to the change initiative, in this case the development of an interdisciplinary doctoral program. Eckel and Kezar (2003) refer to this strategy which supports transformational change as persuasive and effective communication. However, communication served to accomplish more than just inform nursing and education faculty about the development and delivery of the interdisciplinary doctoral program. Within the context of this study, communication seemed to give education and nursing faculty working directly with the program the opportunity to build relationships and foster a sense of camaraderie. Through communication those involved in the program had the chance to learn about each other as well as the nuances of another discipline. They appeared to have gained an appreciation for the expertise brought to the program by the partnering discipline and an understanding of the differences and similarities between the two groups which helped to establish mutual respect. Based on the data collected for this study, relationships built through communication seemed to be solidified through collaboration.
Collaboration

Within the context of this study, collaboration between nursing and education faculty to make decisions related to the interdisciplinary doctoral program appeared to help those involved connect to the program. By inviting faculty to participate, leaders created buy-in and a commitment to the program and its success. Eckel and Kezar (2003) recognize invited participation as a supporting strategy important to successful transformational change. Tapping into the expertise of campus constituents strengthens efforts to implement change. According to the data, faculty members were identified based on their expertise and invited to participate in various aspects of the program.

Based on the data collected and analyzed for this particular research study, nursing and education faculty involved in the interdisciplinary program collaborated on a number of matters that included the program of study, course content, and course sequencing. They also worked on developing policies and procedures related to admissions, the comprehensive exam, the dissertation process, advising and recruitment. Collaboration seemed to extend outside of the program with faculty working on publications, research, and grant proposals. Connections and synergy generated as a result of the creation of linkages between new groups on campus create the energy necessary for transformation. Eckel and Kezar (2003) identify this as one of the secondary strategies that play a role in successful transformational change. New interactions between individuals who typically spend little time working together help folks understand that they are part of a community attempting to solve a problem. According to Eckel and Kezar (2003), new interactions support transformational change efforts. New interactions break routines and encourage creative thinking and new ideas, exposing participants to different
perspectives. Bringing people together in new ways helps promote communication across campus.

**Faculty Buy-In**

Faculty buy-in, as evidenced through an analysis of the data, appears to be essential to the successful development of an interdisciplinary academic program. Within the context of this study, communication and participation seemed to generate the necessary buy-in from faculty ultimately responsible for carrying out the delivery of an interdisciplinary doctoral degree program at the institution selected for this particular study.

Eckel and Kezar (2003) identified the opportunity to influence results as a supporting strategy that plays a role in facilitating transformation. As conveyed through data, the retreats held both before and after the program’s launch brought faculty experts from the different subject areas within the program of study together and provided the opportunity to offer insight into determining the most appropriate course content for the intended audience.

Supportive leadership, a flexible vision, collaboration, communication, and faculty buy-in seem to help faculty and administrators overcome challenges faced when attempting to implement and deliver an interdisciplinary doctoral program. However, those responsible for implementing change should consider the effects discipline-specific and institutional norms, structures, and practices.

**Research Question 3**

**How do organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program?**

In the case of this particular study, the norms, structures, and practices of the colleges of education and nursing were seemingly conducive to interdisciplinarity. The complex field of
health care requires nurses to work across disciplines to effectively meet patient needs. Education faculty work across disciplines to train teachers not only in the area of pedagogy but in a specific content area whose content must be delivered through another discipline. Therefore, the idea of offering an interdisciplinary program seemed to be one that faculty participating in the research study felt comfortable pursuing.

Differences in norms, structures, and practices within each academic unit appeared to require some degree of compromise in an effort to carry out the change initiative. As conveyed through the data, the academic units involved in this particular study seemed to differ in a number of areas including preference for program delivery format, approaches to teaching, research, and doctoral studies, experience delivering doctoral programs, and unstated rules that guide daily behavior and philosophies. Faculty and administrators appeared to spend time communicating and collaborating in an attempt to reach consensus on various issues associated with the program. Compromise is necessary to establish a new set of norms, structures, and practices that did not previously originate with one group or the other, but instead represent the newly formed group.

