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ABSTRACT

This paper addresses the following issues concerning curriculum change in professional programs: (1) the degree of influence exhibited by external, internal, and intraorganizational factors as they interact to stimulate curriculum change in three professional programs (business, pharmacy, and accounting); (2) planning strategies used by faculty to examine the curriculum in these programs; and (3) relationships between strategies used by program planners and factors influencing the professional preparation environment. The results of 31 interviews with curriculum committee members of each school, as well as faculty, administration, staff, and students not on the committee are presented. Findings suggest that the requirements of the successful practitioner are changing more rapidly than the professional school curriculum. Among the study's conclusions are the following: that the internal characteristics of each school suggest individualized blueprints for successful change; that programs preparing graduates for a practice requiring licensure focus on preparing graduates to meet licensure requirements; that developmental planning behavior occurs when programs react strongly to external influences; and that the degree of freedom a university allows a program adapting to a changing profession impacts developmental planning. An appendix lists external, internal, and intraorganizational factors influencing change. (Contains 65 references.) (GLR)

FACTORS INFLUENCING CURRICULUM CHANGE IN PROFESSIONAL PROGRAMS

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FACTORS INFLUENCING CURRICULUM CHANGE IN PROFESSIONAL PROGRAMS

Many professional programs are currently undergoing curriculum change (Bilello, 1992; Greene, McCauley, & Pritchard, 1990; Klausmeier, 1990; Miller, 1990; *Physicians for the Twenty-first Century*, 1984; Porter & McKibbin, 1988). As some programs may be influenced more strongly by certain environmental factors than are other programs, the varying degrees of influence and their interactions can create a unique environment for each program and its curriculum. This study examines the varying influence of factors stimulating curriculum change in three professional programs, including the relationship between these factors and the planning strategies used by program planners.

The study builds on two conceptual frameworks--a framework developed by Stark, Lowther, Hagerty, & Orczyk (1986) guides the analysis of factors stimulating change in the three programs. A model produced by Friedmann (1967) guides the analysis of the relationship between the influences on the programs and the planning strategies used by program planners. An analysis of the environmental factors that stimulate curriculum change and guide the outcome of curriculum planning will help program administrators, faculty, and others interested in professional education understand the forces that shape and guide the process of curriculum change.

Conceptual Framework

Stark et al. (1986) developed a framework for understanding the similarities and differences among professional programs. While traditional curriculum change analysis relies on classification of external and internal categories (Seymour, 1988; Toombs & Tierney, 1991; Trinkhaus & Booke, 1980), this research utilizes the framework of Stark et al. by classifying the information obtained into three categories: external, internal, and intraorganizational (see appendix). External factors are those influences originating from entities outside of the university. Internal factors reside within the program itself. And

intraorganizational factors arise out of the relationship between a professional program and the university or college it resides in. The factors in these three categories interact as they influence and shape the professional preparation program. The Stark et al. framework directs the examination and discussion of the factors influencing change in the professional programs, and the varying influence of these factors in the different environments.

Friedmann (1967) developed a model for analyzing planning behavior as falling into one (or more) of the four categories: adaptive, developmental, allocative, or innovative. Adaptive planning behavior "adapts" the needs of the program to fit influences external to the program, because the program is viewed as dependent on the external factors. Developmental planning occurs when the program planners experience autonomy and freedom in establishing their own goals and ways to achieve their goals. When program planners take into account the resource needs of the whole college and plan the program in a way that recognizes the need for balance in resource allocation, they are operating under the pattern of Friedmann's allocative behavior. Under Friedmann's classification, innovative planners recognize the need for using resources to accomplish new goals. Innovative planning attempts to be creative and propose new institutional arrangements to support ideas. The Friedmann model serves as a framework for classifying the strategies that curriculum planners use in planning change in professional curriculum. This model was also used in examining the relationship between the influences on professional preparation environments and the planning strategies used.

Much current literature on curriculum change in the university setting focuses on the undergraduate curriculum, and primarily liberal arts programs. Conrad (1990), Seymour (1988), and Toombs and Tierney (1991) each present important insights into the process of academic change, the development of programs, or the renewal of departmental curriculum. The categorical factors identified in the Stark et al. framework appear in the literature on curriculum change and are mentioned as important aspects of the change process. This study expands the discussions presented by Conrad, Seymour, and Toombs and Tierney in two ways: (1) by examining more closely the environmental influences on curriculum change and the

relationship of these influences to planning behavior (planning behavior and the planning process are the focus of the previous studies); and (2) by examining the process of curriculum change in professional preparation programs.

This study seeks to learn answers to the following general questions:

1) What degree of influence do the external, internal, and intraorganizational factors exhibit as they interact to stimulate curriculum change in three professional programs?

2) What planning strategies were used by faculty to examine the curriculum in these programs?

3) In what ways were the strategies used by program planners related to the factors influencing the professional preparation environment?

Research Design

This was an initial exploration to see if the influences identified by Stark et al. (1986) and the planning behaviors identified by Friedmann (1967) could be used effectively in a professional program analysis. Because the settings in which the frameworks were to be tested required programs in the process of change, a convenience sample was appropriate as long as it provided variation.

According to Yin (1984), a case study design is appropriate for an exploratory study that deals with contextual issues of a current phenomenon. This study included those elements, therefore a case design was used in order to maximize the understanding of interrelationships and influences on the specific programs and the strategies used in curriculum change. A Master of Business Administration program, a Doctor of Pharmacy program, and a combined Bachelor/Master of Accounting program were chosen because they were each in a different stage of curriculum review at the time of the study, they each represent a different profession, they vary in size, and each field is undergoing some level of nation-wide curriculum reform. Two of the programs reside in a large research university in the mid-west. The other program is located at a Doctoral I, religious affiliated university in the west.

Following the format of Yin (1984) and Merriam (1988), three sources of data provided evidence of both construct validity and internal validity: semi-structured interviews; analysis of documents and other materials related to the specific programs; and a review of the literature promoting nation-wide curriculum change in each field. Because each program had a different method for recording events and decisions, types of documents and materials varied from one to another, but the variation added to the understanding of influences that guide planning behavior. Prior to the refinement of the interview protocol, the chairmen of the curriculum committees in the business school and the pharmacy school were interviewed and a current administrator that had been on the accounting curriculum change committee was interviewed. These meetings helped guide the vocabulary and the appropriateness of the questions on the interview protocol for each program. The interview protocol grew out of the study questions, the literature review, and the conceptual frameworks guiding the study. Following our desired stratification of respondents, each chairman and the administrator provided the names of individuals for us to request participation in tape-recorded, one-hour interviews. Through the interviews, we received the names of other people to be interviewed. We conducted 10 interviews in both the business school and accounting school, 11 interviews in the pharmacy school. The following table outlines the stratification of respondents in each program:

	Curriculum Committee Members	**Faculty not on Committee**	**Admini-stration**	**Staff**	**Student**
School of Business	6	1	1	1	1
College of Pharmacy	6	2	1	1	1
School of Accountancy	7	1	1	0	1

As we collected data from the interviews, influences were identified and categorized according to the Stark et al. framework and planning behaviors were placed under the Friedmann model, then factors were identified that appeared to influence specific behaviors. The documentation and literature review were used to support the analysis. In the conclusions of the paper, the findings of the studies are meshed to provide a comparison of the influences and strategies affecting the different programs.

A limitation of this study is that as case studies the cases are representative only of the specific programs studied and other programs with the same characteristics as these. However, by examining each program in this study, readers will better understand the factors stimulating local dynamics of curriculum change, observe the similarities and the differences among the situations, and better understand the professional program settings they are interested in.

MASTER OF BUSINESS ADMINISTRATION

As of 1989, the Master of Business Administration (MBA) curriculum at most of the nation's business schools had been virtually unchanged for over 25 years (Blum, 1991; Schlossman, Sedlak, & Wechsler, 1987). The curriculum at that time had been developed in response to external reports and pressures during the late 1950s and early 1960s. Two prominent 1959 reports, Gordon and Howell's *Higher Education for Business* and F.C. Pierson's *The Education of American Businessmen*, criticized graduate business education for lacking a rigorous curricula and academic respectability. Graduate business schools reacted by introducing a scientific approach to management in their quest for "academic legitimacy" and professional relevance. The current movement aimed at reforming the business school curriculum suggests that the reaction of business education in the 1960s created a curriculum that had a strong technical base, but was slow to react to future changes in the practice of business. In contrast to the business schools of the 1950s and 1960s which revised curriculum in response to external reports, the current reform effort of business schools in the 1980s and 1990s has responded to criticisms originating from within the business community (Blumenthal, 1983; Commission on Admission to Graduate Management Education [CAGME], 1990; Johnston, 1986; Porter & McKibbin, 1988; Schlossman & Sedlak, 1985).

These criticisms cite business schools as using outdated curriculum with: "excessive" emphasis on development of quantitative analysis rather than interpersonal and social factors in decision making; absence of an integrative and interdisciplinary approach to solving problems; lack of global awareness among graduates; deficiency of experience based, active, and problem-oriented learning; indoctrination of a short-term view in graduates; lack of communication, leadership, and ethical skill development. Studies critical of business schools indicated that a difference exists between the training received by MBA students and the needs of corporations.

THE BUSINESS SCHOOL[1]

The Business School MBA program under study recently implemented[2] seven "innovations." In 1987, the school restructured its MBA Review Team in an effort to evaluate its current program according to the needs of its customers and recommend changes. The Review Team looked for areas the program could better prepare its graduates "to be the most productive people in organizations." The team's chairman conducted numerous surveys of students, faculty, alumni, and employers of the school's graduates. He also visited other business school campuses to find out what they were doing to change curriculum. Survey input indicated that the then current curriculum had become outdated and was troubled by a number of shortcomings: graduates were well equipped with quantitative skills, but lacked practical experience, inter-disciplinary problem-solving, and interpersonal skill development.

Another aspect of the curriculum that appeared to be outdated was that the traditional business school curriculum--and this school's until 1991--taught basic technical skills and knowledge in structured, well-defined courses labeled the "MBA core." Yet the problems graduates were facing in managerial roles were not identifiable as "operations management" or "marketing" problems, but rather problems were coming with multifaceted dimensions and interfaced several areas of concern. In response to the input and evaluation, the school developed seven "MBA innovations:" (1) an experimental pilot program gave a faculty team the power to make curriculum change decisions; (2) an international emphasis by requiring students to take an international business course during their first semester, and then offering students an expanded set of international experiences; (3) a "global citizenship" program that

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1 In order to preserve anonymity, the three schools studied will be referred as the Business School, the College of Pharmacy, and the School of Accountancy. Likewise, citations referring to specific people will be cited by their title only.

2 Toombs and Tierney (1991) and Seymour (1988) both acknowledge that there are different stages to the curriculum change process. This paper will refer to three stages: (1) initiation--recognition of a need for change and the formulation of a plan or solution; (2) implementation--execution of a pilot program; and (3) institutionalization or termination--acceptance or defeat of the plan.

facilitates the development of students' understandings of inter-relationships between business and society through a two-day "intense...experiential, cycle of action, reflection, and discussion;" (4) a student information and networking system enabling students to track their career development and conduct self-appraisals; (5) a multi-disciplinary action project (MAP) that places student teams of six or seven, under the direction of an interdisciplinary group of faculty, at business locations for seven weeks to analyze a process and identify opportunities for process improvement; (6) executive skills workshops help develop students' personal and professional leadership skills; (7) a new curriculum model offering courses in seven week segments with the traditional 14 week courses to offer students more flexibility in course selection. First year core are taught in seven week segments, followed by MAP during the last seven weeks of the second semester. Second year electives are offered in both seven and fourteen week segments ("Global," "MAP," "MBA innovations," 1992/92).

The following analysis will identify and analyze the strengths of various influences affecting the MBA environment and the relationship of these influences to the planning behaviors used by the MBA Review Team.

EXTERNAL INFLUENCES

The external influences of the Stark, et. al. (1986) framework are divided into two subgroups--"society at large" and "the relevant professional community." Each of these subgroups contain specific factors influencing the environment. This section begins by examining general societal influences and relevant professional influences, and then explores the interrelationships between the two subgroups.

Society at Large

Rankings. In all but one of the interviews conducted, interviewees identified the 1988 *Business Week* national ranking of business schools as a major stimulus for change in the school's curriculum. While national rankings are not found among the elements of the Stark et al. framework, they not only are a significant external influence but they also affect several categories--reward system, marketplace for graduates, and media. These categories in turn

affect the number and quality of students applying to professional programs. The rankings also significantly affect funding available to the school. (Since the vast majority of funding at most business schools comes from private sources such as corporations, alumni and school endowments, rather than specifically using the government funding category identified in the Stark et al. framework, this analysis will generalize funding to mean all types of funding provided for a professional program.)

The 1988 *Business Week* national rankings undermined the previously established notion of which business schools were thought to be the best. Prior to 1988, business school deans, faculty, and top executives (CEO's) responded in various opinion polls as to which MBA programs they felt were the best. These opinion polls then determined business school rankings. The schools with the highest and longest standing reputations for scholarly work consistently came out on top (Byrne, 1990).

In 1988, *Business Week* pollsters began interviewing students and recruiters as a first step in attempting to devise a more accurate ranking of the best MBA programs. After the interviews, surveys were sent to students, faculty, alumni, recruiters, and deans. Survey questions no longer asked for opinions on which schools were the best, but addressed topics such as teaching excellence, curriculum relevance, and the value of graduates to corporate America (Byrne, 1990). Even though the school under study retained its position as a top 10 program in the new *Business Week* rankings, many of the respondents indicated that a resulting shift in position of several of the other top schools largely affected their program. The new method for giving business schools top honors prompted business school administrators to reconsider their priorities. The ranking's survey purportedly reflected customer satisfaction more than prestige as measured by deans' views. As a result, business schools could no longer expect to receive top rankings based on prior reputation or the prestige of faculty. Schools desiring to move up in the rankings now were forced to evaluate how well they were serving their two markets: students and ultimate employers.

Reward System, Marketplace, and Media as They Influence Applicants. High rewards and the availability of a graduate's preferred marketplaces attract students to a school. Top schools' graduates earn high salaries and graduate with the most job offers (Byrne, 1992). Therefore, salary and job offer figures affect a schools' recruiting processes.

The media presents the rankings and portrays a picture to the world of which MBA programs are the best, and why. Salaries, job offers, names of employers, ratings on teaching, and the success of a school's graduates are all depicted in the media to prospective students, parents, alumni, and corporations. The image the "customers" receive not only directly affects the number and quality of students attracted to the program, but also the number and quality of recruiters of the students. According to one respondent,

> What we do has a lot to do with the focus on the public image of the MBA. We have to be concerned with our place in all markets--students, employers of our students, loyalty of alumni, executive education. So we try to get a good image out in the world that says we're the best trainer of people in business. We view the basic principles of the Business School as a business. We have markets we have to compete in--particularly in competing for the best employers of our students. Some people are not concerned with that, but we are out of business if our students don't get anything when they get out.

