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AN ANALYSIS OF WHY MULTICOMPETENCY EDUCATION PROGRAMS EXIST IN CERTAIN TWO-YEAR TECHNICAL COLLEGES IN OHIO

The Ohio State University

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AN ANALYSIS OF WHY MULTICOMPETENCY EDUCATION PROGRAMS EXIST
IN CERTAIN TWO-YEAR TECHNICAL COLLEGES IN OHIO

Dissertation

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy in the Graduate
School of the Ohio State University

By
Ellen Maria Quintilian, B.S., M.S.

* * * * *

The Ohio State University

1986

Dissertation Committee: Approved by
William Moore, Jr. Adviser
Luvern L. Cunningham College of Education
M. Rosita Schiller Department of Educational
Policy and Leadership
DEDICATION

To Randy
who inspired me throughout this endeavor.
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VITA

Education

May 26, 1952. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Born - Baltimore, Maryland

1972 - 1974 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . B.S., Ohio State University
Columbus, Ohio

1975 - 1977 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . M.S., Ohio State University
Columbus, Ohio

1982 - 1986 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Doctoral Program in
Educational Policy and
Leadership

FIELDS OF STUDY

Major Field: Educational Policy and Leadership, Program in
Educational Administration

Studies in Educational Administration.
Proфессors William Moore, Jr., Lonnie Wagstaff, and
George Ecker

Studies in Management and Human Resources.
Proфессors H. Randolph Bobbitt, Jr. and Jeffrey D. Ford

Publication:

Quintilian, E: Influential Factors in Minority Recruitment and
Retention in Health Sciences. J Allied Health
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CHAPTER 1
THE RESEARCH PROBLEM

Introduction

The current health care system in the United States is in a state of transition, brought on in part by a new governmental payment plan. More specifically, on October 1, 1983, the Department of Health and Human Services implemented the Prospective Payment Plan for the reimbursement of hospital inpatient services provided to over 30 million Medicare recipients. The Plan was designed and implemented to contain spiraling health care costs, since total spending on health care has risen at an alarming rate. The highest average rate of increase up to 1974 was 10.2 percent per year, since that time the rate has increased up to 13 percent per year each year.\(^1\)

The new reimbursement scheme changes the way in which hospitals are paid for their services. Hospitals, excluding mental health institutions and children’s medical centers, are adhering to a payment schedule that appropriates payments for services prospectively. The payment schedules are based on the Diagnostic Related Group (DRG) rate which means that hospitals receive a predetermined per-case payment rate derived from a 1979 disease classification system.

In addition to the strong potential for decreased income due to the new reimbursement scheme, the demand for inpatient services has been steadily declining, which is resulting in decreased revenue. Reasons
for the decrease in demand include: (1) an overall decrease in the
need for hospitalization due to an increased demand for outpatient
services; (2) an increase in numbers in both the 35-44 and 75-84 age
brackets resulting in a greater demand for chronic disease care and
outpatient acute services; (3) an increase in consumer awareness and
involvement in preventive health care; (4) growing expectations
of public regarding accessibility to a wider range of health care
services beyond the typical inpatient acute care provided by
hospitals; and (5) increased expedience in performing procedures due
to technological advancement.

There is another dimension which exacerbates the problem.
Competition from for-profit hospital corporations such as the Humana
Corporation and Hospital Corporation of America has increased steadily
over the past 8 years. The for-profit operation of 24-hour
emergency and outpatient surgery centers has resulted in the decreased
demand for inpatient services usually provided by voluntary,
non-specialized hospitals. Lastly, the focus on diversification of
services by hospital management has resulted in both the acquisition of
geriatric care facilities and the development of home health care
divisions of hospitals.

The developments previously discussed have resulted in a rapidly
changing health care provider environment. Connected to this
environment, and affected by changes within it, are the educational
institutions that train health manpower. Colleges and Schools of
Allied Health in universities, and allied health divisions of community
and technical colleges are linked to the service institutions through
manpower provision. The product of the educational institutions functions within the transformation processes of the service provider organizations. Changes in provider needs will eventually create the need for change in the product and subsequent processes used to produce the product within the educational institutions.

Hospitals have begun to reduce financial risk through several courses of action. Scanlan studied the effects of DRGs in New Jersey and found that creative staff management was one way hospitals were attempting to decrease operating costs. Creative staff management consists of the following:

1. using internal resource pools;
2. consolidating jobs and tasks of all hospital workers; including allied health professionals in ancillary service areas;
3. using volunteers more effectively;
4. using more part-time and contracting services;
5. using multicompetent technicians;
6. and selectively reducing the workhours and workforce.

As hospitals respond to a dynamic health care environment in which their costs are being challenged, it is anticipated that the amount, the level and the types of services offered will change. Concomitant to these changes will be an alteration in the amount, level, and types of human resources needed to provide the services.

The question then arises - in what way will the manpower providers respond to the changes in their environments given the modifications being made by hospitals. In strategic terms, in what way will the two year college allied health division restructure itself according to the stage of its product or markets (in this case both)? Indicative of
Restructuring is the pattern in important decisions that ultimately reflect an attempt by an organization to align itself with its environment.

If the underlying philosophy of the allied health professions is to provide the service sector with personnel (i.e., producing a viable product for a given market), then some response should be occurring among the primary educational organizations including the two year college allied health divisions. Support for the concept of the allied health divisions product-market mission is given in a statement from the National Commission on Allied Health Education (NCAHE) report, The Future of Allied Health Education: New Alliances for the 1980s. The report\(^{(4-p159)}\) states, "The primary purpose of allied health education is to prepare students for health service."

Two-year colleges, both comprehensive community and technical colleges, house over one third of all allied health education programs in the United States. The number of programs in the community/technical college category has been steadily increasing, while the number of hospital and university sponsored programs have remained the same or decreased.\(^{(5)}\) Thus, the two-year college remains a significant provider of allied health manpower to provider institutions. To continue in this role, the two-year college will inevitably respond in some manner to both current and planned changes for using allied health manpower within provider organizations.
The Multicompetent Technician

One such change which has been occurring on a limited basis in a few states is the development of training programs which produce a multicompetent allied health technician. This allied health worker possesses the knowledge and the skills to function in a limited capacity in more than one ancillary service area. While not much empirical research has been done on multicompetency education in allied health, one often encounters skepticism and resistance to the concept from allied health professionals in most disciplines.