When the norms, structures, and practices of the institution create an environment open to change, a change effort such as the creation of an interdisciplinary doctoral program is more likely to come to fruition. Although a research institution steeped in tradition, leaders at the institution under study were seemingly open to considering alternative options to the long-established doctoral residency requirement as long as an alternative option met the spirit of the requirement set forth by the graduate school and institution. The organization’s structure with a continuing education unit dedicated to the delivery of non-traditional degree programs provides another indicator of the willingness to adapt and serve an ever-changing group of consumers. An
announcement by central administrators regarding the hiring of faculty clusters representing at least two different colleges to conduct interdisciplinary research also points to an openness to change. Top institutional leaders appear willing to respond to external demands and support change efforts designed to meet those demands. They seem willing to be flexible in terms of the methods they use to meet institutional goals, such as increasing enrollments. They appear to be open to new degree programs and new ways of offering those programs in order to meet the needs of prospective students.

Even though the institution seems open to change, the old structures still exist and the processes tied to that structure. Faculty members are appointed to a particular department and receive tenure and promotion in that department based on the work they do to further their discipline. The competition for resources also tends to discourage interdisciplinarity with resources allotted by college and then department.

**Discussion**

**Interdisciplinarity as a Means to an End**

The merging of the two disciplines to offer an interdisciplinary doctoral program did not appear to occur as a result of an effort to promote interdisciplinarity. Based on the data collected for this research study, administrators and faculty in the colleges of education and nursing did not seem to set out to offer an interdisciplinary program. Instead, the idea of an interdisciplinary program appeared to be a by-product, evolving out of efforts to reach a number of different goals. Dr. Brown, the education dean, described interdisciplinarity as a technique to be implemented when attempting to address a problem or topic that transcends disciplinary lines. In this case the decision to offer an interdisciplinary doctoral program helped address the need as identified by various professional organizations, such as the National League for Nursing and the
American Association of Colleges of Nursing, for highly qualified nurse educators trained to teach future nurses as well as conduct research to further the field. By describing issues in a broad context and tying the need for change to a national need for qualified nurse educators, leaders seemingly legitimized the proposed change and made the change an important initiative. Eckel and Kezar (2003) recognize putting issues in a broad context as one of the supporting strategies occurring concurrently during transformation.

As noted in the data, the dean of the College of Nursing sought to grow graduate enrollments by offering a doctoral program. Within the context of this study, teaming with the College of Education to offer an existing doctoral program designed to train nurse educators appeared to yield many advantages. The education faculty would be able to lend their expertise to the pedagogy and curriculum courses vital to a quality doctoral program designed to prepare nurse educators. The time required to approve a new program would have been extensive when compared to the time required to modify an existing program. Other institutions in the state offering nursing doctoral programs would have contested the addition of a new doctoral program offered by a competitor. Agreeing to partner with the College of Nursing seemed to also benefit the College of Education. The chair of the educational leadership department hoped to further develop the department and increase graduate enrollments. An interdisciplinary program would allow this to happen.

As documented in chapter two, trends in higher education tend to reflect societal needs. Higher education’s changing purpose and curriculum, the introduction to the elective system, and graduate and professional studies resulted from the need to address external factors and solidify enrollments as the number of institutions and therefore competitors increased. The situation under study appears to be no different. According to the data collected and analyzed for this
study, leaders seemingly pursued an interdisciplinary doctoral program for nurse educators to address the shortage of qualified nurse educators across the country. However, the interdisciplinary program also appeared to address the institutional goal of increasing overall enrollments as well as the graduate school’s goal of increasing enrollments.

Within the context of this study, the merging of the two disciplines did not seem to occur as a result of an effort to promote interdisciplinarity. Since the inception of the interdisciplinary doctoral program, there has been little movement toward interdisciplinarity across the institution with the exception of a hiring program aimed at appointing a cluster of faculty members representing at least two different colleges to conduct interdisciplinary research.

**Interpretation of the Data and the Conceptual Framework**

Transformational change involves five core strategies and 15 supporting strategies identified in Tables 2 and 3 in chapter three (Eckel & Kezar, 2003). Based on the data collected, leaders appeared to apply a variety of those strategies in their efforts to implement an interdisciplinary doctoral program. A number of those strategies have already been addressed in chapter four and previously in chapter five. I will now address the remaining strategies.