In the 1990s, the ability of a business school to attract top students is becoming increasingly essential to its success. During the 1970s and 1980s, the elevated reputation of business schools, along with reward systems for business school graduates (job opportunities and salaries), and several other minor societal factors combined to provide an influx of students into MBA programs. In the late 1980's, enrollments leveled-off and are predicted to decline through the 1990s (Porter & McKibbin, 1988). At the school under study, the number of applicants to the MBA program rose by 85% from 1979 to 1990 (*Business School Annual Report*, 1991; *Update*, 1980). Between the 1990-1991 school year and the 1991-1992 school year, applications rose only 5% and were predicted to remain flat throughout the early 1990s (*Business School Annual Report;* Dean, May 12, 1992).

The school's MBA program reacted to the leveling pattern of enrollment and to the new ranking system by adjusting to market demands on business education in order to continue attracting top students. Currently, the MBA program accepts 900 applicants in order to get a class of 400. In other words, only 45% of applicants accepted actually matriculate into the program. These figures indicate that school is many students' second choice, with their top choice being schools ranked higher nationally (Dean, November 22, 1992). The innovations appear to have been designed in part to make the school a first choice among students, by building a higher recruiter base, higher salaries, more coverage in the media, and a higher overall reputation.

Funding. In the last few years, business school funding has especially been affected by the reputation of the school. Sizable additions to endowments and increases in tuition common in the 1970s and 1980s virtually stopped as business schools approached the 1990s (Blum, 1991; Dean, May 12, 1992). For this school, the new rankings established the largely endowed private schools as its competition for students and employers. The connection between performance and resources is therefore more direct now than it has been in previous decades ("*Business Week* Survey," 1989; Dean).

Executive education programs receive rankings similar to those the MBA programs receive. This school's executive education program received the number one ranking in the 1988 *Business Week* survey, and has maintained that rank in subsequent ratings. The reputation of the school's program attracts many corporate executives and pulls in large resources for the school, which filter into the MBA program. Excess funds from the executive program provide operating expenses for the entire business school. This source of funding will be addressed more specifically in intraorganizational influences.

By maintaining a high reputation in their executive education program, improving faculty research, and establishing recognition in other degree programs and in their research centers, the Business School hopes that resources will "flow into the school." The Dean defines desired resources as (1) the best faculty and students, (2) funded research, (3) private

support, (4) tuition money, and (5) executive education revenue (Dean, May 12, 1992, p. 8-9). All of these inputs originate from sources external to the school, except possibly tuition money. One private establishment recently presented the Business School with a $30 million grant--one of the largest private grants received by a public university. The founder of the corporation told the Dean that the number one ranking of executive education strongly influenced his decision to provide this school with the grant, because the ranking indicated that the "Business School has demonstrated that it is the very best at management education" (Dean, May 12, 1992, p. 3).

The Relevant Professional Community

Professional Associations and Environmental Factors that Affect Knowledge Base. In the late 1980s, as in the late 1950s, two reports were strongly influential in initiating curriculum change efforts. *Leadership for a Changing World* (1990), sponsored by the Graduate Management Admissions Council (GMAC), and *Management Education and Development* (1988), sponsored by the American Assembly of Collegiate Schools of Business (AACSB), both identify reasons for future change in management education and then make recommendations based on those reasons. The GMAC report summarizes in three points the major influences on the future trends in management: (1) accelerating rates of change and complexity in technology, (2) globalization of market, communication, human resources, and (3) increasing demographic diversity (CAGME, 1990). The AACSB report indicates that the most crucial point of future influence "is the continuing change from an industrial to a service and information-oriented society" (Porter & McKibbin, 1988, p. 80). In both reports, and in other literature calling for curriculum reform in business education, the greatest need for change appears to be the development of an adaptive, flexible, and innovative curriculum that will respond to the rapidly changing business community of the future (CAGME, 1990; Johnston, 1986; Nyre & Reilly, 1979; Porter & McKibbin, 1988).

The changing technological, communication, and demographic characteristics of society influence the professional preparation environment in a number of ways. The knowledge base

that business professionals deem necessary for success in the business world has shifted from quantitative and functional knowledge to a triumvirate base of: interdisciplinary problem-solving abilities; quantitative and functional knowledge; and communication, interpersonal, and lifelong learning skills. The shift in businesses toward a stronger client orientation has resulted in more service-oriented practices, and many schools are now cooperating with corporations to provide case studies and practice settings for field experiences.

The school's faculty expressed a sense or feeling that the overall program was not exactly meeting the needs of businesses. And according to one faculty member, "We have a responsibility toward quality control. We need to make sure that [our graduates] can do the things that employers expect them to be able to do." The Porter-McKibbin (1988) report had already been distributed when the MBA Review Team was organized, and the business community was waiting for the release of the GMAC (1990) report. Business school faculty indicated an awareness of the changing environment--the declining numbers of applicants and funds, the changing needs of the business community, and the changes being made in other top business schools. As the Business School conducted a review of the program, it garnered information through surveys with the professional community, alumni, and employers of its graduates. Findings from these surveys agreed with the basic results in the Porter-McKibbin study.

The main theme of the surveys conducted by the school was the need for the formulation of integrative study and active problem-solving experiences. According to the survey, MBAs in the "real world" are presented with problems encompassing a wide array of functional fields, rather than neatly "packaged", discipline-specific problems typically presented to MBA students in professional schools. Therefore, in many situations, successful problem-solving requires the manager be able to identify multiple sources of the problem (Macnamara, 1990; Porter & McKibbin, 1988). The business community also communicated to the school that their executive education program represented the "best" in management

training, so the school looked to the executive program for ideas that could be implemented into the MBA program.

Accreditation. Business school accreditation standards also acknowledge the changing attitude toward business education. In the preamble to the revised 1992-1993 standards, challenges faced by management education are presented as a "mirror" of the challenges faced by organizations and managers. The standards attribute the challenges to growing global economic forces, conflicting values, advancement in technological products and processes, and demographic diversity among employees and customers (AACSB, April 23, 1991). According to the AACSB, management educational programs must focus not only on the present, but also on preparing for the future and each school should emphasize "conceptual reasoning, problem-solving skills, and preparation for life-long learning" (AACSB, p. 3).

After receiving criticism that the standards were to rigid, out-of-date, and emphasized research at the expense of teaching, the AACSB revised the standards in April of 1991 (Evangelauf, 1991). The new standards differ from the old guidelines in several ways that reflect the societal trends influencing business professionals. For example, the revised standards place an emphasis on teaching and require demographic diversity among the faculty. In the curriculum, graduate business programs must now provide perspectives on ethical and global issues, and teach the context of business along with the impact of demographic diversity on organizations. Basic skills in written and oral communication, quantitative analysis, and computer usage must be demonstrated by graduate students, but may have been acquired from prior experience. The curriculum is also required to integrate core areas and apply cross-functional approaches to organizational issues (AACSB, 1990-92, April 23, 1991).

The wording of the revised standards closely resembles the wording in the Porter-McKibbin and the GMAC reports. Since the AACSB commissioned the study done by Porter and McKibbin, the resemblance is not surprising. However, the question of how influential the accreditation standards are on the environment remains unclear. Accreditation is voluntary, and of the 680 AACSB member schools in 1991, only 280 of them were accredited

at the time of this study. For schools competing for top rankings, other external factors appear to have motivated them to react before the accrediting body decided to change the standards. For schools new to membership in the AACSB, and possibly for those struggling to meet financial demands in times of flat or declining enrollment, the revision of the accreditation standards could have a more direct influence on curriculum change.

Because this business school began planning for innovation two years before the AACSB revised the accreditation standards and because accreditation was not mentioned once in any of the interviews, it most likely was not affected by the AACSB's plans to revise its standards. Given the corporate world's indifference to accreditation of business schools (Porter & McKibbin, 1988), and the school's already strong reputation, the renewal of accreditation status would probably not affect its success in fulfilling its goals. However, the importance of accreditation to the school is not entirely clear. In the early 1960s, the Business School underwent great efforts to regain accreditation after losing its accreditation status (Faculty Member, February 28, 1962). In the front of the school's Bulletin is a statement indicating the Business School is currently fully accredited (*University Bulletin*, 1991).

Summary. National rankings establish a business school's reputation. Even though rankings are not included in the framework, the ranking system interacts with many elements of the framework--the reward system for graduates, the marketplace for graduates, the media representation of graduate schools. Reputation attracts resources, and resources allow for future improvements and "innovations." Both the reputation of the program and the system for deciding the reputation influence the preparation environment by dictating how a business school will attract quality students, employers, and funds. As these factors flow through the model to produce educational processes and outcomes, the outcomes then form reputation.

Reacting in such a strong way to the ranking system, using the Friedmann classification, the school exhibits very adaptive behavior. They responded to input from persons outside the program, and planned changes that would be opportunistic in the polls and

ratings. Their "innovations" are, however, somewhat innovative by tying into their already existing executive education program to provide new experiences for the MBAs.

The professional community interplays with society as it influences the business education environment. Reports, criticisms, and accreditation standards outline the societal influences, not found in the framework, of rapidly changing technology, demographic diversity, and global interaction as affecting business practice and the knowledge needed for successful business practice. These factors create a revised knowledge base that the MBA program is expected to develop in the students. The reports and accreditation standards appear to have minimally affected the school, however its innovations do react to the societal influences identified in these documents, but as a result more of surveys and opinions.

As a school's alumni and employers of graduates complete surveys that are reflected in national rankings, their opinions and experiences affect the attitude of society at large toward this school. As members of the Review Team visited other campuses, listened to faculty, and surveyed employers, students, and alumni, the team devised the seven "innovations" responding to the influences of society as they have affected the professional community and the business education environment. Again, they adapted to the needs of the professional community, but in an innovative way as devised their own strategy for implementing the learning objectives that would include the development of the necessary knowledge base in their students.

INTRAORGANIZATIONAL INFLUENCES

Influences from the University and the Business School played an important role in the initiation, implementation, and design of the curriculum changes. The following analysis of the intraorganizational influences affecting the MBA innovations addresses the University's role first, and the school's role second.

University Influences

The organization of the University sponsoring the Business School is very decentralized, and deans at the University experience a great deal of decision-making power.

Several interviewers indicated that the ability of the Dean to make and carry out decisions played an influential role in initiating the MBA changes. According to one faculty member, because the Dean, not the department chairman, hires new faculty and determines salary increases, when the Dean presents a faculty meeting speech in support of giving the Review Team complete authority to make decisions, a faculty member will not raise his or her hand and say that he or she opposes the idea. Furthermore, several faculty pointed to the role of Dean in providing support to the MBA program through the executive education program. When the current executive education program was established under the direction of the previous Dean, the school successfully negotiated with the University to keep all of the revenue from the program in the Business School. The importance of funding from the executive program to the successful implementation of the current innovations will be discussed later under Business School influences.

Administrative details as well as the semester structure of the school year affected the design of certain aspects of the innovations. The seven week courses divided the traditional 14 week classes into two halves, with three credit hour classes awarded for the semester long courses divided up into two 1 1/2 credit hour segments. The university computer program for recording the accumulation of credit hours was not set up to accept half credit hours and additional work was required of the admissions office in the School of Business Administration to help the registrar's office adjust to the half credit units. One interviewee mentioned 10 week courses would have been more natural (10 weeks represents a typical quarter-term system) and may have accommodated the registrar's office by offering courses with whole number credit hour awards, however, the University operates on a semester system, and so the school was limited in how it divided courses.

School of Business Administration Influences

Program interrelationships aided the MBA changes in several ways. The establishment of the executive education program provided ideas and funding while the School of Business developed clear goals and a mission of what it wanted to accomplish.

Executive Education. When the University's executive education program was identified as the best executive program for management education, the MBA program looked at the executive program strengths to see what could be implemented at the MBA level. The use of successful methods from the executive program put the school at an advantage over other business schools that do not have a top executive program to draw successful ideas from. The executive education program also provided for many of the financial needs of the MBA innovations.

The relationship between reputation of business schools and available funding previously mentioned seems to apply well to this school. For example, the reputation of their executive education program has attracted invaluable funding for the MBA program. Business schools that have successfully relied in the past on a large and well established base of private contribution but have no executive program have recently seen a tremendous decrease in annual contributions. Subsequently, many of these schools have not had the funding to implement curriculum change and partially as a result have fallen in the national rankings. In an interview, the Dean indicated that recent MBA innovations require about $400,000 annually to run and are funded directly from the executive program.

Mission and Goals. On September 6, 1991, in an address to faculty the Dean stated the goal of the Business School would be to "strive to be the very best business school in the world, and to be recognized as such" (Dean, May 12, 1992, p. 1). The mission of the school, as identified by the Dean, was "not only to generate valuable knowledge and educate students...rather...[their] mission as the best business school is to lead. ...lead in ways that produce change and improvement." The statement announced that being the "best" did not mean the Business School would be number one in every category of the rankings, but rather it would be number one in a good portion of the reports and would be consistently ranked highly. For the curriculum, this means that "innovations" will occur in order to ensure that students consider their experience of better value than their colleagues at competing schools.

Summary. The current efforts of the MBA program are closely related to the goals the Dean has outlined for the program. In order to achieve the Dean's mission of becoming the "best" business school, the MBA program is drawing on program interrelationships as part of the drive for superiority. The MBA program has developed a focus on customer satisfaction--through surveys, through emphasizing better teaching, and through improving its public image in an attempt to attract stronger students. When the school improved its position in the 1992 rankings, (Byrne, October 26, 1992), several interviewees noted that the improvement in the rankings was not as important as the attention the story in *Business Week* gave to the innovative curricular changes they were making. A common mission does appear to exist among many in the school's organization--that of becoming known as "the best in management education." The school appears to be attempting to reach this goal by adapting curriculum in response to input from external sources and with help from intraorganizational sources.

INTERNAL INFLUENCES

The internal structure of the MBA program and the process used to reform the curriculum also influenced the preparation environment. Influential internal program elements noted by interviewees included the mission of the program, the leadership supporting change efforts, the decision making process, the size of the student body, and the controversy surrounding the change.

Mission. The mission and ideology of the MBA program is closely aligned with that of the Business School. The MBA program is striving to be the "best" in management training. For the MBA program that means seminars on developing executive skills and an experience integrating theory with practice. Toombs and Tierney (1991) list seven disincentives for academic change. One of them is that an institution's reputation is generally based on the institutions history rather than on innovation. When the 1988 rankings came out, and the system for measuring reputation changed from analyzing history to measuring customer satisfaction, the program experienced an incentive to change. Becoming the "best" in large part is now measured by how well the program has changed to meet the needs of its customers.