The concept and training of a multicompetent allied health worker have been in existence since the mid-1970s. Several schools have responded to local rural needs for this type of practitioner by developing multicompetency training programs at the two-year associate degree level. Both the School of Community and Allied Health at the University of Alabama at Birmingham and The School of Technical Careers of Southern Illinois University produce a multicompetent clinical technician through associate degree programs.

Research has been indicative and reiterative of the need for the multicompetent allied health technician. Clark (unpublished data, 1979) of the American Medical Association Department of Allied Health Education and Accreditation, surveyed 250 hospitals throughout the United States and found multicompetent technicians working in small rural hospitals (fewer than 100 beds) and in one and two person physician practices.
In such hospitals and practices, the use of a multicompetent technician was financially more feasible since there is not always enough work to hire and maintain several different credentialed professionals. Thus, this type of professional could fulfill the role delineated by Scanlan in the creative staff management concept. Costs could be reduced by creating a more efficient work force within the allied health service areas.

Support has been expressed for the training of a multifunctional allied health worker as a means for controlling both health care costs and the proliferation of narrow disciplines by the National Commission on Allied Health Education.\(^{(p133)}\) The report highlights the need for developing a response to changing health care provision:

the outlook for health services and changing manpower utilization patterns...points to an increasing need for personnel who can function in a variety of settings and exercise a wide range of skills. Moreover, the fact that the functions of most health care personnel overlap to a significant extent makes the concept of a generalist both rational and feasible.

In addition to the NCAHE report, the Coordinating Board of the Texas College and University System calls for the training of a multidisciplined allied health professional who could perform a limited number of procedures in several areas.\(^{7}\) The Board \(^{7}\) cites retraining as the mechanism to extend the roles of the allied health professional and to provide lateral career movement. These references along with the Scanlan study \(^{3}\) indicate that both a meaningful role and a valid need for the multicompetent technician do exist.
Multi competency Programs within Two Year Colleges in the State of Ohio

In the State of Ohio, the focal state of this research, the Board of Regents approved one and reviewed another multi competency technician associate degree program. At Columbus Technical Institute in Columbus, Ohio, an allied health generalist will be produced who will possess skills in a minimum of three different allied health areas. Cincinnati Technical College in Cincinnati, Ohio proposed to the Board of Regents a multicompetent geriatric practitioner associate degree program that would educate a multicompetent allied health worker who will specialize in geriatric care.

Thus, out of 21 two-year comprehensive and technical colleges and branch campuses, one, Columbus Technical Institute, has received approval for implementing the multi competency program. A second, Cincinnati Technical College, has received preliminary approval to investigate the need for producing a multicompetenced allied health practitioner. These two technical colleges are making internal adjustments in an attempt to meet the changing environment within which their graduates will be employed.

A Strategic Typology

This research was concerned with explaining why two technical colleges out of twenty-one two-year institutions are developing multi competency training programs in allied health. A proposed theoretical framework for explaining why organizations adapt in certain
ways was developed and researched by Miles and Snow. Based upon organizational research in the college textbook publishing, electronics, food processing, and health care industries, Miles and Snow identified four types of strategies within these industries that typified how the respective organizations were adjusting to their environments. These are the defender, the analyzer, the prospector and the reactor. The types are as follows:

1. **Defenders** are organizations which have narrow product-market domains. Top managers in this type of organization are highly expert in their organization's limited area of operation but do not tend to search outside of their domains for new opportunities. As a result of this narrow focus, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Instead, they devote primary attention to improving the efficiency of their existing operations.

2. **Prospectors** are organizations which almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends. Thus, these organizations often are the creators of change and uncertainty to which their competitors must respond. However, because of their strong concern for product and market innovation, these organizations usually are not completely efficient.

3. **Analyzers** are organizations which operate in two types of product-market domains, one relatively stable, the other changing. In their stable areas, these organizations operate routinely and efficiently through use of formalized structures and processes. In their more turbulent areas, top managers watch their competitors closely for new ideas, and then they rapidly adopt those which appear to be the most promising.

4. **Reactors** are organizations in which top managers frequently perceive change and uncertainty occurring in their organizational environments but are unable to respond effectively. Because this type of organization lacks a consistent strategy-structure relationship, it seldom makes adjustment of any sort until forced to do so by environmental pressures.
Miles and Snow\(^9\) believe that the typology specifies relationships among strategy, structure and process to the point where entire organizations can be portrayed as integrated wholes in dynamic interaction with their environments.

Hambrick\(^9\) used the same framework with private liberal arts colleges when relating environmental scanning to organizational strategy. Other types of educational institutions were not included in the sample, because Hambrick assumed that public four year and two year colleges would be too restricted in their product-market initiatives. Hambrick contends that constraints on initiatives stem from local influence coming from various facets of the community and state level governing and/or coordinating boards.\(^9,10\) Scott\(^11\) believes that another source of constraints in health professions practice and education would be the "professional monopolists" within professional accrediting and licensure organizations.

**Purpose of the Research Study**

The allied health divisions of comprehensive community colleges, technical colleges and two year branches of universities within the state of Ohio face a changing external environment due to changes in fiscal reimbursement and delivery of services within the health care system. In response to these changes, some colleges are providing multicompetency training for allied health students, while others facing the same changes have not modified their training of allied health students. The purpose of this research was to explore how and
why this phenomenon is occurring in some technical colleges yet not in others.

Objectives of the Research Study

The purpose of the study will be realized through the accomplishment of the following objectives:

1. to explore and describe the conditions within four two-year technical colleges which indicate why two of the colleges developed a multicompetency training program and why the other two did not;

2. to explain how specific variables or factors contribute to the presence or absence of a multicompetency training program in the four technical colleges;

3. to explore how strategic type may have partially influenced the development or non-development of a multicompetency training program in the four technical colleges;

4. to determine whether or not the strategic type framework is a useful typology in exploring reasons why administrators of allied health divisions in public technical colleges take the actions they do with regard to either planning or implementing multicompetency training.