Although identified as a core strategy essential to transformational change, the data analysis did not seem to reveal staff development opportunities specifically for those involved in developing and implementing the interdisciplinary doctoral degree program. Through staff development employees gain the knowledge and skills essential to accomplishing the proposed change. Nursing and education faculty and administrators involved in the study did not share information regarding their participation in any staff development intended to provide participants with new information vital for the change initiative to occur. Although faculty
participated in retreats, the retreats were seemingly designed to develop the curriculum and then
evaluate the program in an effort to make improvements.

Leaders appeared to employ visible action to build momentum, keep the change initiative
at the forefront, and demonstrate ongoing progress. According to the data collected, during the
development phase faculty and administrators tried to talk about the program at every faculty
meeting. Now in its eighth year, discussions about the program in those meetings have since
decreased.

Supporting strategies work in tandem with the core strategies. They occur less frequently
and play a smaller role in transformational change but remain an important part of the process.
According to Eckel and Kezar (2003), new interactions support transformational change efforts.
New interactions break routines and encourage creative thinking and new ideas, exposing
participants to different perspectives. Bringing people together in new ways helps promote
communication across campus. New interactions between individuals who typically spend little
time working together help folks understand that they are part of a community attempting to
solve a problem. Based on the data collected, the initial committee tasked with exploring the idea
of an interdisciplinary program, the faculty retreats, the steering committee, and faculty working
together on publications, and research and grant projects outside of the program seemed to
provide the opportunity for new interactions.

Incentives, another supporting strategy identified by Eckel and Kezar (2003), help
motivate individuals to commit time and effort to the change initiative as well as make the
initiative a priority. Based on the data collected for this study, money from the program’s budget
supports faculty travel to professional conferences as well as compensation for dissertation work.
Eckel and Kezar (2003) identify two types of expectations that leaders set when implementing transformational change. The first one pertains to the objectives to be accomplished and the second type refers to priorities and behaviors. People are then held accountable for meeting those expectations. The participants interviewed for the study indicated an understanding of the program’s objective which was to help address the nursing shortage and train qualified nurse educators. The support from administration at various levels seemed to demonstrate the high priority given to this initiative. Within the context of this research study, nursing and education faculty and administrators who were identified and agreeable to participating in the initiative were then held accountable for carrying out the new program’s development and delivery.

Changes in administrative and governance processes also support transformational change (Eckel & Kezar, 2003). Based on the data collected, leaders at the institution under study did not appear to alter any current administrative processes to support the change initiative. However, they referred to existing policies pertaining to an alternative residency requirement and joint appointment between colleges to move the change initiative forward.

In order to avoid too much change too quickly while at the same time demonstrate progress, leaders responsible for transformational change implement the supporting strategy known as moderated momentum (Eckel & Kezar, 2003). Moderated momentum did not seem to be enforced within the context of this study. Instead nursing faculty set forth to offer the interdisciplinary doctoral program as soon as possible.

Long-term orientation, another supporting strategy identified by Eckel and Kezar (2003), occurs when leaders spend time building credibility and trust before engaging in transformational change. Study results did not appear to support evidence of long-term orientation.
Through outside perspectives, leaders gain insight into new ideas and assumptions different from those on campus (Eckel & Kezar, 2003). Leaders share these ideas across campus in an effort to explore different options to advance change. According to the data collected for this dissertation, the use of outside perspectives did not appear as a supporting strategy to transformational change.

Eckel and Kezar (2003) define transformation as intentional, occurring over time, deep and pervasive, and altering the culture of the institution by changing assumptions, behaviors, processes, and structures. Based on the data collected and analyzed for this particular study, the development and delivery of an interdisciplinary doctoral program involving the colleges of education and nursing at a large research institution in the South did not appear to meet the definition of transformational change as described by Eckel and Kezar (2003). However, administrators and faculty implemented many of the core and supporting strategies essential to transformational change and successfully launched an interdisciplinary doctoral program now entering its eighth year. This confirms observations made by Eckel and Kezar who discerned that institutions carrying out these strategies but not transforming, made significant progress in reaching their change agendas. Using the strategies helps institutions embark on change in an environment typically steeped in tradition with structures in place that are often resistant to change.