Leadership. Understanding the background of the key people involved in the curriculum change effort is important in understanding the role they played as initiators of change. The Dean, after working as a faculty member and then leaving to work in industry for six years, rejoined the school as Associate Dean in 1987. During his first year, he oversaw the Bachelor of Business Administration (BBA) program and faculty development. One year later, he was also given responsibility for the MBA program. In an interview, he indicated that from his experience in industry he believed that the MBA program could do a better job of preparing graduates for employment needs.

After he was assigned to the MBA program, he met with a half dozen of the school's most influential faculty to introduce his ideas to them. Described by the Dean as a "disaster," the meeting was marked by faculty indicating they did not appreciate being told by someone who had been on the outside that their program needed changes. At that point, the Dean stepped back and assigned key people (including those influential faculty) to investigate the MBA program to decide if and what changes needed to be made. In doing so, he set the stage for the dramatic changes that became known as the MBA "innovations."

Many of the faculty indicated that the Dean, though removing himself directly from designing and implementing innovation, remained the strongest "outside" supporter of the innovations in faculty meetings and in the media. The Dean also helped to promote faculty involvement and input in two ways. First, he turned the initiation, design, and implementation over to a faculty team. Second, in 1991 he personally met with every senior faculty member to discuss their ideas and concerns about the innovations. Notes from these meetings were transcribed and a research assistant was hired to discover themes among faculty input. In his May 12, 1992 speech to the faculty, the Dean demonstrated that faculty do have input by highlighting some of these themes, and indicating how these themes were directly impacting the school's direction.

The MBA Review Team assigned with leading curriculum innovation efforts was set up in 1989 and was comprised of the chair of each department, a student representative, and an

administrative officer (Associate Dean, September 25, 1992). One respondent described the composition of the Review Team as "powerful, able to stand on its own merit," and "well-chosen." Many of the interviewees attributed the success of the change effort to the fact that the MBA Review Team chairman, who championed and drove initial change efforts, had a strong personality and became capable of making changes very quickly with the support of the Dean.

Decision Making Process. The chairman of the MBA Review Team conducted the surveys of internal and external influences and evaluated the information he had accumulated. The MBA Review Team presented proposed "innovations" to the faculty in 1990, one year after the team's formulation. Lindquist (1974) identifies the pluralistic nature of the power to implement academic decisions as an obstacle to innovation. The Review Team overcame this obstacle. They requested and were granted the authority to make decisions regarding the implementation process.

The power granted to the MBA Review Team created strict lines of authority that Seymour (1988) asserts are needed to reduce possible resistance and conflict during implementation. The team proposed that after two years of experiment, the faculty would vote on whether or not to institutionalize the innovations. Once the approval of the pilot program was granted, the Review Team could make changes without going back to the faculty for two more years. One respondent explained the importance of that action,

> The team decided early on to go to the faculty with a mandate for change and experimentation without the details. The faculty bought into a sketch of the model rather than a full-blown model. Our philosophy was that the faculty are used to destroying full-blown models--their job is to criticize models. We developed a practical scheme as opposed to developing a perfect model that all could agree on. Once the experimental mode was established, then we could try things out through trial and error.

Program Structure. One faculty pointed out that the size of their MBA class created an advantage for the school relative to other schools that wanted to imitate the innovations. The Multi-Disciplinary Action Project, placing teams of six or seven students on-location at

company sites. would be difficult to implement at a school with a larger first year student body than this school's class of 420 students. Coordinating 60 student teams, 60 company contacts, 60 projects. and 60 sets of travel arrangements created by MAP is an incredibly complex task. At one of their competing schools, with a 1990 first year class of 750 (Ewing. 1990), this same project would incorporate 125 teams--a 78% increase. The smaller size of this school's program allowed implementation of the most comprehensive aspect of its recent curriculum change effort.

Curricular Tensions. In the faculty interviews, the controversy most commonly identified regarded the realism of establishing seven week courses. The proposal of implementing seven week courses included two opportunities for faculty: (1) increased research time through spending seven weeks teaching and then seven weeks doing research, and (2) increased faculty choice in formulating courses offerings normally not comprehensive enough to take up an entire fourteen week course. However, two of the respondents indicated that some of the traditional classes do not seem to be working well in seven week segments; several instructors are unhappy and course evaluations in some areas have significantly decreased. One respondent suggested that the seven week course innovations should be considered on an individual class basis, recognizing that some courses are not as well suited for a seven week segment as other courses.

The controversy does influence the environment. Faculty and students expressed concern in interviews that some faculty are unhappy with the structure of seven week segments, and the quality of some of the classes has been compromised. Whether or not this controversy will affect the future modifications of the curriculum is yet to be seen.

Other Influences. Other internal factors influenced the environment surrounding the changes in the MBA program. The school's students are traditionally older and come to their program with more work experience than they did five years ago (*Business School Annual Report*, 1991). Arguably, this work experience provides them with skills taught in the previous core courses, possibly enabling the school to "cut back" required core courses. A

second factor is that the MBA degree is strictly a 60 credit hour requirement. Any added field experiences or courses must remain within the 60 hours for the school to compete for students.

Evaluation. The MBA program uses several methods for evaluation. In addition to the previously mentioned surveys of faculty, employers, and alumni, students are surveyed at the end of each term and during the pilot program each student was surveyed regarding the element(s) of the program he or she was involved in. Students also complete course evaluations, generating standardized rating of the teaching abilities of each professor in the school. These ratings, kept on file in the library and published each semester in the school newspaper, play a large role in student's course selection. The media and national rankings, unhesitant to indicate what they believe society expects from business schools, also serve as a tool for evaluation. The influence of the evaluations on the environment surrounding the innovations is yet to be seen, however, the influence of previous program evaluations were in part responsible for initiating the most recent changes and it is likely that evaluation influences will continue to be strong.

Summary. The internal leadership influences on the environment in the MBA program facilitated the initiation and implementation of curriculum change. The Dean joined the Business School with ideas in hand before the two influential reports (1988, 1990) were available. These two reports then added to the atmosphere for reform that the Dean had stimulated. The program renewed its mission to serve customers--both internal and external--in a way that was adapted to fit the external influences of rankings and criticisms. The influence of curricular tensions and evaluation methods identified in this report are not yet realized. Other internal influences may exist, but strong connections between other influences and the changes were not found in this research.

Underlying the MBA program changes is the assumption that by adapting to current criticisms of business education, the school will produce the most successful managers in organizations. Also underlying the changes is the school's belief that by producing the most

successful managers in organizations, the market, reward system, funding, and rankings will reflect and reward this success.

CONCLUSION

In this analysis, external societal forces appear to constitute the key underlying drivers of change in the business profession, and the national ranking system appears to be the strongest influence stimulating change in business education. Rapid change in technological, demographic, and global characteristics of society alter the knowledge base needed for successful business practice. The change in the knowledge base during a period of unchanging business education prompted the professional community to criticize business education and revise accreditation standards. At about the same time that the Dean first recognized these external influences and tried to introduce his ideas to the faculty, the national system for ranking business schools also changed to attempt to reflect how well business schools were meeting the needs of society. Because the Dean had prompted the faculty to review the curriculum, and because the rankings affect applications, enrollment, and funding, the school reacted to the changing environment by altering its mission to better serve its customers. Reacting to these external influences, the school displayed planning that falls under Friedmann's adaptive mode of behavior. They identified the recommendations of the external entities that they are dependent upon, and then adapted their program to meet those proposals.

The institutional characteristics of the University, program interrelationships, and the governance patterns of the Business School provided the structure, information, and funding needed to produce change. The school's mission, the leadership supporting and driving the change, and the structure of the student body facilitated initiation and implementation of the changes in response to external reports, rankings, and surveys. As the school adapted to the external influences in designing goals and in stating a mission, they also exhibited an innovative behavior in identifying existing resources that would then further those goals.

DOCTOR OF PHARMACY (PHARMD)

Like most health care related fields in both industry and education in the United States, pharmaceutical education is currently in the process of undergoing significant change. Specifically, pharmaceutical educators nationwide are rethinking their curriculum. Most recent studies of pharmaceutical education highlight the problem that seemingly is driving the efforts of these educators: the education of health professionals has not changed rapidly enough to meet the needs of a newly emerging and rapidly changing health care industry. For example, the Pew Health Professions Commission, formed to study the implications of recent health care trends, found that "the education and training of health professionals is out of step with the evolving health needs of the American people" (The Pew Health Professions Commission, 1991, p. iii). In another study pharmaceutical educators in conjunction with the American Association of Colleges of Pharmacy (AACP) conducted an extensive review of the role of pharmaceutical education in preparing pharmacy practitioners. The study concluded with a comprehensive mission statement for pharmacy practitioners that clearly stated the need for significant change (Commission to Implement Change in Pharmaceutical Education [Commission], November 1991).

In 1991, the Commission for the Implementation of Change in Pharmaceutical Education--established by the AACP in 1989 to develop "a series of recommendations to guide pharmaceutical education as it evolves to meet the changing demands of the profession, the health care system and society" (Commission, November 1991, p. 11)--released a position paper suggesting that the AACP raise the accepted entry-level degree for pharmacists from the Bachelor of Science in Pharmacy degree to the Doctor of Pharmacy (PharmD) degree in conjunction with the revision of accreditation requirements. This suggested change was in response to a newly adopted mission for pharmacy that included "pharmaceutical care." The concept of pharmaceutical care incorporated aspects of health care that pharmacists have often not had to provide. Pharmacists practicing under the pharmaceutical care model would find themselves not only dispensing drug products but also rendering services such as counseling

patients, monitoring drug use, and working with the prescriber on patient therapy. The notion of pharmaceutical care was released prior to the release of the full report and had already been accepted by the AACP as the mission for pharmacy practice and as a guideline for the education of pharmacists.

Between 1986 and 1991, many articles in the AACP's journal, *The Journal of American Pharmaceutical Education*, stressed the importance of preparing pharmacists for the changing nature of the profession by incorporating educational processes into the curriculum that would develop problem-solving and critical thinking skills in students and thus enhance life-long learning (for example, see Bootman, 1987; Chalmers et al., 1987). Articles identified the following factors as stimulating a need for change in pharmacy education: a shift toward a more comprehensive patient orientation within the profession; the rising costs of health care; the expanding scientific knowledge base; and changes in the nation's disease patterns and population demographics. Educators suggested a number of actions in response to the above factors, including: evaluation of courses and entire programs as they relate to the knowledge base needed to practice pharmacy, reconstruction of state licensure exams, revision of traditional methods of instruction (lecture format), the development of mission statements that incorporate specific outcome goals and objectives, achieving a desired mix and background of faculty, and exposing students to certain practice settings (Chalmers, 1988; Chalmers et al., 1988, 1989; Cocolas, 1989; Cohen, 1988; Nappi, 1992; Plein, 1992; Schwab & Paavola, 1992; Triplett & Aceves-Blumenthal, 1992).

THE COLLEGE OF PHARMACY

The college of pharmacy in this study admits 55 new students each year and has an enrollment of fewer than 300 students, making it a small college in comparison to other colleges of pharmacy. The college graduates approximately 47 students each year (which will increase to between 50 and 55 in 1994), compared to two other colleges of pharmacy in the state--one graduating 70 to 80 students, the other approximately 200 students. Ten years prior to this case, the college went through its most recent major curriculum revision when it opted

to only offer the PharmD degree and discontinue its Bachelor of Science in Pharmacy program.

In the Fall of 1991, the Dean of the college reorganized the curriculum committee, appointing a new chair and charging the new committee to review the curriculum with the following objectives: ensure that the curriculum meets the needs of pharmacy for the year 2000 and beyond by considering national movements in education and changes in the profession. The committee first began by developing ideas about incorporating problem-solving and critical thinking experiences into coursework. According to respondents, these ideas had been considered in previous years, but were never implemented because the faculty resisted change efforts through "passivity." Even former committee members were reluctant to implement change in a program that maintained a reputation as one of two national leaders in pharmaceutical education.

The new committee decided early on that they wanted all faculty involved in the review. The activities of their first year culminated with a faculty retreat in June--97% of all faculty members attended. A university administrator spoke first, applauded the college's efforts, yet discouraged the faculty by reminding them that the university awarded scholarly production--not teaching. Next, the chairman of the AACP spoke. Prior to the retreat, the committee chairman had distributed to the faculty articles produced by the AACP commission outlining the AACP objectives for pharmaceutical education. The speaker encouraged faculty members to incorporate these objectives into their courses and renewed some of the lost momentum. A scholar in higher education then talked to the faculty about designing curricular content based on the abilities the faculty wanted students to have when they finish a course or a program.

At the retreat, the faculty divided up into groups and developed their own definition of "pharmaceutical care"--one that all of the faculty could both agree to and support. Goals were also set to translate the definition into curricular objectives.

The committee hoped that the retreat would foster a better understanding of the educational issues among faculty and stimulate them to more fully participate in the ongoing process of

curriculum review. As the curriculum committee talked to faculty members at the retreat, they found that faculty members expressed concerns about the lack of a reward system to compensate them for undergoing any proposed changes. As this appeared to be a fairly significant issue, the committee asked the Dean to appoint another committee to address the issue of evaluating and rewarding teaching. In January, the curriculum committee asked each discipline to evaluate their current courses in the PharmD program according to how they related to the goals identified at the retreat and report back to the committee in May.

That first year the committee consisted of five people with one person from each discipline. The new chairman asked that the former chair rejoin the committee. The new chairman then asked that influential faculty members able to motivate and influence others also join the committee. These additions expanded the committee so that it then included two people from each discipline, the director of continuing education, and three students--one each from the second, third, and fourth years of the program. The expanded committee then compiled the notes from the retreat. Using the notes while embracing the broad definition of "pharmaceutical care" arrived at the retreat, the committee developed the following objectives:

- Prepare students to provide pharmaceutical care as entry-level practitioners.
- Prepare students for other entry level careers within the broadly defined profession of pharmacy.
- Prepare students to adapt their careers to changes in health care through self-directed, life-long learning.
- Prepare students to shape policies, practices, and future directions of the profession.
- Prepare students for further educational opportunities at the advanced professional level (e.g. residencies, fellowships) or the graduate level (e.g. Ph.D., M.B.A.).

The committee focused on evaluating the core courses taught both in the college of pharmacy and in other related colleges, and on encouraging faculty to incorporate problem-solving and critical thinking learning experiences in their courses. These objectives closely

resembled the suggestions made in the AACP literature and reflected the national discussions on what educational processes were necessary to produce pharmacists prepared to practice pharmaceutical care (see Bootman, 1987; Chalmers, et.al. 1987; Chalmers, 1988, 1989; Cocolas, 1989; Cohen. 1988; Commission, November 1991; Miller, 1990).

EXTERNAL INFLUENCES

The school of pharmacy considers the literature as it reviews its curriculum, but stronger influences appear to be that of actually providing a curriculum that meets the needs of a changing profession. The environmental factors identified in the literature were also identified in the interviews as creating the need for a new knowledge base and skill set. The school's reputation influences them to want to consider whether their curriculum is meeting the needs of today's pharmacists.