Research Questions

Given the previously defined objectives, the following questions were used to guide the research:

1. Why was a multicompetency training program developed in two colleges and not in the other two colleges with perceived similar characteristics? (correlates with Objective 1)

2. What influence did the following factors have in the development of a multicompetency training program at those colleges which initiated such a program? (correlates with Objective 2)
   a. funding availability (internal and external)
   b. administrative support
   c. faculty support
d. external influence (local industry, academic institutions, professional and accrediting organizations).

3. What influence did the following factors have in the lack of development of a multicompetency training program at those colleges which initiate such a program? (correlates with Objective 2)
   a. funding availability (internal and external)
   b. administrative support
   c. faculty support
   d. external influence (local industry, academic institutions, professional and accrediting organizations).

4. Which strategic types are represented in the sample of four two-year technical colleges? (correlates with Objective 3)

5. Is a particular strategic type associated with the presence of either a planned or implemented multicompetency training program? (correlates with Objective 3)

6. Is a particular strategic type associated with the absence of either a planned or implemented multicompetency training program? (correlates with Objective 3)

7. Is the strategic type framework useful in explaining in part why certain allied health divisions within public two-year technical colleges are either planning or implementing multicompetency training programs? (correlates with Objective 4)

Definitions

For the purpose of this research, the terms listed below are defined as follows:

1. An Allied Health Professional is an individual trained in health care at the associate, baccalaureate, master's or doctoral degree level with responsibility for delivery of health care related services. For the purposes of this study, allied health professionals are not graduates of schools of medicine, osteopathy, dentistry, veterinary medicine, optometry, pharmacy or nursing.
2. **Administrative Support** is any action on the part of top level executives either singularly or as a group that positively influenced the development and/or implementation of a multicompetency training program. The actions could be informative, persuasive or promotional.

3. A **community college** is a two year, post secondary institution designed to provide academic, vocational, general education, and community service programs.

4. **External Influence** is composed of one or more outside forces that impact upon and precipitate some type of organizational change; in the two-year college this change usually occurs in the curriculum.\textsuperscript{12,13}

5. **Faculty Support** is any action on the part of faculty either singularly or as a group that positively influenced the development and/or implementation of a multicompetency training program. The actions could be informative, persuasive or promotional.

6. **Funding Availability** is the availability of funds for new program development.

7. A **Multicompetent Allied Health Professional** is an allied health worker who possess multiple skills and competencies inclusive of several allied health disciplines.\textsuperscript{6}

8. **Organizational Environment** is the general environment outside the organization which includes elements specifically and potentially relevant for the organization.\textsuperscript{14}

9. **Prospective Payment System** is a federally mandated reimbursement system in which hospitals are reimbursed for services provided through Medicare/Medicaid. Reimbursement is made prospectively instead of retrospectively.\textsuperscript{2}

10. **Strategy** is an identifiable pattern in the decisions and actions carried out in an organization aimed at maintaining the organization’s alignment with its environment and managing its major internal interdependencies.\textsuperscript{8}

11. **Strategic Type** is one of four principal types in a classification system that indicates how an organization adjusts to its environment. The types in the classification scheme represent an unified strategy pursued by an organization concerning its approach to the environment.\textsuperscript{8}
Assumptions

The assumptions made in this research were (1) that in order for an allied health division to develop a multicompetency training program at least two or more allied health programs must already exist within the college; (2) that the allied health leadership within the two year colleges is aware of the current changes in health care delivery and reimbursement systems; (3) the composition of the allied health leadership in terms of number and positions of individuals differs for each two year college; (4) the main mechanism for training multicompetent allied health professionals at the two-year technical college level is a formal program.
CHAPTER II
REVIEW OF THE LITERATURE

The intent of this literature review is to (1) examine the concept of organizational adaptation; (2) explore the conceptual and empirical foundations of the Miles and Snow typology; (3) identify the key research associated with the development of and utilization of strategic typologies; and (4) review the research related to the multicompetent allied health practitioner.

Organizational Adaptation

In this study, organizations are viewed as open systems. The view of organizations as open systems mandates that interaction between the organization and its environment occur. This interaction and subsequent impact upon the organization serve as the foundation for theoretical and empirical developments regarding the concept of organizational adaptation.

Organizational adaptation is viewed as the creation of a "fit" between external demands of an organization's environment and its internal structure, technology and processes. Researchers have emphasized different constructs commonly associated with organizational adaptation.

Early work by Tolman depicted an organization as an organism in its environment and stressed adaptability as key to survival. Survival
was directly related to the ability of the organism to develop cue systems and fine discrimination used in detecting environmental changes. Once "learning" about the environmental changes, the organism then took action to adapt to these changes.

In following the logic of Tolman, Ashby used the human nervous system in an analogy which exemplified his view on organizational adaptation. Ashby views organizations as both systems of internal relations and as parts of a larger system (the environment in which they operate). The nervous system is part of a larger more complex human anatomical system. The body is involved in situations that influence the nervous system, and the nervous system in turn influences the body.

Lawrence and Lorsch proposed that both the degree of structural differentiation and integration were influenced by environmental conditions. To achieve successful adaptation and organizational equilibrium the extent of differentiation and integration in an organization had to correspond to the degree of complexity of the external environment.

Weick took a different stand on organizational adaptation by affirming that an organization just does not respond to its environment, but in essence helps create that environment through a series of choices regarding markets, products and technologies. Child also theorized that organizations help create or shape the environment they face. Child's viewpoint is similar to Weick's regarding the role of strategic choice in how management goes about
shaping the environment in which the organization exists. Management, according to Child, enjoys great freedom and flexibility in manipulating the environment into line with what their organizations are currently doing.

The emphasis of a need for an organization to establish equilibrium with its environment and management's role in establishing that equilibrium based on their interpretation of the environment provided a base from which a developmental transition occurred. Theory and research would now focus on differentiating how adaptation occurred in organizations as well as for ways of classifying it empirically.

A Strategic Typology

Miles and Snow were two researchers who categorized strategies used by organizations for adapting to their external environments. Their framework was based upon the work of several organizational theorists whose work dealt primarily with organizational adaptation. The following paragraphs summarize conceptual developments in adaptation theory and relates them to the development of the Miles and Snow typology.