**Implications for Practice**

This study yielded valuable insights into the development and delivery of an interdisciplinary doctoral program. The following implications for practice were formulated to assist leaders planning to offer an interdisciplinary degree program:
• Provide opportunities for faculty to build relationships by establishing formalized communication processes such as retreats, ad-hoc committees, and dissertation teams. Through these formal communication processes faculty will have the opportunity to learn about each other’s similarities and differences as well as areas of expertise.

• Involve faculty in various aspects of decision making as it pertains to program development and delivery. Formalized communication through regularly scheduled meetings give faculty the opportunity to discuss course content, the sequencing of courses, course assignments, and dissertation preparation to make improvements and address concerns.

• Provide faculty with an appropriate amount of time to prepare courses for delivery to students trained in a discipline outside of faculty’s area of expertise. In this particular case education faculty found themselves in new territory responsible for teaching nurses. A course release, notifying faculty at least two semesters in advance of the delivery term, and temporarily relieving faculty of service requirements are all possible options to give faculty the time they need to develop courses that blend two disciplines.

• Establish a steering committee comprised of representatives from both disciplines to oversee the program and make decisions regarding the program. The committee should meet on a monthly basis.

• Identify an individual respected by peers who is passionate about the program and willing to serve as one of the main points of contact for the program over an extended period of time. This individual can help facilitate interactions between the two faculty groups as well as help keep faculty motivated about the program.
• Provide opportunities for faculty to collaborate on projects outside of the program by including in regularly scheduled meetings for those involved in the program time to brainstorm possible research projects.

• Hire additional staff if needed and provide release time rather than taxing current employees with additional work required for the delivery of a new interdisciplinary doctoral program.

• Develop a way to blend each discipline’s perspectives into every course within the program of study. In this particular study faculty chose to include a teaching and research component in every course in an effort to merge two different perspectives.

**Study Limitations**

The purpose of this study was to understand the experiences of nursing and education faculty and administrators responsible for developing an interdisciplinary doctoral program as well as the experiences of nursing and education faculty who teach courses in an interdisciplinary doctoral program. Therefore, study results and implications for practice are limited to interdisciplinary programs offered at the doctoral level involving education and nursing.

The research was conducted at a large public research institution in the South. The results and implications for practice might differ for other types of institutions located in other areas.

The program’s first cohort enrolled in 2007, making the program seven years old at the time of the study. The memories of those interviewed might be unclear regarding answers to questions relating to the program’s initial development which took place more than seven years ago. Subject participant responses may be skewed to represent only positive memories related to the development and delivery of the program.
Due to the researcher’s time constraints, the study’s sample was limited to a pool of 20 administrators and faculty affiliated with the delivery and development of an interdisciplinary doctoral program involving the education and nursing. Eighteen of those potential subjects agreed to participate. An extended time frame would have allowed for additional interviews increasing the study’s sample size and ensuring saturation of the data. Additional time designated for follow up with each subject participant to ask clarifying questions might have yielded richer results.

The employment status of the researcher in relation to the institution chosen for the study may impact study results. Because I work at the institution selected for the study, participants may have hesitated to speak negatively about the program, their academic units, or the institution.

**Recommendations for Future Research**

Future research should address the study’s limitation. For example, researchers might consider comparing the development of interdisciplinary programs involving other discipline pairings as well as bachelor and master-level programs. Research might also be conducted at different types of institutions located in different areas. To combat selective memory when referring to events that occurred in the past, researchers might consider studying newly launched interdisciplinary programs so that events are fresh on the minds of study participants. Future researchers conducting a study similar to the one outlined in this dissertation should allow time for follow up with the subject participants in order to ask additional clarifying questions to ensure an accurate representation of the data. A longer time frame allotted to conducting the study also gives researchers the opportunity to interview a sample large enough and diverse enough to ensure saturation of the data. Future researchers should conduct the study at an
institution in which they are not employed. This will help to make the participants feel a greater sense of anonymity and speak freely.