Professional Associations. The AACP literature indirectly influenced the committee as a whole and directly influenced the committee chairman. Each respondent was aware of the AACP's activities and the availability of the literature, and they all received AACP articles distributed prior to the faculty retreat. Several of the faculty members on the curriculum committee indicated that they felt that the AACP journal articles provided crucial help in "educating" members of the faculty not familiar with educational philosophies. Many of the articles discussed what "critical thinking," "problem solving," and "life-long learning" meant in relation to pharmacy and how pharmacy curriculum could operationalize these constructs. A majority of the nation's pharmacy faculty are members of the AACP, and therefore receive the quarterly journals.

The articles and the educators brought in to address the college's faculty at the retreat provided "outside expertise"--a factor that several of the respondents indicated was necessary to convince some faculty of the need for and the appropriateness of incorporating the new learning experiences into their curriculum. In the words of one respondent, the articles "took education issues and applied them to the pharmacy environment, making them more palatable for some [faculty members]."

Several of the respondents indicated that the AACP's establishment of the "pharmaceutical care" term, enabled educators and professionals nationwide to unite together in support of a mission that captures all elements of pharmacy practice. Even though several of the practicing pharmacists interviewed indicated that "pharmaceutical care" is just another name for the "patient care" philosophy of pharmacy that they have been practicing for 20 years, the development of the new term allowed the philosophy to gain broad universal acceptance. By engaging the faculty in the development of their own definition for the term--a definition that all faculty members agreed with and gave their support as an objective for the college--the college in this study helped to make the idea of "pharmaceutical care" clear to non-pharmacy faculty.

Accreditation and Licensure. The close association between the AACP and the American Council on Pharmaceutical Education (ACPE), the accrediting body for schools of pharmacy, played an important role in the strength of the AACP's suggestions. The AACP influenced the ACPE to revise accreditation standards for all colleges of pharmacy to include the new accepted entry-level degree (the PharmD degree) and the existence of the educational elements necessary for providing "pharmaceutical care." One respondent indicated that the college pays attention to the AACP literature not because of the mandated move to a single entry-level degree--as previously mentioned the college already offers only the PharmD program--but because the college does want to make sure that it is providing an education for "pharmaceutical care" practice. According to this respondent, the college values accreditation because program graduates must have attended an accredited school in order to take the state board exams and become licensed pharmacists.

The state licensure requirements include 1000 internship hours. The current clinical experiences at the college provide students with about 1500 hours of experience. Because the Dean of the college strongly advocates that students not work during their fourth year of pharmacy school, he does not want any change in the curriculum to reduce the number of

hours the students glean from their clinicals and possibly encourage students to take part-time jobs in local pharmacies in order to meet the state requirement.

The Profession, Technology, and Knowledge Base. Several external factors appear to interact with each other as they create a need for change within the profession and subsequently the education of pharmacists. Respondents identified virtually the same factors affecting the profession itself as were found in the literature.

Technology and the scientific knowledge base needed to practice pharmacy interact and influence each other as advancements in technology further scientific research and produce new discoveries. These new discoveries then advance and expand scientific understanding and stimulate the need for new technological developments. Relative to how the expansion of scientific knowledge affects pharmacists, one respondent said,

> "Medical science is changing at a rate that the things students were learning a couple of years ago are already considered inaccurate. [Pharmacists] are no longer able to attach to a set of facts, but have to be able to work with a set of views and examine ideas more critically to maintain expertise over time."

A basic science faculty further explained that the "explosion" in biological research has changed the way scientists think about science and pharmacy students should be taught under the new paradigm:

> Science has changed a lot in the last ten years...should our curriculum change at all? I think when you ask that question you come up with the answer--yes, it should. Science has changed in a number of different ways. One of the ways is [an] interdisciplinary approach to science--now, chemists shouldn't be just chemists, biologists shouldn't be just biologists. The scientific advances are being made at the interface of those disciplines. How do we take those advances that are going to continue and put them somewhere into the professional curricula where they belong? Problems in science (and I would include pharmacy in that) are reaching across so many interdisciplinary lines, it doesn't make sense for us to teach little packets of information that we think hang together. It does make sense to integrate the things that logically go together to show [the students] how it is that all these things work together.

Faculty members emphasized that today's successful students have to be able to apply the basic science fundamentals that they have learned to a problem that they have not previously

encountered--unlike in the past when successful students could simply memorize a multitude of scientific facts and then recall them when they saw something recognizable. The comments of these educators reflect the argument for the incorporation of experiences within the curriculum that promote critical thinking, problem solving, and life-long learning skills in the students.

Several respondents indicated that for nearly two decades schools of pharmacy, specifically their school, have been educating students to take a more responsible role in patient care. But not all pharmacists practice in settings that enable them to practice the patient care philosophy. As pharmacists go out into careers, often they are unsatisfied. They find that they are overqualified for the roles they assume. As technology overtakes some of the roles of the pharmacist, the dissatisfaction also appears to grow into a "fear of being replaced," and pharmacists then feel a need for change.

The over-qualification, dissatisfaction, and fear of replacement all influenced the need for pharmacists and pharmaceutical educators to redefine their role and prove themselves a valuable asset to health care and to society. The new role would include elements of caring for the individual and being responsible for the outcome of therapy. Pharmacists would not "just fill an order," but they would also evaluate the appropriateness of therapy for the individual and make recommendations to the prescriber. Reflecting comments made in the literature, the faculty interviewed felt a new standard for the practice role requires a new standard for education. One interviewee stated, "If [pharmacists] are required to make decisions in career settings, then that's the way it should be taught."

The Reward System. However, respondents that were practicing pharmacists indicated that the reward structure for the work of pharmacists is not set up to reward only pharmacists that practice "pharmaceutical care." Currently, a drug store, hospital, or other site that provides pharmacy services earns money only when a drug product is sold. The caring, evaluation, and interaction service proposed for pharmacists will not bring in revenue because, unlike doctors and other health professionals, pharmacists do not bill for services other than dispensing. Therefore, if a pharmacy embraced the ideology of "pharmaceutical care" and provided it as a

service to its customers, that pharmacy would possibly earn less revenue per work hour due to the decrease in time spent by each pharmacist in dispensing drug products.

Only one respondent explained this situation in detail, other respondents indicated the reward system for practicing pharmacists did not currently support "pharmaceutical care," but the faculty members interviewed generally did not seem overly concerned that the reward structure would thwart the establishment of a new role for pharmacists. They felt that if pharmacists could demonstrate their capabilities to provide better services and improve the health care system overall, then the reward system would adjust. They also felt that a crucial part of that demonstration of viability will be the success of education in preparing graduates for practice.

Practice Sites. The incorporation of "pharmaceutical care" into the education of pharmacists appears to require more practice experience and therefore more practice sites than are generally used for the current curriculum. Several of the respondents indicated that the challenge of finding more practice sites would only intensify the existing challenge of finding adequate practice sites. Not all practice sites provide students with experiences requiring the same level of responsibility or the same level of skill.

Reputation. Not unlike the business school studied, the pharmacy school definitely concerned itself with maintaining its reputation. Every respondent mentioned the desire of all faculty members in the college to not detract from the established reputation of the school. The word "leaders" frequently appeared in the context of the school examining its curriculum in an effort to remain in the "lead" of any needs or current movements for the education of pharmacists. As the practice of pharmacy began to change at the national level, the faculty began to seriously review the curriculum not only because of the charge from the Dean, but also because they perceive the school is "at the leading edge" and that it "intends to stay there." One respondent indicated that this attitude *requires* the faculty to remain open to change and making efforts to "keep up and stay ahead."

Summary. The influence of the AACP and its literature, combined with the perceived reputation of the program, stimulated the school to seriously consider the status of their curriculum in the context of current educational issues. The timing of the charge from the Dean coincides with the action of the AACP and subsequent proposals for change within pharmaceutical education. The attitude that the school provides a leadership role for schools of pharmacy certainly interacts with the influence of a national movement--and the expertise of its instigators--to stimulate the faculty to consider new trends and their role in advancing emerging ideologies.

The reaction of the curriculum committee to these external influences reflects an adaptive model of planning behavior. The committee responded to external factors including proposals for change from professional associations and subsequent revision of accreditation standards, the adoption of a new mission for pharmacy, and the advancement of technology and an expanding knowledge base by encouraging faculty to consider the changes proposed. In a sense, the school recognized their dependence on accreditation standards and adjusted to current trends to maintain their reputation and perceived leadership among schools of pharmacy.

Within the adaptive mode, the committee also exhibited the freedom and autonomy of a "developmental" planning process as they allowed the faculty to design their own "acceptable" definition of "pharmaceutical care" and their own objectives for the program. Holding on to the belief that they are leaders, they can set the pace of the adaptation process and probably provide an example of how a school resolved conflict internally to present a cohesive plan for integrating new concepts into their program.

INTRAORGANIZATIONAL INFLUENCES

The research mission of the university and the school of pharmacy influence faculty members to remain skeptical whether they will be able to accomplish anything. They hesitate to devote time to curriculum change instead of research activities. At the same time, because

the university's medical school recently made drastic changes to their curriculum, the pharmacy program must at least decide how to offer "pharmacology" to their students.

Mission, Funding, and Reward Structure. The mission of the university in which this college of pharmacy resides plays an important role in the decisions and the actual change that can occur. Every respondent mentioned that the research focus of the university, and therefore the college, creates a major obstacle to achieving the objectives designed by the curriculum committee. The establishment of learning activities that promote critical thinking, problem-solving, and life-long learning in the students would require extra time and effort from the faculty--time that the respondents indicated faculty do not have. The faculty received a clear message at the retreat, and the curriculum committee received the same message from the Dean: faculty members were not to take time away from their research projects (many of which provide necessary funds to operate the college) for "teaching" endeavors.

Currently, research brings in funding from external sources. Recently, the college increased the number of incoming students which will increase revenue, but only slightly. Respondents mentioned that the increase in students will already require faculty members to spend more time teaching and reduce research hours. Several of the interviewees indicated that the research focus did create barriers to achieving the ideal, but the college's role as a leader in advancing knowledge is also very important and must stay intact.

Program Centrality. Even though the college appears free to set its own goals and objectives within the boundaries of the university's mission, it was influenced by a recent change in the medical school curriculum at the university. The medical school implemented an integrated curriculum that introduces students to clinical experience early on and provides instruction through small interdisciplinary groups. Previously, pharmacy students took their first pharmacology course with first year medical students. The new medical curriculum forced the college of pharmacy to decide how they would provide the course for their students as medical students no longer took a "pharmacology" course.

The curriculum committee chairperson invited a leader in the medical school change to speak to the committee at the beginning of their investigation. The pharmacy respondents indicated that the presentation was helpful in that it was very informative in outlining how to go about reviewing the curriculum and actually operationalizing a change, but that they did not want to do "what the medical school has done." Some of the pharmacy faculty felt the medical school change was too radical, others thought that it would be appropriate, and one respondent indicated that because the faculty in the college of pharmacy view their college as a leader, following the path of the medical school could indicate a slippage in their leadership role. Possibly because of the differing views on whether changes similar to the medical school's would be appropriate in the college of pharmacy, faculty members' opinions differed on how strongly the change at the medical school had influenced the college of pharmacy to take a look at their curriculum.

Summary. Similar to the committee's planning behavior in response to external influences, the curriculum committee acts in both the adaptive and the developmental modes of Friedmann's model as it responds to intraorganizational influences. The college remains free to decide their own goals and objectives and how they will achieve them, but within the bounds of the university's research mission. After the medical school change, the dependency of the college of pharmacy on the medical school's pharmacology course forced them to adapt to the altered course. However, their de-centralized program remains free from the medical school's influence in deciding how to offer the course for their students.

The operationalization of their goals and objectives will probably indicate whether the planning behavior exhibits more "adaptive" or "developmental" characteristics, but curriculum planners appear to lack the innovative elements of Friedmann's model that would allow them to find new ways of using existing resources to meet both their research needs and their teaching needs.

INTERNAL INFLUENCES

Faculty Mix and Background. The faculty in the college represent a mix of disciplines. Four curricular areas--pharmaceutics, basic science, clinical pharmacy, and pharmacy administration--make up about 33 total full-time equivalent faculty. Pharmaceutics faculty represent both basic science backgrounds and pharmacy backgrounds, and most pharmacy administration faculty hold pharmacy degrees in addition to postbaccalaureate management degrees. The clinical faculty are practicing pharmacists, many of them are volunteer proctors. A core of eight to ten tenured clinical faculty focus on scholarly activity as their main priority, but also teach and work as practicing pharmacists at the hospital. A host of PharmD graduates practice at the hospital and as their second responsibility proctor students on clinical rotations. In addition, other volunteer "clinical faculty" practice in outlying hospitals and in the community. All faculty are encouraged to attend faculty meetings and anyone present may vote.

Faculty in these disciplines have different educational and career backgrounds depending on their disciplines. The basic science faculty generally do not hold pharmacy degrees. Their non-pharmacy background results in a lack of understanding among basic science faculty of what the students need to learn in order to successfully practice pharmacy. One basic science faculty member indicated that the basic science faculty do not know what the students learn in their other classes, and if they make an effort to find out they are heavily reliant on the clinical faculty to educate them. In this college, these differences created a lack of understanding regarding what was being taught overall to the students.

As is the case in other professional programs, each discipline has its own allotted amount of class time and number of credit hours to fill with coursework. Several of the respondents indicated that they did not know if the talked about integration of materials could actually occur because disciplines might not be willing to give up time or space that they now have. One respondent indicated that if faculty could gain a better understanding of what pharmacy students need to learn, they could eliminate outdated aspects of their discipline from the curriculum and free-up time for the incorporation of new learning experiences within the

learning of that discipline--without integration of disciplines. Two of the respondents appeared much more optimistic than the otherwise doubtful faculty that the college would be able to accomplish some integration, because they perceived it as necessary to accomplishing their objectives and maintaining a leadership position among schools of pharmacy.

Ideology and Program Mission/Evaluation of Faculty. Several of the interviewees indicated that the Dean wields a powerful hand in the school and the primary stimulus for the curriculum committee to review the curriculum was the Dean's mandate that it needed to be done. They also state the reasons for the review that parallel the needs for a revamping of pharmacy curriculum identified in the literature, but identify these factors as much milder influences that probably would have influenced the school to eventually consider examining their curriculum, but at a later date. Some committee members also mentioned that traditionally every ten years or so the committee extensively reviews the curriculum, and it had been ten years since the last review.

Even after identifying these needs, respondents indicated that without the Dean's mandate the "in-depth" review most likely would not have occurred. Two respondents stressed the fact that the Dean did not mandate change, but rather gave a charge to "review" the curriculum--this element of the review appeared to be an influence that either made faculty members skeptical that anything would happen, or else made them hopeful that the faculty could agree on something "better" because they weren't being forced to change.