The initial definition of strategy was offered by Chandler as, "The determination of basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Mintzberg found this definition incomplete. He faulted the definition with suggesting that a strategy is explicit, conscious, purposeful and made in advance.
of the specific decisions to which it applies. Such exactness and explicitness, according to Mintzberg,\textsuperscript{22} did not take into account those strategies the organization may not have intended to pursue but yet are pursuing. In addition, the definition did not account for those strategies the organization was not successful in pursuing.

Mintzberg\textsuperscript{22} proposed an alternative definition of strategy as consistencies in the behavior in the organization as evidenced through patterns in streams of important decisions. The redefinition focused research on identifying consistencies in decision-making particularly as these decisions are implemented through the organization's structure and processes.

Miles and Snow\textsuperscript{8} utilized Mintzberg's definition as the basis for their research and conducted major studies in four different industries: textbook publishing, food processing, electronics, and voluntary hospitals. Their basic research question was, "Does the form of enactment of an organization--its selection and development of a particular domain within the larger environment--produce predictable patterns in managerial perceptions and in organizational structure and process?"\textsuperscript{8}

Based on their research structured to answer that question and subsequent findings, Miles and Snow developed a theoretical framework that categorized organizational orientations toward adaptation. The model includes three basic problems facing all organizations which must be solved if adaptation is to occur. These are the entrepreneurial problem, the engineering problem, and the administrative problem and are defined as follows:
1. The entrepreneurial problem: What products/services and markets should the organization select?

2. The engineering problem: What is the appropriate process or technology for assembling and delivering the products/services?

3. The administrative problem: What should be the structure and managerial processes for controlling and coordinating the activities or the organization?

Strategy involves coaligning the numerous decisions required to solve these three problems. Adaptation will then depend on movement through decision-making phases focused on solving the problems.

When conducting research in the college textbook publishing, electronics, food processing, and health care industries, Miles and Snow identified four types of strategies used by organizations. These organization types are called Defender, Prospector, Reactor, and Analyzer. In each case, the strategic types are associated with key solutions (patterns in streams of important decisions) to the three problem areas. The types are as follows:

1. Defenders are organizations which have narrow product-market domains. Top managers in this type of organization are highly expert in their organization's limited area of operation but do not tend to search outside of their domains for new opportunities. As a result of this narrow focus, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Instead, they devote primary attention to improving the efficiency of their existing operations.

2. Prospectors are organizations which almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends. Thus, these organizations often are the creators of change and uncertainty to which their competitors must respond. However, because of their strong concern for product and market innovation, these organizations usually are not completely efficient.
3. **Analyzers** are organizations which operate in two types of product-market domains, one relatively stable, the other changing. In their stable areas, these organizations operate routinely and efficiently through use of formalized structures and processes. In their more turbulent areas, top managers watch their competitors closely for new ideas, and then they rapidly adopt those which appear to be the most promising.

4. **Reactors** are organizations in which top managers frequently perceive change and uncertainty occurring in their organizational environments but are unable to respond effectively. Because this type of organization lacks a consistent strategy-structure relationship, it seldom makes adjustment of any sort until forced to do so by environmental pressures.\(^8\)

Miles and Snow\(^8\) believe that the typology specifies relationships among strategy, structure and process to the point where entire organizations can be portrayed as integrated wholes in dynamic interaction with their environments.

**Research On Strategic Types and Taxonomies**

Five studies encompass the significant research done on strategic types done in the mid to late 1970s. Mintzberg\(^22\) initiated the research trend by doing longitudinal analyses of the Volkswagen Corporation from 1934 to 1974 and the U.S. policy during the Vietnam War from 1950 to 1973. The studies were exploratory and primarily inductive.

Mintzberg formulated chronological lists of important actions and decisions occurring within the organization, as well as lists of events and trends in the environment of the organization. Newspapers, magazine articles, minutes of meetings, and interviews served as the sources for the data which comprised the lists.
The content of the lists was then segmented into distinct strategic periods. Strategies were then identified in these periods based on patterns found in important decision streams. From these patterns, Mintzberg concluded that two types of strategies exist. These are realized and intended strategies. Mintzberg\textsuperscript{22} also proposed that a strategy is not a fixed plan, nor does it change systematically at prearranged times dictated at will by top management.

In furthering this line of research, Mintzberg and Waters\textsuperscript{23} studied a diversified food outlet/pharmacy chain in Quebec. The study tracked the entrepreneurial firm of Steinberg, Inc. over a 60 year period. Again, patterns in decision streams formed the basis for determining strategy of the firm during given periods in the history of this firm.

From this study, the researchers concluded that strategy is cyclical with reorientations occurring after periods of time.\textsuperscript{23} Thus, organizations seem to vacillate between periods of "sprinting and pausing" in their strategic orientations. Sprinting is a period in which the organization goes through significant change, while pausing provides a period of very little change so the organization can renew energies in order to be ready to accept the challenge of the next period of change.\textsuperscript{23}

To summarize the work of Mintzberg, the research is basically qualitative and longitudinal. Although, his research characterizes strategy in several ways, organizations are not typed based on their strategy. However, his work did provide the basis from which types and archetypes would be later developed.
An empirical base was established in this area of research through the work of Miller and Frieson. They concluded that archetypes of strategy could be inferred from their analysis of 81 case studies of various organizations. Using case studies, they traced significant organizational transitions over periods of time in organizations.

Methodologically, Miller and Frieson specified variables according to their usefulness past research for explaining or predicting strategy. Once they identified the variables, these researchers examined the cases in search of those variables with uncommonly high frequency. Factor analysis was then used to determine "regions" where a large number of cases fell together given groups of variables.

The regions or clusters formed the basis of strategic archetypes defined by Miller and Frieson. The archetypes describe the most common combination of adaptive processes and structural mechanisms used by organizations. Six successful and four unsuccessful types are described.

Using Mintzberg's work as a basis for their own, Miles and Snow defined strategy again as patterns in streams of important decisions when researching organizations in the publishing, electronics, food processing, and health care industries. The thrust of this research focused on determining patterns in decisions that were indicative of strategy from which the process of organizational adaptation could be described and predicted.