This particular study focuses on the development of an interdisciplinary doctoral program. Future studies might center on the experiences of those responsible for the continued maintenance of an interdisciplinary program and what it takes to successfully maintain such a program. Do faculty members from the different disciplines continue to communicate and collaborate with each other after the initial program development phase? Do they revert to old routines doing what they find comfortable? What steps are taken to continue to blend multiple disciplines into one program?

Rather than concentrating on the experiences of faculty and administrators, future research might consider exploring the experiences of the students enrolled in an interdisciplinary program. Do they view the program as an interdisciplinary program, or do they feel like students majoring in one field of study with a course load that happens to include courses from another discipline?

Study results addressed the importance of leadership to the implementation of a successful change initiative. Researchers might consider studying the effects of new leadership and a new leader’s influence on common practices and whether that influence leads to change. Future research might also be directed at the issue of trust as it relates to implementing a change initiative.

Students often choose to pursue the doctor of nursing practice (DNP) which has significantly fewer credit hours than an EdD or PhD program. Because of the shortage of nursing faculty, institutions hire graduates holding the DNP to teach in their nursing programs. Future
research might review the teaching effectiveness of those holding a doctoral degree designed to specifically prepare nurse educators compared to those teaching with an earned DNP.

As discussed in chapter two, students are indoctrinated into their chosen field of study where they gain exposure to a value system specific to the discipline. They are socialized into the language, curriculum, beliefs, and norms of one discipline. Future research might consider interdisciplinary programs and student allegiance to a particular discipline. Do students relate to one discipline over another? Do they leave the program valuing the outcomes of interdisciplinary efforts? Students enrolled in the degree program studied in this research project hold nursing degrees and have been indoctrinated into the nursing culture. The interdisciplinary doctoral program exposed them to the norms and practices inherent to the field of education. What type of value system do students walk away with upon completion of this program? Do they question the value system they developed through their initial training?

The interdisciplinary program studied in this particular dissertation is offered in a non-traditional format with students enrolling in some online courses as well as courses offered in the weekend format. Therefore face-to-face meetings with faculty are on a limited basis when compared to traditional students. Future studies might consider the quality of doctoral programs offered in the non-traditional format. Future studies might also consider the quality of the dissertations written by students enrolled in programs offered in a non-traditional format as well as how students feel regarding the type of support they receive from faculty during the dissertation process when face-to-face meetings are limited. This non-traditional doctoral program requires a modified residency. Students enroll in nine credit hours for two consecutive terms similar to students fulfilling traditional residency requirements, but some of those courses are online and students only travel to campus one weekend per month. They are not able to
interact face-to-face with faculty as frequently as students completing a traditional residency requirement. Future research might consider student and faculty perceptions of a modified versus a traditional residency requirement as it relates to program outcomes.

**Conclusion**

External factors such as the increasing complexity of societal problems, new knowledge production, limited resources, changing student demographics, declining resources, and evolving student needs force institutions of higher learning to adapt in order to remain competitive and continue to increase enrollments and attract quality faculty. External factors have also affected the area of health care. A diverse population, varying patient needs, advances in technology, and new patient care delivery models require a highly trained corps of nurses to work closely with other health care professionals to provide quality care. Interdisciplinarity offers a way to address these external factors meeting the needs of higher education as well as the nursing profession.

This dissertation was designed to explore the experiences of faculty and administrators responsible for designing and delivering an interdisciplinary doctoral program involving the disciplines of nursing and education. Transformational change served as the conceptual framework for this study. Transformational change initiatives help institutions establish lasting modifications necessary to deal with the fluctuating landscape of higher education while at the same time maintaining the traditional values of teaching, research, and service inherent in higher education. Although the change initiative studied for this dissertation did not appear to fit the definition of transformational change as described by Eckel and Kezar (2003), many of the strategies identified as essential to transformational change were used to successfully develop and deliver an interdisciplinary doctoral degree program. Institutions planning a change initiative are advised to apply these strategies to optimize their likelihood for success.
REFERENCES