When the Dean charged the committee to review the curriculum, he also set up a new committee with a new chairperson. Several of the respondents indicated that the new committee and the make-up of the committee first stimulated the dialogue between the clinical faculty and the basic science faculty. Other respondents felt that the committee is not able to make progress because it includes too many basic science faculty. These respondents remained skeptical that change would occur because, as one respondent expressed, the basic science faculty have the attitude, "that's OK if [the clinical faculty] want to change, but I don't have to change."

As mentioned above, the Dean stresses that if changes are going to be made the amount of research conducted and the funds brought in from research are not to diminish. This emphasis on research by the Dean adds to skeptic faculty members' doubts about whether anything will really change. These faculty indicate that if the college wants to improve the teaching and learning experiences of the students, then it must specifically make high quality teaching an objective of the college and they don't think the Dean will allow this to happen in the magnitude that they feel is necessary to encourage results.

The focus on teaching versus research came up in every interview and was very important to the respondents. One respondent referred to the focus on research as a "mousetrap dilemma,"

> The situation is like the mouse who constantly pushes the lever for amphetamine in lieu of food. Because it is such a positive reinforcement the mouse is going to die due to starvation [by] choosing this drug, amphetamine, over food. I think of that when I think about how this is set up here. People are stupid if they pick academic teaching to put [their] efforts into, because they're not going to be competitive with their peers who put more effort into publications and research. And that's not going to change here at [this college of pharmacy].

The reward structure obviously rewards research much more than it rewards teaching efforts, "Where is the reward besides feeling good about yourself? [And] how far does that really go when you're talking dollars and cents?" One faculty suggested that something would have to provide an incentive for large-scale change to occur--possibly more peer recognition for excellence in teaching. With the program evaluation of faculty members' productivity primarily considering research above teaching, this influence not only comes from the university, but also from within the college itself.

Along with the research mission, the understood mission that the college expects to be a leader in pharmacy education consistently came up in the interviews. According to one respondent, "In general, the faculty feel like [our college] should be ahead of current practice, so from the institutional level they want to improve. They want to make the program the best

it can be." Both of these missions interact internally and intraorganizationally as the mission of the college reflects the understood and stated mission of the university.

Communication. The consistent communication from the curriculum committee to the faculty, and the provision of a faculty retreat made a strong impact on the faculty members interviewed. They believe that the retreat helped to bridge the gap between basic science faculty and faculty with pharmacy experience in their understanding of educational issues and the current state of pharmacy practice. The retreat provided a means in which the committee obtained support and informed faculty members about the issues under consideration. The high attendance at the retreat possibly indicates that the faculty generally desire to be part of the planning process and do want to stay abreast of the issues.

After the retreat, faculty members agree that they came to a consensus that problem-solving and critical thinking need to be incorporated in the curriculum. They also developed their own definition of pharmaceutical care that the faculty accepted as an idea that they believed in and wanted to train their students to practice. The retreat "encouraged" faculty members in regard to the purpose of the college and the general commitment of the faculty to maintaining excellence. According to respondents, although faculty members differ in backgrounds they do "not differ in thinking what's best for the students." Respondents indicated, however, that if the curriculum is to be broken up and changed, that additional support and motivation will need to be provided to faculty who still question where the change will occur and who will be held responsible for the outcome.

On the other side of the coin, one respondent indicated that faculty morale is down as the process stretches on and continues past the anticipated completion date. As the time frame expands, faculty begin to doubt whether anything will happen, and some fear the result if something does happen.

Professional Program Structure. Even if the faculty agree on how to incorporate more interactive learning experiences into their courses and work with the students to develop learning and thinking skills, some physical characteristics of the college prevent them from

developing certain types of activities. The fixed theater-style seating of the classrooms creates a barrier for developing effective small group activities. Because the rooms hold about 55 students, conference rooms remain the only smaller rooms available. Also, the pharmacy curriculum committee has no control over the science classes taught outside of the college.

The committee and faculty clearly understand that at a time of restraining budgets, additional resources are not available for their efforts. Additional faculty will not be hired, and the increase in the number of students admitted each year has already put a strain on both the clinical faculty precepting students and the other faculty who must grade ten more of each assignment and exam for each course they teach. The suggestion to start clinical experiences earlier by integrating them with the basic science curriculum would again increase the number of students clinical faculty precept, faculty that already express feelings of being overwhelmed with their student responsibilities.

Summary. The internal factors affecting the curriculum appear to influence the type of planning that occurs during the review process and tend to guide speculations about what will actually become operationalized. Referred to by one respondent as the "departmental" nature of the four disciplines represented within the college, the perceived attitudes and interrelationships of the faculty in the disciplines interact with the curricular tensions to elicit Friedmann's allocative planning behavior from the committee as they consciously tried to come up with a review process that gives equal input, equal power, and equal time in the curriculum to each discipline. For example, the expansion of the curriculum committee involved adding people in order to establish the presence of two faculty members from each discipline on the committee. The presence of these faculty members also allows them to return to their colleagues, who may not be familiar with the issues being discussed, collaborate with them, and then return to committee meetings with feedback.

At the same time, the measures used to evaluate faculty--strongly related to the mission and program ideology--interact with the external influences and program objectives derived from the external factors to lead to frustration and sometimes pessimism among the faculty toward

improvement actually happening. The adaptive planning behavior reacting to evaluation, program mission and ideology, and to external influences leaves faculty with the impression that the objectives calling for emphasis on learning skills and changes in teaching patterns will not survive under the strong influence emphasizing research.

CONCLUSION

The charge from the Dean interplayed with the national movement to change pharmaceutical education and adjust to a changing environment to influence the program to consider certain issues and seriously review their curriculum based on the AACP objectives. They recognize that changes in technology and scientific knowledge have created a need for students to learn more than just technical skills in order to expand their knowledge base to include skills for lifelong learning. At the same time, intraorganizational and internal influences tend to stifle attempts to focus on teaching and curriculum.

The attitude that the school is a leader among schools of pharmacy influences them to react and adapt their goals and objectives to the external proposals and recommendations. Yet, as experts in pharmacy education, they adapt developmentally as they design goals and objectives that they are comfortable with.

The curricular tensions, research mission, and procedure for evaluation of faculty interact and influence the planners to try to allocate resources to all disciplines and, recognizing that the program is dependent on both intraorganizational and external organizations, adapt to the recommendations of both groups. At the time of this study, the outcome of the combined influence of the intraorganizational and external factors had not yet produced any change in the curriculum.

ACCOUNTING EDUCATION

Recognizing that the environment surrounding the accounting profession had changed, the American Accounting Association (AAA) appointed a committee in 1984 to study the state of the accounting profession. Comprised of "distinguished" accountants from education, public accounting, industry, and government, the Committee on the Future Structure, Content and Scope of Accounting Education produced the "Bedford Report" (named after the chairman of the committee) which found that accounting had recently undergone significant change yet current university accounting programs had not recognized or incorporated the changes into their curriculum.

The study reported that the accounting profession was expanding, entering a new era with new functions in organizations and in society. New expectations were also being formed by those entering the profession. According to the committee, the current state of most professional accounting education programs is inadequate to meet the needs of this expanded profession. The report expressed little doubt that the current content of professional accounting education, which has remained substantially the same over the past 50 years, is generally inadequate for the future accounting professional. The study pointed to a growing gap that exists between what accountants do and what accounting educators teach. This gap will not be closed by efforts to update random aspects of accounting education, according to the report, but rather a reorientation of accounting education is needed (American Accounting Association Committee on the Future Structure, Content, and Scope of Accounting Education [AAA Committee], 1986, p. 172).

The twenty-eight recommendations of the "Bedford Report" focus "on the capabilities needed in the profession that should be developed by the educational process" (Schultz, Massond, & Smith, 1989, p. ii). Ten of the study's recommendations address the future scope, content, and structure of accounting education and call for a broad educational foundation during an accountant's collegiate education that include: viewing accounting as a broad economic information development and distribution process; advising students to

experience a general, broad accounting education, and offering specialization only at the graduate level; emphasizing skills for life-long learning; expanding educational requirements in liberal arts and sciences which would develop students' abilities to analyze, synthesize, solve problems, and communicate effectively; designing learning objectives to help students learn, think, and be creative; and maintaining flexibility in accounting education programs so that they can adjust to changes in the information needs of society.

Other recommendations call for changes in the teaching process such as providing intellectual contact between students and teachers; implementing learning experiences involving students as active and independent learners; and relying on accounting practice and research, rather than on licensure exams, to develop curriculum content. Several recommendations also address the need to develop adequate reward structures for faculty involved in curriculum development (AAA Committee, 1986).

Following the "Bedford Report," the AAA commissioned several "follow-up" committees to provide "evidence of trends to be studied, understood, and addressed during a period of transition toward a graduate entry educational standard for the accounting profession" (Schultz, Massond, & Smith, 1989, p. i). The resulting reports were submitted to the AAA Executive Committee during the summer of 1987 and spring of 1988.

After the Bedford Study, in the late 1980s, the managing partners of the then eight largest international accounting firms (the "big eight") investigated the situation and issued, *Perspectives on Education: Capabilities for Success in the Accounting Profession* (1989), which came to be known as the "White Paper." This paper echoed the Bedford Report, and stated that accounting schools were not producing the type of accountants the firms needed to hire. The paper said that the skill-set needed to practice accounting in today's profession is very different from the skill-set needed to practice accounting 20 to 30 years ago. In essence, the paper said that educators need to focus on teaching communication skills, intellectual skills, and interpersonal skills, as well as technical skills, and the paper provided a list of capabilities required for successful practice in accounting that should be developed during the

educational process. The managing partners of the Big Eight accounting firms signed the document and pledged up to four million dollars to support change in accounting education. According to one respondent, the release of the White Paper "jerked the head of the academic community."

The AAA established the Accounting Education Change Commission (AECC) "to assist in achieving the goal of serving the public interest through improving the educational process which prepares accountants" (cited in Massond, Smith, & Schultz, 1989, p. i). The AECC administered a grant program set up to distribute the money provided by the CPA firms. The firms intended for the grant money to support the design and implementation of innovative curricula, new teaching methods, and supporting materials that would equip graduates for success. The AAA announced the grant program at their annual meeting in 1989, and proposals for funding were due on February 1, 1990.

THE SCHOOL OF ACCOUNTANCY

A recipient of a 1990 AECC grant, this school of accountancy admits 240 junior-level students each year. In the fall of 1991, 223 students were admitted. The main structure of the accounting program in this study was developed in 1976 when the School of Accountancy was established as a separate unit within the new Graduate School of Management. At that time the curriculum was restructured to offer a five-year professional program consisting of two years of professional and general education background, followed by three years of professional accounting education. The integrated bachelor's and master's program depended on a strong undergraduate program. Rather than offer a doctoral program, the school decided to put all of its effort into a strong master's degree program that would prepare students to be very successful practitioners.

After the school established its five-year program, the profession began nationally to call for a requirement of 150 hours of accounting education for accountants to become licensed. The school under study became a strong supporter of the movement at its outset

and, according to respondents, was "one of the driving forces" both in establishing the 150-hour requirement and in founding the academic organization called "The Federation of Schools of Accountancy."

The 1976 accounting program at the school of accountancy considered students undergraduates until they applied and were accepted into the graduate program. In 1987, the school revised the program to consider entering students as on the path to a master's degree. As one respondent put it, "The non-current BS. degree was an option for an assumed few students who elected not to continue into the graduate degree program." However, students still had to apply to the graduate program after one year of study in the program. According to a school publication,

> "The main purpose of the [School of Accountancy] is to prepare students for entry into the accounting profession... By design, the academic program is an integrated approach that encourages students to complete a master's degree. Currently, 240 students are admitted at the junior academic level with 150 continuing into the graduate degree program" (*Integrated Jr. Year Accounting Core: Report to AECC* [*Report I*], vol. I, 1992, p. 2)

Not long after the 1987 change, the Director of the School of Accountancy sent a memo inviting interested faculty members to meet and talk about curriculum change. As a result of the memo, twelve faculty members met together and all agreed that they needed to improve the academic structure of what they were doing in the classroom. They felt that they had a very good program and did not want to change the degree requirements, but rather they discussed ideas such as changing the delivery of the subject matter.

At the outset their discussions consisted of "shuffling courses and playing with numbers," which shifted the order the topics could be presented or the order of requirements. They talked about this kind of change for almost a semester, one respondent said, "before it dawned on us we were not improving anything." The faculty members then started to discuss what competencies they wanted their students to be able to have when they finished the

program. About this time the "White Paper" came out and spelled out the competencies that the CPA firms felt accountants should have.

A short time after the faculty members began discussing competencies and about a year after the twelve faculty members first met, the AAA announced the establishment of the Accounting Education Change Commission (AECC) and schools' opportunity to receive grant money for innovation in accounting education. The school thought that they "might as well write up a proposal, since [they] were talking about change anyway." A team of 10 professors began meeting bi-weekly in September, 1989. Each functional area was represented on the team, and the school hired an educational consultant from the department of education to assist them in analyzing their curriculum. At this time they still did not have any idea where they wanted to go with their ideas, but the educational consultant suggested they focus on the competencies they wanted to teach the students.

Because the competencies outlined in the "White Paper" resembled those of the Bedford Report, the faculty members decided to identify "those competencies needed to be successful as a professional accountant and the point in the educational process at which these competencies are being acquired" (Deppe, et.al., 1991, p. 1). In October 1989, several faculty members first summarized national reports to identify competencies recommended for a successful career in the profession of accountancy. They then analyzed a random sample of exams from accounting courses in their curriculum to determine what competencies were being tested in their courses. They combined these lists of competencies, and from the combined list of 27 competencies they developed a questionnaire that was distributed, early in 1990, to over 800 professionals, including graduates of their program. The questions focused on what competencies the respondents believed a professional should have, which competencies should be taught at the university level, and which should be taught in the field.

After gathering the data, the professors found the data to be consistent with the findings of the "Bedford Report" and the "White Paper." The professors divided the 27 competencies into 7 competency areas: (1) Communication Skills; (2) Informational development and

distribution skills; (3) Decision making skills; (4) Knowledge of accounting, auditing and tax; (5) Knowledge of business and the environment; (6) Professionalism; (7) Leadership development.

Once they directed their efforts toward identifying the competencies, the proposal began to take shape. The first objective of their AECC proposal "was to identify the competencies accounting graduates should possess to meet current and future challenges for a broad range of professional careers (*Integrated Jr. Year Accounting Core: Report to AECC, vol. II*, 1992, p. 16)."