The primary source of information about decisions and subsequent strategy formation, unlike Mintzberg (use of documents) and Miller and
Frieson (use of cases) was the perception of the top-level executive. Thus, the underlying premise to the Miles and Snow\textsuperscript{8} research and theoretical model is - how managers (top-level ones) think about or perceive their organization's environment will directly influence the form of adaptation pattern exhibited by that organization to align itself with the environment.

Top-level managers from a total of 84 firms in the four previously mentioned industries were sent questionnaires and were interviewed on the environment of the organization and responses made by the organization. Questions were designed specifically to acquire information on the rate of product/market change within the organization, which Miles and Snow view as shaping the overall (competitive) strategy of the organization.

Results were used to formulate a theoretical model that specifies the major decisions or choices that must be resolved before an organization can align itself with its environment. In addition, the model specifies four organizational types, each indicative of a particular strategic response. Each type has a particular configuration of technology, structure, and process that is consistent with its strategy. The types (defender, prospector, analyzer and reactor) have been discussed in the previous section.

Snow and Hrebeniak\textsuperscript{25} used the Miles and Snow typology in their examination of the relationship between strategy (as represented by the types) and two variables associated with strategy, distinctive competence and performance. Data were gathered on managerial perceptions in four different types of industries. Top-level
executives from 100 organizations in the plastics, semiconductor, automotive, and air transportation industries were sent questionnaires and interviewed.

Snow and Hrebeniak concluded from their research that all four of the strategic types identified by Miles and Snow were represented among the 100 firms studied. Defenders, Prospectors, and Analyzers showed competence in general and financial management. Reactors, on the other hand, have no consistent pattern of distinctive competence. Defenders, Prospectors, and Analyzers consistently outperform Reactors (based on the ratio of total income to total assets) in competitive industries but not in an industry that is highly regulated (in this case the air transportation industry).

The relationship of strategy (as represented by the Miles and Snow typology) and environmental scanning by top-level executives in three industries: private liberal arts colleges, voluntary general hospitals and life insurance firms was studied by Hambrick. Environmental scanning is the process by which top-level managers learn of events or trends outside the organization. Scanning, according to Hambrick, is carried out primarily in two modes - surveillance and search. Surveillance refers to a scanner who seeks general information, while search involves trying to find a particular piece of information for solving a specific problem.

Executives in 29 colleges, 33 hospitals and 15 life insurance firms completed instruments measuring scanning according to frequency (how frequently they learned of events or trends in the environment), interest (rate to which they made it a point to stay abreast of events,
trends, etc.), and hours (how many hours were spent per week scanning and the percentage of time directed at environmental sectors).

To measure strategy, Hambrick used a combination of (1) published data on product market additions (in the case of the colleges, new program additions in catalogs); (2) expert panel assessments of type (as defined by Miles and Snow in their typology) given the particular institution or company; (3) assessment by the chief executive officers. Hambrick concluded from the findings that upper-level executives did not indicate a consistent, concentrated tendency to scan according to organizational strategy. Thus, a relationship between strategy and scanning was not supported. Explanations for these findings include a general tendency among executives to scan according to their own personal or functional interests, lack of awareness of the organization's strategy or differences in how the researcher and the executives conceived of strategy.

More importantly, Hambrick notes that although the Miles and Snow typology was appropriate for the study, additional strategic dimensions or typologies should be used in future studies involving scanning. Lastly, future research should also consider the availability of environmental information when doing similar research.

The theoretical development of strategic types has its conceptual foundations in the work of Mintzberg who conceived of strategy as a pattern in a stream of important decisions. Several typologies were developed empirically and descriptively. Lastly, the framework of Miles and Snow was used to explore relationships with other key
variables associated with strategy for the purpose of explaining how organizational adaptation occurs and what critically influences it.

The Multicompetent Technician

Much of the literature on multicompetency consists of conceptual discussions, descriptions of existing programs and editorials. Empirical work is primarily descriptive. Surveys have been done concerning the utilization of the multicompetent technician and the need for this type of professional within rural health care settings.27,28 This section reviews the key articles which describe the conceptual foundations of multicompetency, as well as the survey research done on the concept.

1. Conceptual Literature and Program Descriptions

Pellegrino29 was one of the initial supporters of the concept of a multicompetent allied health professional. In a symposium paper on the problems and potentials of the professions, Pellegrino29 cites fragmentation and compartmentalization of tasks in the various professions as significantly problematic. Professions begin proliferating with many of the workers performing overlapping or very similar functions. In addition, professional organizations are quickly established to maintain turf resulting in each vying with one another for "professional prerogatives."29 The result is a confusing array of technical and professional personnel that increase the complexity and the cost of health care delivery often at the expense of the patient.
Pellegrino\textsuperscript{29} called for the creation of a "greater health profession" in which functional tasks would be consolidated resulting in a smaller number of health professions. Tasks would be classified according to the functional needs of the patient not according to those dictated from within the profession. The rationale for educating multicompetent allied health professionals was succinctly stated in this paper.

The National Commission on Allied Health Education (NCAHE)\textsuperscript{4} and the Texas Coordinating Board for Higher Education\textsuperscript{7} expressed similar concerns in the allied health literature. Both groups reiterated the need to reduce fragmentation in task performance by creating training programs that focus on common sets and subsets of knowledge. In separate documents, each group reiterates the need for a multidisciplined health professional who would primarily be used in small, rural hospitals and clinics.\textsuperscript{4,7} This multidisciplined individual could perform a limited number of procedures in several functional areas. The Texas Board\textsuperscript{7} emphasizes the primary benefits of cost effectiveness to user institutions and upward or lateral career mobility to the professional.