APPENDIX A

DATA COLLECTION METHODS

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<td>Faculty from the College of Education Teaching in the Interdisciplinary Program</td>
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<td>Faculty from the College of Nursing Teaching in the Interdisciplinary Program</td>
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<td>Documents</td>
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<td>Student Orientation Agendas</td>
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<td>Steering Committee Agendas</td>
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<td>Dissertation Process Proposal and Meeting Notes</td>
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<td>Notes about the Program Written by a Nursing Administrator</td>
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<td>Notes about the Program Written by the Program’s Recruiter</td>
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<td>Notes from Task Force Reviewing Comprehensive Exam Process</td>
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<td>Multiple Versions of the Program of Study</td>
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<td>Policies and Procedures Pertaining to Advising, Admission Requirement,</td>
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<td></td>
<td>Graduate Faculty Appointment, Comprehensive Exam</td>
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<td>Program Proposal</td>
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<td>Program Change Proposal</td>
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APPENDIX A (continued)

DATA COLLECTION METHODS

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<tr>
<th>METHOD</th>
<th>POPULATION</th>
<th>FREQUENCY</th>
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<td>Documents</td>
<td>Student Advising Schedule and Advisor Assignment List</td>
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<td>Dissertation Committee Team Member List</td>
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<td>Dissertation Committee Form</td>
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<td>Program Recruiter Job Description</td>
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<td></td>
<td>Letters Pertaining to Joint Faculty Appointment</td>
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</tbody>
</table>
APPENDIX B
INTERVIEW PROTOCOL

Opening/General Questions
1. How did the idea to offer an interdisciplinary program originate?
2. What was your role in the program’s initial development?

Challenges Faced
3. What obstacles threatened efforts to create an interdisciplinary program?
4. What problems were encountered during the development process?

Tactics Facilitating Development
5. What tactics were successful in facilitating the development of an interdisciplinary doctoral degree program?
6. How was information about the various aspects of program development communicated to faculty?
7. How was a final decision reached regarding the various aspects of the program such as the format, the modified residency requirement, and compensation for faculty serving as dissertation chairs?

Organizational Culture
8. How does offering an interdisciplinary program fit into the college’s/department’s/organization’s culture?
9. How does the modified residency requirement fit into the college’s/department’s/organization’s culture?
10. How does offering the program in a distance learning format fit into the college’s/department’s/organization’s culture?

Transformational Change
11. What resources were provided to launch and sustain the program?
12. What steps were taken to involve faculty in the planning process?
13. What steps were taken to meet the needs of faculty responsible for delivering the program?
14. In what ways, if any, did the program that was finally launched differ from the original plan?
15. What steps were taken to keep participants motivated and informed during the change process?
## APPENDIX C

### CATEGORIES FOR CODING DOCUMENTS

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Times Exhibited</th>
<th>Comments</th>
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<tr>
<td>Maintaining a sense of equality or balance or power</td>
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<tr>
<td>Faculty Involvement</td>
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<td></td>
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<tr>
<td>Communication</td>
<td></td>
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<tr>
<td>Collaboration</td>
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<tr>
<td>Supportive leadership</td>
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<td></td>
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<tr>
<td>Cultural differences between two disciplines</td>
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<td></td>
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<tr>
<td>Navigating institutional policies</td>
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### APPENDIX D