In April, 1989, the AECC announced the school had received a $250,000 grant. Shortly after the announcement the school held a faculty retreat for all faculty members, invited representatives from the accounting profession and some students. The presentations at the retreat focused on the future of accounting education and how faculty could affect change within their own curriculum to meet the demands of the future. Professors from the university's Organizational Behavior department conducted exercises aimed at helping faculty think more broadly and overcome reluctance to considering new paradigms and relationships. The keynote speaker represented a large accounting firm, and the department reports, "He excited us with his now famous 'Stovepipe' address outlining the functional myopia that had been building in accounting firms. As a member of the AECC, he encouraged us to think creatively as we addressed our grant implementation (*Integrated Jr. Year Accounting Core: Report to AECC* [*Report*], May 14, 1992, p. 5)." Much of the day was spent in group activities, and a spirit of "change" permeated the retreat by the end of the day. At the conclusion of the retreat, the attendees "clearly agreed" that:

- The accounting professional of today performs activities and services that are different and significantly broader than those provided by the professional accountant of ten years ago.
- The traditional accounting curriculum at [this school] had to undergo revolutionary restructuring.

"With this mandate, our faculty faced the challenge of taking the skeleton for change incorporated in our proposal and starting the arduous task of planning the details that would allow us to achieve our desired goals (*Report*, May 14, 1992, p. 6)."

As the competency study was completed, the school expanded the implementation committee to restructure the accounting curriculum for the junior year. Only a few months after receiving the grant, the faculty team proposed a new junior core to the faculty. After some discussion, not one faculty voted against the change. The proposal called for the existing junior year core of six classes to be replaced with a 24 credit-hour integrated core that would involve students attending class three hours a day, four days a week, for two semesters.

The first nine weeks of the core would be spent laying a foundation for each academic area. The core would follow the structure of the life cycle of a business: after the foundation phase, students would learn those accounting skills required to operate a small, a rapidly growing business, then move to a slower growth business, a mature business, and a dying business. they would start teaching the different areas as they relate to the first cycle, and then continue the cycles covering each academic area as they move through the fall and winter semesters.

The school of accountancy implemented the junior core during the 1991-1992 school year, thereby involving 223 students, and 12 faculty. The development of the 10 member faculty team that prepared the AECC grant proposal and participated in the competency study formed the "nucleus" of the "faculty implementation team" that developed the teaching plans and taught the first class in the junior core. Of those 223 students beginning that year, 219 completed the core. The second year of the core, the school made minor adjustments to improve the program and 19 faculty--9 new to the junior core--taught 236 students.

EXTERNAL INFLUENCES

Respondents identified environmental factors including globalization of trade and commerce, advancements in technology, and increasing numbers of rules and regulations

affecting accounting practices that have created the need to expand the knowledge base and skill set of accountants. These factors reflect those identified by the Bedford Committee and the Big Eight executives, and their subsequent documents stimulated many of the faculty members at the school to consider change. The grant money and the school's reputation of having a strong, current program provided incentive to actually implement change.

Knowledge Base. "The thing that really prompted [the change] was the profession itself." Every respondent acknowledged that the accounting profession has changed over the years, and consequently accounting education needed to change to meet the demands of the profession. The "White Paper" and the "Bedford Report" stand as hallmarks of what both members of the professional community and members of the academic community think has changed in the profession and what should therefore change in accounting education. The changed aspects of the profession mentioned by respondents mirrored those delineated in the two reports.

The theme of the interviews and these two reports is that the changes in the profession have changed the professional role of the accountant and point to the need for a new set of skills to successfully practice in the profession--in other words, a revised knowledge base. All respondents focused on the need for an expanded knowledge base that includes more than just technical skills, but also communication skills, the ability to make decisions, and the many other competencies identified in the literature and in the school's study. Trying to describe the situation, one professor posed the following question:

> "Have you ever seen *A Christmas Carol*? Cratchet, he's an accountant. He sits there every day with his little book and writes in his little book. *Look Who's Talking*? Kirstie Alley's in it. She's an accountant. She sits behind her desk and just pounds on her ten key adding machine. Norm Peterson--he's an accountant, he sits on the end of the bar at Cheers. There's this stereotype out there of what everybody thinks an accountant is. They sit there and just add numbers up. It turns out we were training people to do just that. Well the profession was saying, `We've got to do more than just add numbers, that's what we used to do back in the Bob Cratchet days. That's not just what we do anymore.' They do a lot of consulting with business and they do a lot of

> systems design with business--they still do adding numbers up, but it's a small part of what their portfolio of services is."

Several factors have affected the profession. According to one professor, in the 1800s the profession changed in response to a changing environment, likewise, environmental influences are what stimulate the changes today.

Global Interrelationships. One current environmental change has been the increased globalization of firms and operations. One professor claims that accountants are the most "parochial" of the disciplines in that accounting professors concern themselves only with teaching students accounting standards for the United States. Then when the students go work for firms involved in global issues they are not prepared for these issues.

Technology. In the 1960s the profession was still very rule intensive, and accountants did do the "ticking and tying" found in the stereotypes. Now, the computer performs much of that "grunt work," and the work accountants do requires decision making, analytical thinking, creativity in completing a job, and the ability to work in teams. Accounting education was teaching students to "do the numbers thing"--the profession needed them to do more than just numbers. When the school received feedback from the employers of their graduates that their "students were going into accounting firms very well prepared in technical proficiency, but there was always a bit of a glass ceiling for those who were only technically proficient and didn't have the social skills, presentation skills, and other skills that help them be more than just bean counters," several of the faculty wanted to at least try to make things better by emphasizing the non-technical competencies.

Government Policies. The growing number of rules and regulations represents another factor influencing faculty members to focus on the non-technical competencies. In the past, schools have "transferred" to students the information relating to the rules governing accounting principles, then students go out in the field and have to "figure out what to do with it." In essence, accounting students memorized rules and procedures and then simply recited them when they took tests. As the number of rules and government regulations continues to

grow, respondents acknowledged that students cannot be expected to memorize every piece of information that they will need to know in the future. Instead, they must be able to learn the basic fundamentals, then apply them in solving problems, thinking critically, and continuing their learning process as the field continues to grow.

Client Orientation. Another change occurred as firms began to consolidate and the economy slowed down. This increased the competition for clients, and accountants no longer only performed technical audits, but were also expected to attract clients to the firm and interact with them. At this time some accountants began to make bad decisions due to lack of understanding of an industry or operation, and they began to "look the other way to get clients." Accountants now must be able to better understand diverse environments and understand the risks involved in decisions.

Because accounting is closely tied to the economy, trade patterns, government regulations, and because technology took over some of their functions, societal influences affected the knowledge base as it created a need for an expanded set of skills and competencies to be able to effectively practice accounting. The knowledge set and skill set taught in accounting education had not adjusted to the changes in the profession. Consequently, professional associations began reacting to the discrepancy by presenting at conferences and publishing their findings on the need for accounting education to change.

Publications and Professional Associations. According to several respondents, accounting professional organizations concern themselves with education issues. One of these organizations is the American Accounting Association. Before each annual meeting, the AAA offers continuing education courses and about 40% of the presentations at the meeting are educationally oriented. All of the faculty at the school belong to the AAA. About 15 years ago the AAA began to develop groups involved in specialty function areas. They are now developing a teaching and curriculum section which crosses all areas. In addition to AAA activities, when the profession holds conferences its often invites the School of Accountancy to

send members of its faculty. This attitude of educational importance helps to promote a feeling of improvement among the accounting educators.

In addition to conferences, the AAA Newsletter which used to include a section on education, now sends out a separate newsletter, the "Accounting Educator." Two journals are also devoted to improving accounting education. These journals include *Issues in Accounting Education* and the *Journal of Accounting Education*. Due to these various outlets of information, several respondents felt that their faculty were very well aware of the professional environment and the educational needs of the profession. One of the respondents felt that the increased interest in education issues is due to the Bedford Committee and the money that began the grant program.

One of the follow-up committees to the Bedford Committee reported six factors that "have a pervasive impact on, and that are essential to the analysis of accounting education (Schultz, Massond, Smith, 1989, p. 15)." Two of these, the influence of the Financial Accounting Standards Board (FASB), Congress, and the Securities and Exchange Commission (SEC), and the influence of the business environment encompass the influences of rules and regulations, technology, global interaction, and client orientation discussed above. As these factors affected accounting firms nationwide, the academic community began to realize that accounting education did not match the needs of the profession. Many of the respondents felt that the resulting "Bedford Report" and "White Paper," were not only catalysts for interest among the profession, but were also "certainly [the] spark" to the changes happening at the school.

When professors came back from the annual AAA meeting where the grant program was announced, they spread the information that changes were going to be made in accounting education. According to one respondent, "They came back ready to see if we...couldn't build on the reputation we already had by making some changes and applying for a grant." In convincing the faculty members to support their application for the grant, the members of the

team that had been meeting for over a year built on the idea that the grant would provide them with resources to do some of the things that they had already thought about.

In 1989, faculty members familiar with the "Bedford Report" and the "White Paper," and the grant money from the Big Eight, felt that their program was generally a good program, but they could also recognize some of the criticisms of accounting education in their own curriculum. They required students to memorize lists of regulations, professors primarily used a lecture format to cover the rapidly expanding body of regulations and relied upon text problems with only one "right answer." They did not provide students time to explore conceptual foundations or real-world applications of accounting information. Only a few courses encouraged writing skills and group work, and oral communication was only emphasized at the graduate level. In addition to not fully meeting these recommendations of the Bedford Report, the school also treated courses as separate entities with little curricular interaction between professors of different functional specializations. The school reports, "Even though our students were being recruited heavily, many faculty members felt that a better job could be done in preparing our students for the future (*Report*, May 14, 1992, p. 4)." Based on this feeling of unrest and recognition of the national push to adjust, the faculty supported the small team of faculty members and voted to apply for a grant.

Funding. Every respondent indicated that the grant money acted as a large incentive for the entire faculty to support the ideas of the 12 member team. Once they received the grant money, the faculty voted to implement the junior core designed by the team. The faculty members interviewed said that the availability of money influenced faculty members to vote for the change that wouldn't have otherwise. The design and implementation of the junior core took a lot of effort and not all faculty members were willing to put that effort into the project, but they did like to see the school receive funding. With funding and the profession behind them, the team of faculty also had some justification for what they were doing when they approach not only their own faculty, but also the university administration. The grant

also worked as a stimulus to the faculty on the team, even though they only received a small stipend at the end of year--not nearly equivalent to the time that they spent on the project.

Several respondents thought that they would have changed even without the money, but not as quickly as they did. One respondent said that to "go from point A to point B is easier when someone greases the wheel with money." One faculty member even thought that without the establishment of the AECC and the grant program, that the Bedford Report would have taken "15 years" to make a difference. But the AECC was established to foster change and improvement, "they held out carrots to say, if you'll do these projects we'll give you some money."

The money also drew national attention because in many places states are economically pressed. At a time when schools are cutting back faculty and increasing the size of classes, faculty and schools do not feel that they can put in the time or effort it requires to make change.

Reputation. Another driving force behind the school's desire not only to change, but also to apply for the grant, was their desire to maintain a high reputation for producing excellent accountants. They feel that the technical quality of their students is superior. Many respondents mentioned that in the ranking of accounting schools their program consistently appears among the top ten schools of accounting. One respondent said that the faculty perceived that they have a good program and will do everything they can to maintain that perception. Because of the general sense that things were going to start changing and if they wanted to stay one of the better schools, then they had better "grab on," the faculty on the team knew that their efforts would succeed in improving the program.

Marketplace for Graduates. In an effort to maintain their reputation and continue attracting national recruiters to the school, the program maintains a close relationship with their "clients"--the public accounting firms. They talk to these companies to find out the needs of the firms and to find out how their students are doing compared to others working in the company. In the last few years, they found out from the companies that they were teaching

accounting topics as "stand alone topics without regard for how they interrelate." The professionals also responded that the technical quality of their graduates was excellent, but that in order to move forward in their careers they would also need non technical qualities. They would ask, "Do you do writing in your courses? Do you do this, do you do that?" The school tried to analyze these criticisms and wanted to adjust to them.

Licensing. The faculty members all emphasized that the program is not designed to prepare students to sit the Certified Public Accountant (CPA) exam. Recently, the profession has asked that the results of the exam not be published, because they do not want programs to be CPA prep courses. Preparation for the exams consists mainly of memorization which is what the organizations are trying to displace in accounting education. Recommendations to revise the exam have tentatively been scheduled for the May 1994 exam, but currently the school looks more at the high number of recruiters wanting their students and the number of students they turn away from the program with high credentials as measures of success.

Summary. In the first stages of the curriculum change, the faculty team was responding to needs they saw in their program and were headed toward an innovative approach to improving the curriculum. They wanted to use their resources to develop new ways of teaching students. As the "Bedford Report," the "White Paper," and the grant program became nationally recognized, the team slightly took on characteristics of Friedmann's adaptive planning model. They identified the similarities between their ideas and the recommendations and proposals made by external units and then took the grant opportunity to make the changes they had been wanting to make and that were proposed by the commission.

Once the grant program was available, they again took on more of an innovative planning approach. They had already acknowledged that their own ideas matched those of the external constituencies and adapted to additional recommendations that they had not considered, and then proposed that the school apply for the grant in order to advance their ideas. When they received the grant money they came up with an innovative approach to offering the junior year curriculum, and presented it to the rest of the faculty as a way to reach

a new educational objective. By applying both adaptive and innovative behaviors to their actions they were able to meet the needs of the AECC and influence the college to support their ideas.

INTRAORGANIZATIONAL INFLUENCES

Intraorganizational factors such as support from the university administration, and an educational consultant from the education department helped to bolster the school's confidence and give them direction.

Governance Patterns. When setting up the school in 1975, the accounting administration negotiated with the university administration to maintain control over curriculum and faculty issues. The establishment of a separate school of accounting with a five year program and giving that program control over its own curriculum provided a structure that fostered curriculum innovation and made the transition to the junior core a fairly simple procedure.

When the school presented its ideas about establishing a separate school to the university curriculum board and president in 1975, "very respected people in the business community" supported the school's position and presented their support at those meetings. This occurred again when the school recently presented their proposed curriculum changes to the university curriculum board and president. Several respondents indicated that the support from the profession has fostered support from the university's administration when the school makes a proposal.

Another aspect of the university administration that has enhanced the school's ability to make changes is that two of the last three university presidents received undergraduate accounting degrees from the schools accounting program. Consequently, these presidents promote success at the School of Accountancy and the Business School. Respondents indicated that on several occasions the current president has referred to the accounting program when talking about the successes of the university.

The administration also showed its support for the school when it applied for the grant money by changing a university policy. A university rule states that 43% of all money entering the school from external sources must go to the university to cover overhead costs. However, one stipulation in the grant application was that the school's administration sign a commitment to put an equal amount of money into the program. The university did that and waived the 43% requirement, enabling the school to actually receive the awarded grant.

Not only is the university administration supportive of the School of Accountancy, but the Dean of the Graduate School of Management is a former director of the School of Accountancy--a subunit of the management school. This support has provided the school with considerable a bit of autonomy in making decisions about the curriculum. When the school approached the administration with is plan to produce more well-rounded students, after the concept was accepted the school was given full control to proceed as they deemed best.