In a brief article on the multiple competency allied health worker, Blayney\textsuperscript{30} cited the main benefit from training and employing such an allied health professional will come in the reduction of manpower shortages in rural areas in addition to manpower cost reduction. Blayney\textsuperscript{30} also reviews the two-year associate degree program conducted by the Regional Technical Institute at the University of Alabama at Birmingham. The Multiple Competency Clinical Technician
program prepares graduates to serve primarily in physicians offices and clinics. Students receive training and develop skills in the areas of nursing, medical laboratory, radiography, office functions, emergency procedures, patient teaching and others.\textsuperscript{30}

Friedman\textsuperscript{31} describes a hospital-based training program in which multicompetent health care technicians are being trained at several different levels. The Denver General Hospital program was designed to provide upward mobility for employees aspiring to assume patient care responsibilities. In this training situation, the multicompetent technician is being trained and utilized within an urban hospital setting. Cost efficiency and upward career mobility were cited as the greatest benefits, while the lack of credentials and limited transferability to other programs were cited as major disadvantages.\textsuperscript{31}

Support for the concept of training multicompetent allied health technicians can be found in numerous additions of the Allied Health Newsletter published monthly by the American Medical Association’s Department of Allied Health Education and Accreditation. In a report on a Committee on Allied Health Education Accreditation (CAHEA) meeting held in October of 1984, the newsletter listed the thrust toward multicompetent or cross-trained allied health professionals as a topic that received the most attention throughout the meeting.\textsuperscript{32} In a May 1985 issue, Lugusbeel reviewed the essence of his discussions with allied health educators and professionals and hospital administrators from seven states.\textsuperscript{33} In summary, members of each group agreed that
the issue at hand regarding multicompetency was not whether to do it, but how to do it.

2. Survey Research on Multicompetency in Allied Health

Studies dealing with the multicompetent allied health worker are primarily descriptive and focus on assessing the need for such a practitioner. Clark (unpublished research, 1979) researched both the need for a multicompetent allied health technician as well as the utilization of the technician by family practitioners throughout the United States.

In his study, Clark (unpublished research, 1979) surveyed 1088 American Academy of Family Practice members concerning their utilization and need for a multicompetent allied health technician in their practices. Conclusions were based on a 64.6 percent response of 703 family physicians. Results of the study supported both the need for and verified the usage of technicians by family physicians in solo and group practices in rural and urban areas. Seventy percent of the respondents employed technicians either full or part-time, with three out of four indicating they felt the technicians were adequately trained. Lastly, 60 percent of the respondents indicated that they would consider using the technicians if they were available.

Bamberg and Blayney28 conducted a survey in which the need for multicompetency among graduates of baccalaureate programs in dietetics, medical technology, occupational therapy and physical therapy was assessed. Respondents included 264 alumni from a total of 1200 yielding a response rate of 22 percent.
Allied Health professionals in physical and occupational therapy and in dietetics indicated a desire to acquire skill preparation in areas outside their specific allied health major. Medical technologists were the only ones who did not indicate a desire for competencies outside their profession. Respondents represent practitioners employed within small, medium and large hospitals as well as comprehensive health care centers and clinics. Based on these results, the researchers conclude that support for broadening, if not training multicompetent allied health professionals does exist. In addition, input from practitioners desiring to acquire additional competencies may be valuable in the development and implementation of multicompetency programs.

3. Summary and Conclusions

Although major studies exist on the use of a strategic typology or theoretical framework to type or classify an organization's strategy, none exist that link strategic type to innovative program development in allied health education. In addition, studies on multicompetency do not address program development in an organizational sense. Research in this area is limited to descriptive surveys that focus on need assessment or scope of utilization of the multicompetent allied health worker.
CHAPTER III
METHODOLOGY

Introduction

The purpose of this chapter is to describe the methodology to be used in this research. The first section summarizes the rationale for using qualitative methodology. The second section explains how the study was conducted, while the third section delineates how the data were analyzed. Procedures for interviewing and letters of introduction are also included in this chapter. In the fourth section, the limitations of the research are discussed.

Rationale for Qualitative Methodology

The study was conducted using qualitative methodology. Qualitative methods are appropriate when the foremost purpose of the investigation is to describe and to develop an understanding of multiple realities.\(^{(34,35)}\) The aim of qualitative research is to disclose and reveal, not to order or predict.

1. Appropriateness of Qualitative Methods to the Study

In considering why certain two year colleges developed multicompetency training programs, one qualitatively studies the organizations, describing and explaining what is occurring within the organizations that contributed to the development of these training programs. In addition, closely studying unusual or extreme cases such as the colleges that have produced these programs provides useful
information, particularly to administrators who may be deliberating whether or not to attempt development of a similar program.

Due to the small population and number of technical colleges which have developed or implemented multicompetency programs, quantitatively studying this phenomena would produce biased results, particularly when attempting to make inferences based on probabilities. Searching for statistically supported systematic variance to support a hypothesis on why the two technical colleges developed multicompetency programs would be futile since less than one tenth of the entire population of two year colleges have developed the program.

2. Comparative Case Study Method

The innovativeness and uniqueness of the multicompetency programs particularly in light of the major changes in health care delivery necessitated an in-depth and detailed investigation and understanding of those colleges that have implemented the program and a comparison with institutions with similar characteristics that have not.36

A comparative case study methodology was used to glean in-depth information and to gain an understanding of why some colleges have developed programs and others have not. A comparative case study is a type of multi-case study in which two or more individual cases are investigated, and the results are compared and contrasted.

When using the comparative case study method, additional cases used for comparison and contrast to the ones initially chosen are selected on the basis of either the presence or absence of some particular characteristic found in the originally selected cases.34 In this study, the colleges that have multicompetency training programs were
initially selected for investigation, since these colleges currently have the program. A like number of institutions which do not have the program were also selected and used for comparison. The technical colleges that comprise the sample were researched in a sequential manner for the purpose of improving data gathering techniques.

Procedure

1. Sample

The population for this study consisted of 21 two-year, post secondary institutions that include branch campuses and comprehensive community and technical colleges which have two or more allied health programs. Of these 21 colleges, two have developed or implemented multicompetency training programs, while the other 19 have not.

A purposeful sample of 4 technical colleges was selected from the 21 colleges in the population. Purposeful sampling is a type of sampling used when the investigator wishes to acquire in-depth knowledge about a phenomenon and to understand something about certain cases without the need to generalize to all such cases. Two of the four colleges in the sample had developed a multicompetency program, while the other two are technical colleges had not developed a multicompetency program. This sample fulfills the requirements for conducting a comparative case study.