### PARTICIPANT PSEUDONYMS AND TITLES

<table>
<thead>
<tr>
<th>Research Participant Pseudonyms</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Miller</td>
<td>Former Education Dean</td>
</tr>
<tr>
<td>Dr. Smith</td>
<td>Former Provost</td>
</tr>
<tr>
<td>Dr. Johnson</td>
<td>Current Nursing Dean</td>
</tr>
<tr>
<td>Dr. Brown</td>
<td>Current Education Dean</td>
</tr>
<tr>
<td>Dr. Thompson</td>
<td>Nursing Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Davis</td>
<td>Nursing Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Carter</td>
<td>Nursing Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Flynn</td>
<td>Education Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Harris</td>
<td>Education Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Gray</td>
<td>Education Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Long</td>
<td>Education Faculty Member Teaching in Program</td>
</tr>
<tr>
<td>Dr. Williams</td>
<td>Member of Original Committee Responsible for Program Design Representing Education</td>
</tr>
<tr>
<td>Dr. Jones</td>
<td>Member of Original Committee Responsible for Program Design Representing Education and Teaching in the Program</td>
</tr>
<tr>
<td>Dr. Anderson</td>
<td>Member of Original Committee Responsible for Program Design Representing Nursing and Teaching in the Program</td>
</tr>
<tr>
<td>Dr. Taylor</td>
<td>Member of Program’s Steering Committee Representing Education and Teaching in the Program</td>
</tr>
<tr>
<td>Dr. Clark</td>
<td>Member of Program’s Steering Committee Representing Education and Teaching in the Program</td>
</tr>
<tr>
<td>Dr. Lewis</td>
<td>Member of Program’s Steering Committee Representing Nursing and Teaching in the Program</td>
</tr>
<tr>
<td>Dr. Hall</td>
<td>Member of Program’s Steering Committee Representing Nursing and Teaching in the Program</td>
</tr>
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</table>
APPENDIX E

FORMS

April 17, 2014

Kimberly Luzius
College of Continuing Studies
Box 870388

Re: IRB#: 14-OCR-139 “Interdisciplinarity as a Change Strategy”

Dear Ms. Luzius:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on April 16, 2015. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office of Research Compliance
The University of Alabama
THE UNIVERSITY OF ALABAMA
HUMAN RESEARCH PROTECTION PROGRAM
UNIVERSITY OF ALABAMA INSTITUTIONAL REVIEW BOARD

Title of Research: Interdisciplinarity as a change strategy: Understanding the experiences of faculty and administrators

Investigator: Kim Luzius, doctoral student

IRB Approval#: 

OSP #: 

You are being asked to be in a research study.

The name of this study is “Interdisciplinarity as a Change Strategy: Exploring the Experiences of Faculty and Administrators.”

The study is being conducted by Kim Luzius. She is a doctoral student in the EdD in Higher Education Administration program at The University of Alabama.

What is the purpose of this study?

The purpose of this study is to understand the experiences of faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral degree program involving the disciplines of nursing and education that is designed to train nurse educators. The study is also intended to identify tactics that facilitate change as well as barriers to change.

Why is this study important?

Higher education is a changing environment. Colleges and universities need to adapt to stay relevant and compete for students and dwindling resources. Nursing is an ever-changing profession. Nurse educators must provide future nurses with the training they need to work in a team-based environment that is constantly evolving due to new regulations and updated technology. Offering an interdisciplinary doctoral program to train nurse educators provides an opportunity for institutions of higher learning to address the needs of nurses through an innovative change initiative while at the same time provide the nursing profession with the educators they need to prepare an advanced work force.

Why have I been asked to be in this study?

You have been asked to be in this study because you participated in the development of an interdisciplinary doctoral program or you are working or were working in an administrative capacity for a unit responsible for delivering an interdisciplinary doctoral program.
How many other people will be in this study?

A total of 20 individuals affiliated with the development and/or maintenance of an interdisciplinary doctoral program will be asked to participate.

What will I be asked to do in this study?

Participants will be asked to complete a one-on-one interview with the principal investigator. The interview will last approximately 60 minutes and be digitally recorded. The interview will be conducted in person.

How much time will I spend being in this study?

Participants will complete a one-time interview that will last for approximately 60 minutes.

Will being in this study cost anything?

The study will not cost anything other than the time required to complete the interview.

What are the benefits of participating in this study?

There are no direct benefits to be gained by participants in this study. Results from the study will be used to better understand interdisciplinarity as a change strategy and the experiences of faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral program.

What are the risks to me if I am in this study?

There are no risks involved in this study. Your identity will remain confidential, and you may decide to discontinue your participation at any time.

How will my privacy be protected?

The interview will take place in a private location so that others will not overhear the conversation. The principal investigator will not reveal to anyone the names of those participating in the study. You do not have to answer any questions or provide any information that you do not want to share.

How will my confidentiality be protected?