Program Centrality. The grant money allowed the school to hire an outside consultant, a professor from the education department. This professor aided the faculty team in first designing their grant proposal, and then guiding the evaluation efforts for the junior core. His first contribution to the school's efforts came when they were floundering with counting credit hours and shuffling courses. The educational consultant advised them to first identify the educational outcomes that they wanted to achieve, and then structure change around trying to develop these outcomes in the students. Hence the competency study and the focus on one competency each day of class.

The educational consultant sat in on the meetings from the time the faculty members started to write the proposal, and he told the faculty team, "you've got to be willing to have mid-course changes." They followed his advice, employed ethnographic data collection techniques and evaluated their progress and success in several steps throughout the first year the junior core was implemented.

In addition to interacting with a member of the education department, the school of accountancy naturally interacts with the business school since they both reside in the school of

management, share classrooms, workspace, and a few professors. One professor mentioned that the building housing the Graduate School of Management was built after the time that the Harvard business school introduced the case method approach to teaching. Therefore, the design of the building included smaller "case" rooms with circular style seating for 60 to 65 students. These rooms are the type of room that the program now would want to use to promote discussion and interaction, yet at the same time, the tiered rooms do not foster group work. The faculty came up with ways to sit groups around the room that "worked." The seating capacity allowed the program to divide its entering class into four sections of about 60 students each and rotate them in the rooms to allow 240 students in the core. The faculty feel that 60 students in a classroom is about the maximum number they could manage when dealing with group situations.

Mission and Ideology. Several respondents mentioned that because the school is a religious affiliated school, and not tied to a state system, several factors enhanced their ability to change the curriculum. For example, one factor is found in that the university does not have to match transferability requirements of a several university state system. Another commonly mentioned factor is that because of the religious affiliation, many of the faculty choose to come to the school more for the benefit of the school than for what they can do for their individual careers. The faculty also share a common belief--this shared belief creates a bond of unity and serves to transcend ordinary differences and bring them closer toward reaching mutual goals. These university characteristics are exhibited internally in the faculty and enable them to work together and be willing to do things a little differently than they might individually want to do.

Summary. Support from the university administration enables the accounting school to make changes and design new learning plans. When the external reports emphasized change, the school was able to approach the administration with a request and get a university policy waived. The external influence of the profession also provides support for the school in working with the administration.

In terms of planning behaviors related to intraorganizational influences, the faculty team became very developmental as they established their own goals and methods to achieve these goals. In the interviews, the faculty members were very sure that if they presented a united purpose, then the administration would support their endeavors. Their collegiality and ability to agree on issues allows them to resolve conflict internally and present the united front.

They also exhibited innovative behavior when they hired an educational consultant and then took his suggestions and developed them into creative new arrangements which supported their ideas about introducing new teaching methods to enhance the non-technical skills in their students. The consultant's evaluation design was a very new concept for accountants, who wanted to use a t-test or chi-squared, or some other statistical formula to determine how their junior core was doing. The faculty team recognized that the consultant presented a new arrangement that would allow them to make the continual adjustments that they indicated they wanted to be able to make due to their lack of experience designing and implementing this type of curriculum.

Innovation also occurred when the faculty took the building arrangement and built on the capacity of the room to structure section size. They also came up with arrangements for group work in rooms some said were less than desirable for group activities.

INTERNAL INFLUENCES

Internal factors such as the support of the Director of the school for change, the push for change by new faculty, the dedication to teaching of senior faculty, and the faculty's willingness to work together combined to influence the school to achieve implementation of change.

Instructional Methodology. In the late 1980s, the Director of the accounting program became "disillusioned" with the lecture approach to teaching. He could see that if the students had good memories they did well on the exams by regurgitating the lecture. Some of his colleagues in the school did not assign papers in classes, even in some graduate courses.

Because he was not familiar with literature on instructional design, he began to look for speakers who could come in and talk to the faculty about how to do a better job teaching students to learn. In talking to faculty about how to improve their teaching methods, the information often "fell on deaf ears." According to one respondent, when a faculty member has taught in the school for 25 years and ranks in the top 1/3 on teaching ratings because he is "friendly and entertaining," then he is going to think, "Why should I change?" So the Director initiated the organization of a faculty team to discuss curriculum change.

Then the two documents came out, and then the grant program. All of a sudden organizations external to the program were suggesting national change in accounting education. Many of the changes suggested in the documents paralleled the Director's concerns, and he had some leverage to convince uninterested faculty that they should be interested in the education issues and give their support for the grant application.

Core Courses, Contextual Study, and Course Sequencing. Once the faculty team began focusing on outcomes, the competency study provided them with an "idea of what [they] wanted to achieve." They decided to work on the junior year, because enrollment in the junior year had been controlled since the start of the five year program. Originally students took six courses in their junior year: two in intermediate accounting, and one each in managerial, systems, auditing, and tax. The faculty team initially decided to modify these courses to include the expanded competencies identified in their research. The team spent a few meetings discussing how to achieve this and considered asking the faculty members teaching in the junior core to concentrate on one or two of the competencies as they taught their subject material. They eventually rejected this idea because it would require a slow transition phase and the competencies would receive uneven treatment across class sections as faculty responded differently to the assignment.

About this time they learned of an approach taken at another accounting school that taught an integration of the functional areas in their introductory course. Integrating the traditional subject areas, rather than teaching separate classes, would allow faculty members to

help each other develop a curriculum that includes the non-technical competencies and alternative teaching methodologies.

This idea of integration was one of many issues the team talked about. They decided that they would not make a significant impact on outcomes unless they changed the structure of that first year. Integrating topics meant faculty would work in teams, and they had never done that. In the words of one professor, "Universities don't do that. You teach your class, and it's your class. You teach your stuff and to heck with the rest of the world." So the discussions circled around the issues without resting on any one solution.

While the faculty team was discussing how to implement their ideas, two members of the team had traveled to a conference together and while they were there decided that the program ought to try course integration. So they sat down and outlined how to do it day by day, and came back with 45 days outlined, what to teach each day, and the cycles to cover. The team had already talked about this structure, but it took two people to write it up to influence them to actually implement in this way. One of these two professors said of their decision:

> "The more we talked about it, the more we thought that what we needed to do was completely repackage the courses. We decided not to jump in with our little toe. As we talked about it, we decided that we really ought to teach accounting structurally different than we do, instead of these separate classes which almost stand by themselves, in which there is a relationship but the student isn't always forced to see the relationship until he gets out in the field.

The integrated framework presented the material in pieces, interspersing the different academic areas. In order to do this, a common foundation on which to build the knowledge was needed. The team decided to deliver the subject matter using business cycles as the foundation, rather than the traditional spreadsheet approach to accounting. The business cycle framework represents a "generic way of looking at businesses so that all special needs [can] hang on to the structure." This approach was also consistent with the definition of accounting that the "Bedford Report" and the "White Paper" referred to.

As individual faculty traveled together or met in informal and formal groups, some conceptual experimentation soon led to the recognition that cycles could be meaningfully discussed only after the students learned certain foundation principles. So, the first nine weeks were spent introducing students to foundation principles in each functional area.

After the integrated core was designed, the team realized that they had forgotten about the competencies that they wanted to incorporate into their courses. But, as the school's report states:

> "The more we discussed this framework, the more we were convinced it would also enable us to introduce the non-technical competencies in a more unified and efficient way. Projects that integrated both subject matter and non-technical competencies could be developed and presented systematically throughout the year. Old courses would have to be changed. Technical subject matter would have to be scrutinized to see how it fit into this new framework. The framework would also permit the faculty to develop an openness to curriculum change that encourages experimentation." (*Report*, May 14, 1992, p. 42)

Seven of the team members said they would work on putting the ideas together into a program, while others did not want to delay other work they were engaged in. At this stage of discussion, the accounting profession had given them their $250,000 grant money, and they used it to develop the junior core.

The team decided that including all 20 non-technical competencies in the junior year would be difficult. None of the faculty members had experience teaching these non-technical competencies, and they realized faculty would need training to effectively teach many of them. The team decided to select nine of the 20, refer to them as "expanded competencies" to distinguish them from the one grouping of technical competencies, and emphasize these throughout the core. They also decided that the expanded competencies would be the primary focus of the core and the content would take a secondary role. They agreed that every day they would identify the topic to be covered, identify the competency to be covered, and then each class period teach the technical material plus focus on one competency through instruction and through assignments.

The "next big step" was to decide how to teach the technical competencies and the non-technical competencies within the class days. Even though the junior core expanded the required credit hours from 18 to 24, the faculty realized they could not include all the technical knowledge and topics that they had been teaching in separate courses and include the additional topics of law and international accounting. Topical priorities had to be established and the faculty "scrutinized" functional areas to consider trade-offs. After many compromises the faculty prepared a preliminary calendar and assigned responsibilities for each of the 112 class days. The faculty decided that each cycle would begin with the systems area and when possible, an integrative case would summarize the cycle.

In terms of course content, instructional methodology, and sequencing, the individual professors no longer controlled their class. They now had to agree with the other faculty and start compromising on these issues. Some faculty objected to "having so much taken out of their hands." After the first year, the faculty decided to give more curricular responsibility back to the professors to try to make them more comfortable teaching in the core.

The business cycle foundation and the integration of functional areas were not part of the school's grant proposal. Their proposal stated that they would incorporate competencies in their courses. But the needs of the profession, the existing teaching methodology and structure of their program, the background of faculty members, and three years of discussion led to the integration around business cycles.

Faculty Background and Faculty Mix. Under external influences, we discussed the educational focus of accounting professional organizations and this school's faculty involvement in those organizations. Respondents indicated that historical factors contributed to the faculty's interest in educational issues. Most senior accounting professors worked in practice before they began teaching. Because they liked the teaching element of the profession they would come back to teach--but only with a bachelors degree. In order to continue at a university, they would need to get a master's degree or the equivalent. At some point education began changing, and to be successful nationally, a professor needed a Ph.D. So

many in the academic arena got their doctoral degree, but their background was not research oriented, rather their emphasis was on teaching. Now, more accounting students go straight to graduate school and do not work in practice. This worries some faculty members who feel that the older faculty's commitment to teaching enhanced the ability of the school to implement the junior core.

In addition to having some senior faculty extremely devoted to quality teaching, the core leaders of the change included powerful people in the school such as the program director, a past director, and previous department chairs. Their presence and influence provided the foundation for a very influential faculty team. The team represented a cross-section of program faculty by academic specialty, age, and rank. The team was very supportive of each other, regardless of age or rank, and the various levels of experience added to the dissemination of many different viewpoints on the design and implementation of the junior core.

Respondents indicated that the excitement and enthusiasm of the faculty team grew and permeated all those involved in the process. Typical of references about members of the team, one respondent mentioned, "Some administrative faculty suggested that assistant professors without continuing status (tenure) should not be involved in the development and initiation of the junior core because of its heavy demands. However, those assistant professors involved did so because of their interest in teaching. They provided enthusiasm and leadership in their areas of expertise."

Some faculty members expect to continue to see the junior core evolve, because "its success takes the enthusiasm of the people working on it." The faculty team wanted all faculty to be a part of the core and experience some sense of "ownership" over it. They worked out a way to rotate faculty into the core from year to year. Because they want the faculty in the core to be comfortable teaching there, they receive input and modify the core to satisfy those involved it. As one professor said, "It's got to be a living document, it's got to change with the new faculty."

In addition to the characteristics of the faculty team working on the core, characteristics of the faculty at the school influenced the ability of the school to change. Intraorganizational factors contribute to the faculty's willingness to work together, and several respondents referred to the faculty as an "amiable group" that works well together. They mentioned that groups of faculty do things together socially, such as the tax faculty regularly going out to lunch. Informal interaction among faculty contributed to the progress of the implementation as faculty members would visit with each other in the hallway, over lunch, or in each others offices. Professors said that faculty meetings are "quite mild," because problems are typically resolved informally and then ratified and "smoothed over" in faculty meetings.

Another factor that influenced the faculty to progress toward change was that the school had hired two new professors who strongly felt that accounting education was behind the advancements in the profession. They had both graduated from the program, and, quote, "never knew that [the functional areas] used the same numbers. We went through five years of this [school] and never knew that." The "first thing" they wanted their students to understand was that all the disciplines work together. And in order for them to recognize that, the curriculum would have to move away from presenting ideas in separate units. So, these two professors became strong advocates of integrating courses.

Evaluation of Faculty. As mentioned above, two faculty members on the implementation team were untenured, assistant professors, who had been at the school for two years. Some faculty members thought they were "crazy," but they were more concerned about providing a quality education. This attitude reflects the attitude of all members of the implementation team that were interviewed. They seemed to be making the efforts more for the students' benefit than their own.

At the same time, the school did give some faculty released time to work on designing the core, reduced their teaching schedule, and rewarded them with a few thousand dollars of the grant money at the end of the first year of the core. Respondents indicated that these things did help reward their efforts, but more than one also mentioned putting in long hours

from early morning into the late night that "nobody ever knew about." Another mentioned that if anything, they lost money because they were giving up time they could be spending on more lucrative endeavors such as consulting or research.

The members of the implementation team volunteered to work on the project, and even in their initial discussions faculty members realized the required effort to accomplish their goals would surpass any personal monetary benefit.

> "We also recognized that we would be forced to defer some of our other scholarship activities if we were to be successful in a timely completion of the project. The impetus for involvement in this effort came from a desire on each individual faculty member's part to try something new in recognition that what we were doing in the past, although very good, would not be sufficient for the future" (*Report*, May 14, 1992, p. 50).

Ideology and Program Mission. A driving influence behind the design and implementation of the junior core was the faculty's desire to build a strong program and try to do what would be best for the long-term potential of the student. The school's decision not to have a doctoral program but rather make their masters program their focus, enabled them to place such effort on designing a junior core that leads into the masters program. One respondent identified another factor influenced by their lack of a doctoral program,

> "If your emphasis is on either a masters or bachelors your emphasis on research is not quite as pointed as it is if you have a Ph.D. program. So although the faculty are encouraged more and more to do research, they put a very high component in their profession on teaching--and that has been a positive."

Because of the school's desire to build a strong, reputable program, they were one of the first accounting schools to move to an integrated five year program. Over 30 states now require 150 hours of accounting education for certification, but this school has been emphasizing that since the 1970s. Respondents often referred to their response to the 150 hour requirement to demonstrate that the school has "always" been interested in curriculum change--"it's quite traditional."

Course and Program Evaluation. Even though the school has a history of responding to the needs of the profession, the faculty were uneasy about designing the junior core--they did not feel that they possessed the expertise or "know-how" to make it perfect the first time. Therefore, they decided they would operate using "trial and error." The grant stipulated an evaluation component for the project, and under the direction of their educational consultant, the school decided to conduct ongoing evaluations that provide them with information to make necessary changes throughout the year.