To determine why the two colleges developed multicompetency programs, a comparison was made with the two technical schools that had not developed or implemented multicompetency educational programs. The
pairs of colleges were matched as closely as possible on general characteristics, which included:

1. Type of institution (defined as two-year technical colleges by the State Board of Regents of Ohio);

2. Size of the institution including number of students, support staff, faculty and academic programs;

3. Similar allied health programmatic configurations and administrative structures;

4. Similar environment in terms of size of community, presence of other higher educational institutions, and mix of health care delivery services available in the community;

One step in determining whether or not these characteristics were present in those colleges included in the sample was to consult with the Ohio State Board of Regents where a repository of information on colleges in the State of Ohio is maintained. In addition, representatives from the technical colleges were contacted for information on the institutions and surrounding communities.

2. Data Collection Techniques

To determine the reason for developing and implementing a multicompetency training program and to link the development of a multicompetency program to strategic type, standard open-ended interviews were held with all personnel involved in both long and short-term decisions regarding new allied health program development and implementation.

Interviewing is the method of choice in a qualitative study when in-depth and coherent description of reality and much detailed data about that reality are desired. Although participant observation yields in-depth and detailed information on a phenomenon, program
development takes a minimum of a year to achieve, thus making observation impractical due to the time involved.

Patton cites three basic approaches to collecting qualitative data through open-ended interviews. These approaches include the (1) informal conversational interview; (2) the general interview guide approach; and (3) the standardized open-ended interview. These approaches differ to the extent in which interview questions are determined ahead of time and standardized.

The informal conversational interview relies on spontaneous flow of questions. The interview has no preset direction, no order and no structure to the questioning. It closely approximates conversation in the sense that one follows any line of questioning no matter where it may lead. The general interview guide approach involves outlining a set of issues that are discussed with each respondent. No specific ordering of questions exists. Questions are not predetermined.

The standardized open-ended interview was the approach taken in this study. All questions were carefully worded and arranged ahead of time. All respondents were asked the same questions with slight wording variations. Using a standardized interview schedule minimized interviewer effects, reduced the necessity for interviewer judgement during the interview, and made data analysis easier. To conduct interviews in this study, a set of questions was developed (see Appendix B).

A "casting of the nets" procedure was used to determine who was interviewed. An initial interview was held with the dean of Allied
Health. The Dean was asked to identify others who were close to the program decision or development processes or knowledgeable in these areas for interviewing. A total of 18 administrators from four technical colleges were interviewed.

3. Triangulation Procedures

To determine the strategic type of the technical college, a form of triangulation was used. In social science research, triangulation is the process of comparing and contrasting information drawn from different sources, and/or determined by different methodologies. Triangulation is used primarily to verify information on the same event or situation from different actors or participants and for producing more confidence in the data.

In this research, all administrators participated in an interview concerning the development or lack of development of multicompetency allied health program and completed a modified version of the Questionnaire for Strategy Assessment developed by Hambrick and based on the Miles and Snow strategic type framework. This instrument is found in Appendix A. The questionnaire was administered after the interview with the researcher seated in the room with the respondent.

In a telephone consultation with Snow (February, 1985), he strongly recommended that outside validation be used in addition to self-typing. To fulfill this requirement, triangulation was used. In addition to the respondents from the institutions, three experts on the typology were asked to type the four technical colleges in the sample. The experts received condensed versions of the interview data.
Condensation of the interview data was done by extracting statements from the fieldnotes which closely exemplified a descriptive characteristic of one of the four strategic types (see Appendices J through M). The researcher was well aware of the possibility of bias while condensing the data. Interview data were reviewed several times prior to finalizing matches between data and characteristics. The condensation of the data was necessary, since the expert panel members did not have time to review the manuscripts of the interviews in their entirety.

After reviewing the condensed data, the researcher and expert panel members completed the instrument found in Appendix N. Prior to completing the instrument, the expert panel members received a letter of introduction along with instructions on how to categorize the health technology divisions using the interview data (see Appendices D and E). The external panel of experts reviewed interview data from each college (see Appendices J through M). The researcher used the same set of responses when performing the categorizations. In addition, researcher and panel used characteristics of the four types provided by Miles and Snow, as criteria by which some classification of the responses could be made (see Appendices F through I). After the panel and selected college administrators completed the typing exercises, the results were analyzed to determine the extent to which each group agreed on the strategic type of each college allied health division.
4. Pilot Test of Interview Questions and Typing Instrument

The Questionnaire for Strategy Assessment (see Appendix A) used in the research was validated by Hambrick⁹ in his study of the relationship between strategic type and scanning. Cross validating the instrument involved a comparison of the researcher’s a priori categorizations assigned to the organizations, the categorizations provided by the chief executive officers, the categorizations by the researcher based on the interview data. A high degree of agreement existed among these sets of categorizations. Hambrick concluded that the Questionnaire for Strategy Assessment was a valid instrument.

To validate the interview questions and appropriateness of the typing instrument for use with allied health administrators and faculty, a copy of each was sent to experts in the area of multicompetency education. Dr. Keith Blayney and Dr. Arch Lugenbeel, who were involved with the development of the first two multicompetency educational programs in the country, were asked to review the questions and instrument for applicability, clarity and validity. In addition, the interview questions were also pilot tested with allied health administrators (one dean and two chairpersons) in a two-year college that was not selected for participation in the study.

5. Data Analysis and Display

In conducting field research, a researcher records what is said, seen or heard in the form of fieldnotes. In this study, transcripts of interviews were made. The transcription served as fieldnotes for the research.
Problems occur when trying to analyze raw data in the form of fieldnotes. Notes can be cumbersome particularly when attempting to analyze data from several different sites (cases). To analyze the data, cross-site analysis was used. Cross-site analysis is a form of qualitative data reduction in which data from each site is assembled into clusters and partitions. The purpose of the analysis is to compare sites or cases and by doing so, determine the processes and outcomes that occur across them. In addition, the comparison illuminates how processes are influenced by specific local variations particular to only one case.39(p152)

The use of cross-site analysis allowed the researcher to assemble data from each college and to partition the data along the proposed variables associated with the development and lack of development of a multicompetency educational program.39 Once the data were separated in this manner, they were further analyzed.