Participant names will only be known to the principal investigator. Names will not be used as identifiers in the research to ensure confidentiality of the participants and the institution. No information will be released that identifies you by name or institution. Printed information from the interviews will be maintained in a locked filing cabinet. Electronic data will be maintained on a password protected computer. The digital recording from the interview will be destroyed one year after the study is completed.
Do I have to be in this study?

No. You can refuse to be in the study. You can also start the study and decide to stop at any time.

If I don't want to be in the study, are there other choices?

If you do not want to participate in the study, the other choice is to refuse.

What if new information is learned during the study that might affect my well-being or decision to continue in the study?

You can decline participation in the survey at any time.

What if I have questions, suggestions, concerns, or complaints?

Please ask if you have questions about the study. If you have questions or concerns at a later time, you can reach Kim Luzius at 205-348-6433 or kluzius@ccs.ua.edu. If you have questions about your rights as a research participant you may contact Ms. Tanta Myles, The University of Alabama Research Compliance Officer, at 205-348-8461 or toll-free at 1-877-820-3066.

You may also ask questions, make a suggestion, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate you are encouraged to complete the survey for research participants found at http://osp.ua.edu/site/PRCO_Survey.html, or you may ask the researcher for a copy of the survey. You may also send an email to participantoutreach@bama.ua.edu.

What else do I need to know?

You do not give up any of your legal rights by agreeing to participate in this study. You will be given a copy of this consent form to keep. Save it in case you want to review it later or you decide to contact the investigator or the university about the study.

The University of Alabama Institutional Review Board (IRB) is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that people in research studies are being treated fairly and the study is being carried out as planned.

I give consent to be audiotaped during this study:

Please initial: __________ Yes __________ No

I give consent for tapes resulting from this study to be transcribed and analyzed in order for the principal investigator to understand the experiences of faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral degree program as well as interdisciplinarity as a change strategy:
Please initial: ___________ Yes ___________ No

The extra copy of this consent form is for you to keep.

SIGNATURE ________________________________

DATE ________________________________

Protocol Approval Date: ________________________________

Protocol Expiration Date: ________________________________

UNIVERSITY OF ALABAMA IHB
CONSENT FORM APPROVED 4/17/14
EXPIRATION DATE: 4/14/2015

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Luzius

Sample Email Inviting Individuals to Participate in Study

Dear [Name]:

I am conducting a study on the experiences of faculty and administrators responsible for developing and maintaining an interdisciplinary doctoral program. The research study seeks to better understand challenges faced when attempting to achieve interdisciplinary consensus as it relates to program objectives and curriculum, tactics that facilitate development of an interdisciplinary academic program, and the way in which organizational norms, structures, and practices affect efforts to develop an interdisciplinary degree program. Your participation in this study will involve an interview lasting approximately 60 minutes and a review of the transcribed interview to ensure that information has been accurately recorded. You are free to drop out of the study at any time. The structure of the study is outlined in the attached consent form.

Your perspective is important. Please consider participating in this research study. Respond to this email if you are open to participating.

Sincerely,

Kim Luzius
Doctoral student in the College of Education (Higher Education Administration)
The University of Alabama
The following telephone script will be used when calling individuals who fit the subject criteria and who have retired from the university as well as when calling those individuals who fit the subject criteria who currently work at the university and were emailed about the study but did not respond to the email.

I'm calling in regards to a research study that explores interdisciplinarity as a change strategy. I plan to interview 20 individuals who participated in the development of or the maintenance of an interdisciplinary doctoral degree program involving the fields of education and nursing in an effort to understand their experiences. The interview should take no longer than an hour. Your answers will be kept confidential, and nothing will be released that identifies you by name. Answering the questions is voluntary. That means you may refuse to take part in the study or, if you decide to participate in the study, you may decide not to answer any questions that make you feel uncomfortable or to stop the interview at any time. I will record our conversation. If you are interested in participating in the study we can go ahead and set up a time and place to meet on campus. We will meet in a private location so that others will not be able to hear our conversation. I will email you a copy of the written consent form for you to review prior to our meeting. I will have a copy of the consent form for you to sign when we meet in person. Do you have any questions? Let's go ahead and set up a meeting time and place.