In addition to several forms of analysis, they wanted to be responsive to students. The students knew that they were "guinea pigs," and the professors wanted them to be happy. So they would have "gripe" sessions and ask them for feedback. This feedback affected the grading system, the organization of the core, and the coordination of assignments and activities. Professors emphasized that the students input did not affect the content of the core, only the process of delivering the core.

At the time this study was conducted, the school was beginning their third year of the junior core. There have been a few changes, but not major ones. The structure has stayed largely the same.

Student Body. The faculty describe their student body as "very committed," with a "high work ethic" that is tied into their religious beliefs. The school's student body is older, and a majority of them have spent two years of volunteer service for their church, in which they had to discipline themselves and many experienced living in different cultures. Over half of their students are also married, and these factors combine to produce what the faculty see as a more mature, committed, and balanced student body that is "anxious to do well." The program's attrition rate after the first year was less than 1%, and the faculty believe that if they continue to admit quality students and the faculty are excited about the program, then the students will stay in the program. Although the student body is unique to the school, faculty members do not think that this influenced their ability to implement the junior core.

At the outset of the first year, the faculty told the students that they wanted feedback and wanted them to become partners in establishing the curriculum. When the students gave feedback and then returned to class to find things had changed, they actually trusted the faculty and felt like they were partners. This relationship helped to alleviate students' discomfort with coming to an entirely new type of curriculum. According to one faculty,

> "When they start, being accounting students and very number oriented, they're very uncomfortable. But we have already found in the two years that we've been through, they are much better equipped to deal with real life, to deal with organizations, and to deal with change coming up."

The main concern of faculty is that according to the results of an exam the students take at the end of their junior year, overall the students have lost some technical ability. They did not do as well as the faculty expected, and the second year the results were about the same as the first year. Faculty also sense a decrease in technical ability based on class interaction. But the students are conversant and able to integrate things. The hope is that as they get into the master's program, the technical skills will build back up. The feedback the school receives from employers is that as long as the students have the non-technical skills, and are adequate on technical ability, then they don't need to drop the expanded competencies.

Summary. The instructional methodology and structure of the curriculum were not ideal to all faculty members at the school, so when the external reports were released, these professors were able to use the influence of the reports to support their ideas and work toward changing the curriculum. As they began to develop their ideas into a structured curriculum, they were influenced more by what they wanted to accomplish and how they could incorporate the learning objectives into the accounting curriculum. The ability of the faculty to work together and compromise on curriculum issues, plus the dedication to teaching of several members of the faculty allowed the team to design and implement an integrated junior core of 24 credit hours. The make-up of the faculty team contributed to its success and to the support of its proposals received from the rest of the faculty.

As mentioned under the discussion of external influences, when the reports came out, the faculty members saw an opportunity to use these influential organizations as support for their own ideas. They thus grabbed hold of the recommendations that they agreed with, and adapted their focus to reflect the commonalties of their ideas and the commission recommendations.

Once this was accomplished, though, the faculty team became very developmental in establishing goals based on the background of their faculty members, and resolving conflict internally to meet the needs of the professors involved, rather than external groups. Those involved in the design and implementation of the junior core were not concerned about the university's reward structure or their evaluation because they felt that they were improving the program. Because they view past curriculum changes as "at the forefront" of accounting education, and therefore consider their program to be very strong and reputable, they felt very confident that what they were doing was a continuation of this "tradition" and would only produce a better program. With this attitude of freedom and experience, the planners exhibited the creative and innovative abilities discussed with external influences as they forged ahead to design an integrated curriculum that had not been part of their grant proposal or part of their initial plans for change. The junior core represented an entirely new arrangement for presenting content which supported their ideas to incorporate non-technical competencies in the curriculum.

CONCLUSION

For the School of Accountancy, the strong external influences of publications and professional associations combined with the strong internal influences of faculty background and mix and curricular tensions to produce a curriculum change more comprehensive than the faculty had thought they would end up with. Devoted to providing a strong program for the students, faculty members felt that they needed to adapt to the external proposals in order to remain "at the forefront" of accounting curriculum.

At the same time that they were willing, even eager to adapt to external recommendations, the faculty also became very developmental as they designed their objectives and considered that the university would support their proposal. As they designed and then implemented the changes, they also displayed elements of Friedmann's innovative behavior when they used existing faculty ideas, faculty resources, and building resources to develop a new curriculum structure that promoted their own goal.

CONCLUSION

In the case studies section of this paper we have described answers to three general questions about professional preparation programs:

1) What degree of influence do the external, internal, and intraorganizational factors exhibit as they interact to stimulate curriculum change in three professional programs?

2) What planning strategies were used by faculty to examine the curriculum in these programs?

3) In what ways were the strategies used by program planners related to the factors influencing the professional preparation environment?

The purpose of this section of the paper is to highlight and suggest implications of the study. We recognize this paper is subject to the limitations of case study research for generalizability, particularly when the three programs studied are each nationally ranked among the top five programs in their field. Notwithstanding these limitations, we do learn about the relationship between planning strategies used by program planners and influences acting on professional preparation programs.

As Toombs and Tierney (1990) suggest, we saw that the move to revise curriculum originated from a sense that the curriculum was "no longer achieving its intended purpose" (Toombs & Tierney, 1990, p. xiii). In all three of the cases, changes in the environment created a need for change in the knowledge base and skill set of the professional. As the programs became aware that their curricula had not adjusted in preparing graduates for a new

professional role, they began to adapt to the needs of the profession as external factors influenced the program.

The influence of the profession on program change suggests that institutions or schools need to establish and maintain mechanisms that facilitate feedback between programs and practitioners. The research suggests that the requirements of the successful practitioner is changing more rapidly than the professional school curriculum. Yet, schools are expected to be on the leading edge of advancements in the field. This raises the following research questions: (1) What influences practitioners to change their practice? and (2) How responsive should professional schools be to practice and employment?

The perceived reputation of all three programs also played a key role in influencing their behavior. Because each wanted to maintain its reputation, each adapted their goals and objectives to reflect the educational recommendations being made at the national level. A professional program not considered a top program might not react in such an adaptive mode since its curriculum is subject to much less scrutiny and visibility.

Nordvall (1982), Seymour (1988), and Trinkhaus and Booke (1980) assert that a clearly stated, agreed upon mission, and a clear understanding of goals facilitate curriculum innovation. All three programs clearly agreed that their goals included maintaining an established reputation: this influenced each program to seriously review their curriculum and aided in gaining faculty support for change. However, of the three programs only pharmacy seemed concerned about the mission-related conflict between faculty research and teaching.

University organization plays a key role in the success of curriculum changes and the progress of each of the case studies in this report. Both Nordvall (1982) and Seymour (1988) indicate that decentralized decision making structures facilitate change in curriculum. Each of the programs experienced freedom and autonomy in making decisions and establishing goals. For the Business School and the School of Accountancy this led to developmental planning, as they formulated methods to achieve their goals--regardless of university influence. The College of Pharmacy, however, developed its own goals and objectives. However, the

influence of the university's research mission led the program back toward adaptive behavior. The influences of reputation, mission, and university organization raise the question: What factors determine the priority of certain elements of the professional program mission?

With the exception of the accounting case, faculty appeared reluctant to engage in curricular change. In all three cases, the process of curriculum review began as a result of a dean's interest and leadership. Even in the accounting school the program director initiated the discussions on curriculum change. This finding reflects the suggestion that top-level administrative support and involvement is a crucial strategy in facilitating curriculum change (Baldridge, 1980; Dressel, 1987; Seymour, 1988; Toombs & Tierney, 1991), and indicates that deans ought to develop a commitment to curriculum and curriculum change.

The internal dynamics of faculty mix, faculty background, and program structure began to interact as the programs adapted to the external proposals to produce either innovative or allocative planning behavior. Both the Business School and the School of Accountancy became innovative in their design of curriculum. Each school used existing faculty resources and existing program structure to develop scheduling arrangements and a curriculum framework that would enable them to implement new learning experiences in the curriculum. The College of Pharmacy focused more on allocating resources as the competing interests of the program's disciplines exhibited strong influence on the program planners. The internal dynamics appear to influence the level of innovation and design of the curriculum.

The Carnegie Corporations' *Three Thousand Futures* (1980), provides a checklist of actions that colleges and universities should undertake to prepare to meet the challenges of the next 20 years. The list includes a suggestion promoting curriculum change toward innovation and flexibility, and encourages schools to reserve funds for innovation. The inference is that funding is essential for innovation and curriculum change. The current body of literature supports this premise (Baldridge, 1980; Nordvall, 1982; Seymour, 1988; Toombs & Tierney, 1991). The presence of funding for the Business School and the School of Accountancy influenced both schools to implement change. The availability of funds, either for

compensation or for operationalization, tended to evoke creativity and innovative approaches to designing curriculum. The College of Pharmacy's constrained budgets and dependency on research for funding stalled efforts to move ahead in operationalizing outcome goals. The importance funding played in these three cases suggests that when a profession discovers that schools are not properly preparing graduates for practice, they should plan to provide funding incentives if they expect to promote rapid change in programs that largely operate under strained budgets.

The three schools used quite different mechanisms for addressing curricular issues. Seymour (1988) admonishes schools to consider their comparative advantage. He claims that an organization needs to look inward and "identify, nurture, and exploit its special capabilities" (p. 35). The Business School drew on the success of their executive education program to develop curricular innovations and then fund them. The accounting school employed a faculty member from the department of education to help design their project. The pharmacy school used the suggestions in the literature to guide their discussions and then consistently drew from their own faculty members' ideas and suggestions. The seeming success of these differing approaches to obtain faculty approval and acceptance of goals suggests that the internal characteristics of each school may lead to individualized blueprints for successful change.

These three programs appear to be fairly independent of accreditation and licensure requirements--possibly because of their established reputation and consistent accredited status, or possibly because the faculty feel that changes in accreditation requirements will reflect the proposals made by external organizations and will occur after they have already implemented necessary changes. The pharmacy program exhibited more concern than the other two programs, especially with licensure of its graduates. Pharmacy is the only profession of the three requiring graduates to obtain licensure before practicing. This suggests that programs preparing graduates for a practice requiring licensure may be more closely tied to preparing graduates to meet licensure requirements.

In evaluating the new curricula, both the Business School and the School of Accountancy implemented evaluation techniques which helped to guide minor changes after the first year for the business program and throughout the first year for the accounting program. However, the main indicator of whether these programs' curriculum is meeting the needs of the profession will come from the employers of the schools' graduates and the graduates themselves. The results of this feedback are yet to be seen.

A common theme through the three cases is a commitment to and an interest in new instructional strategies that promote critical thinking skills and life-long learning abilities in students. The "explosion" or change in knowledge base in each field led educators to develop outcome goals that teach students to learn rather than memorize lists of facts. An interesting question raised from this theme is: What factors prompt professional programs to focus curriculum efforts on professional competencies rather than technical competencies?

The Stark et al. (1986) framework provided a solid foundation for identifying factors influencing curriculum change in the three programs, and planning behaviors fit well into the Friedmann (1967) model. The findings of this study suggest that adaptive planning behavior occurs when programs react strongly to external influences. Adaptive planning behavior then leads to innovative behavior as program planners discover ways to use internal structure and program characteristics in creative ways that promote their ideas and objectives. However, when internal factors resist proposals for change, planning becomes allocative as planners try to find a curriculum design that takes into account the aggregate needs of the college. The study also suggests that developmental planning in professional programs is related to the level of confidence and expertise among program faculty. Another important factor impacting developmental planning is the degree of freedom a university allows a program to adapt to the changing profession in an unique way.

Further research is needed to study external influences affecting typical professional programs and to study further the relationship between professional programs, the professions they serve, and the mission of the programs.

Appendix

Professional Preparation Environment: The environment which evolves as a product of external, internal, and intraorganizational influences.

External Influences: Factors from outside the immediate program which influence the professional preparation environment.

Societal Influences:

Reward System: The payment and social status received for services rendered.

Marketplace for Graduates: The availability of jobs for the new professional.

Media: The manner in which the media portrays the profession.

Government Policies: The degree to which the government regulates the profession.

Licensing: The setting of entrance standards and persistence requirements by those outside the profession.

Professional Community Influences:

Knowledge Base: The knowledge which the profession deems necessary for successful practice and/or specialization.

Client Orientation: Whether the profession is oriented toward service to individuals or groups; service that is altruistic or contractual.

Practice Setting: Available facilities for field or clinical experience.

Professional Association: The degree of autonomy allowed or amount of regulation imposed on members of the profession by professional associations.

Accreditation and Standards: Standards set by accrediting agencies linked to the colleges or professional associations.

Market Control: Regulation of the number of new professionals entering the market.

Ethics: Levying and enforcing codes of ethics.

Publications: Professional publications that influence practitioners and trainers.

Alumni Involvement: The degree to which alumni are involved in influencing professional education.

Intraorganizational Influences: Influence of the university, school, college, department, or division on the specific program.

Mission: The history, traditions, and purposes of the encompassing institution.

Program Centrality: The significance of the program in conveying the mission of the institution.

Program Interrelationship: Relation of program to other units of the institution.

Financial/Technological Support: Support received from the encompassing institution or from units within the institution.

Governance Patterns: Degree to which the encompassing organization influences the curriculum and processes.

Internal Influences: Influence by components of the professional education program itself.

Mission, Staffing, Program Organization:

Faculty Background: Education, specialization, experience of faculty.

Faculty Mix: Ratio of men to women, ratio of representatives from various ethnic backgrounds, ratio of practitioners to theorists.

Ideology and Mission: The emphasis--research, teaching, service; the balance of levels--grads and undergrads; types of students sought.

Evaluation of Faculty: Evaluation methodology, frequency, criteria, etc.

Structure of the Professional Program:

Specialization: Differentiates a general program for all students from a program divided into areas of specialization.

Time Requirements: Amount of time required to complete the program.

Evaluation of Students: Evaluation methodology, criteria, frequency, etc.

Student Mix: Ratio of men to women, ratio of representatives from various ethnic backgrounds, etc.

Student Entrance Requirements: Criteria for entrance into program.

Student/Faculty Ratio: Number of students per faculty member.

Program Evaluation: Evaluation methodology, frequency, criteria, etc.

Curricular Tensions:

Methodology: Teaching strategies and methods of presenting knowledge.

Balance of Practice and Theory: Degree of emphasis given knowledge, skills, and practice (clinical/field experience).

Core Courses: Courses that are the basic foundation of the program.

Contextual Study: Supporting study and the extent to which the professional program builds on it.

Sequencing of Courses: Order in which courses--professional and nonprofessional--are taken.

Course Evaluation: Evaluation methodology, frequency, criteria, etc.

Continuing Professional Education: Sponsorship of degree or non-degree programs to update graduates and other practitioners.

Source: Stark, J.S. et al., 1986, pp. 253-255.

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