Further analysis included the construction of a meta matrix. This type of display is most commonly used in cross-site analysis.39 All descriptive data collected through the interviews were reduced to quotes, symbols or summarizing phrases and were displayed in rows and columns. Variables such as funding availability, administrative support, faculty support and external influence were listed along one axis with the colleges and administrators listed across the other axis. Clustering was done by looking across sites and down variables for patterns concerning the relationship of multicompetency program development to each variable. The most important patterns were those
that supported or reinforced the likely causes for the presence or absence of the development of a multicompetency program.

In addition to a cross-site analysis displayed in meta matrix format, a causal network was generated. A comparative analysis of all college allied health divisions in the sample on influential variables projected to be the most influential in accounting for the development or lack of development of a multicompetency education program was made. Analysis consisted of examining each set of interview data from the colleges to identify the set of variables that would influence administrators in the college to pursue or not pursue multicompetency program development.

6. Procedures for Interview Logistics and Follow-Up

An interview schedule was arranged for each college through the Dean of Allied Health who was contacted by telephone and then by letter. Any questions concerning the study were answered at that time. A tentative schedule was arranged and suggestions concerning additional interviewees were obtained.

All respondents were then contacted by phone and the interview times were arranged. During these calls taping procedures were explained and anonymity was guaranteed. The investigator conducted the interviews at the four colleges one by one. All taped interviews were transcribed on a word processor. Phone call follow-up was necessary to obtain statistics on the allied health divisions.
Limitations of the Study

The limitations of this research study were: (1) the use of public two-year technical colleges in Ohio limits the generalizability of the study; (2) limiting the sample to only two-year technical college allied health programs may in and of itself limit the emergent type; (3) interactive effects of strategy were not identified (4) while the evolution of strategic type has been researched, its evolution in the particular institutions was not examined, (5) the benefits of being classified as a certain type in terms of divisional effectiveness were not investigated.
CHAPTER IV
FINDINGS

The first section of this chapter describes the colleges and allied health divisions chosen to participate in the research. The second section details the pertinent findings of the pilot test and subsequent revisions in data collection procedures and instrumentation. The third section delineates the results of the strategic categorizations performed by this researcher, the panel of experts and the college administrators for all four college allied health divisions. The last section reports findings gathered from the responses to interview questions that addressed key organizational variables.

The purpose of this research was to investigate why certain two-year technical colleges had developed and implemented multicompetent allied health education programs and why others had not. The objectives of the study were to (1) explore the usefulness of the Miles and Snow strategic type model in partially explaining why certain colleges developed the program and why others did not; and (2) to describe and explore key organizational factors which influenced the college to either pursue or not pursue the development of a multicompetency educational program. Data were gathered using two methods. The first was an interview with key college administrators. The second was a questionnaire that asked the administrators to choose a strategic type that most closely typified their respective institutions.
Selected Colleges and Allied Health Divisions

Employing sample selection criteria explained in Chapter III led to the selection of four technical college allied health divisions as the focus of this research. The State of Ohio is typically treated in research as having four geographical quadrants. Based on college selection, the three quadrants represented in this research are the northwest, northeast and central quadrants. All colleges were located in metropolitan areas with a population of at least 400,000.

The structure of each college was multidivisional. Each college had a health technology division with at least five separate allied health programs, the completion of each leading to an associate degree.

College A is located in a large urban area. College enrollment totals approximately 7800 students. The Health and Human Services Division enrolls 800 of these students. Approximately 150 full-time and 300 part-time faculty are employed by College A, and there are 64 full-time and 50 part-time faculty teaching in the Health and Human Services Division. The health technologies section of the Division includes the following programs: Animal Health, Dental Laboratory, Emergency Medical Technician, Medical Laboratory, Mental Health & Retardation, Multicompetency, Nursing, Respiratory Therapy, and Optometric Assisting.

College B is located in a large urban area. Enrollment includes approximately 4,200 students. The Health Technologies Division is the third largest division and serves approximately 450 students. The College employs 110 full-time and 60-80 part-time faculty.
Approximately, 20 full-time and 6-12 part-time faculty teach in the Health Technologies Division. Programs offered through the Division include Respiratory Therapist/Technician, Dietetic Technician/Dietary Manager, Medical Assisting, Medical Laboratory Technician, Medical Record Technician and Surgical Technology. One year certification is offered in Medical Transcription, Electrocardiography, and Phlebotomy.

College C is located in a medium-sized metropolitan area in the industrialized northeast section of Ohio. The Allied Health Technology Division serves 526 students. These health technology programs are the most recently developed programs as compared to all of the other colleges. The programs include Medical Record Technology, Physical Therapy Assistant, Occupational Therapy Assistant, Medical Assisting and Medical Laboratory Technology. Approximately 3500 credit and 600 non-credit students are enrolled. The College employs 100 full-time and 150 part-time faculty, within the Health Technology Division employing 20 full-time and 20-30 part-time faculty.

College D is a multi-campus institution located in a medium-sized metropolitan area in northwest Ohio. It is the only two-campus college in the study. Together, these campuses have an enrollment of approximately 5000 students. One-hundred and twenty full-time and 200 part-time faculty are employed within the College. Enrolled within the Health Technologies Division are approximately 650 students. Thirty-two full-time and 52 part-time faculty are employed within the Division. The allied health programs offered at College D include Dental Hygiene Technology, Nursing, Optometric/Ophthalmic Technology,
Radiologic Technology with Majors in Radiography, Sonography, Radiation Therapy and Nuclear Medicine, and Surgical Technology.

Pilot Test Results

In order to refine the instrument and interview guide, a pilot test was conducted at a two-year college with a health technologies division similar to those colleges chosen in the sample. This particular college was not a part of the actual study.

The interview guide and strategic typing instrument were tested using a group of administrators similar to those who would participate in the actual study. These administrators were interviewed; all completed the Questionnaire for Strategy Assessment (see Appendix A).

Some respondents who participated in the interview felt less certain about their answers due to their length of tenure in the Health Technology Division. As the researcher interviewed these respondents, it also became necessary to clarify certain terms. The terms "market information" and "diversification into new product markets" were clarified for all respondents in both the pilot test and actual study.

When administering the Questionnaire for Strategy Assessment the researcher stressed to the chairpersons that they keep in mind the entire Division as they assess strategy, not just their respective programs.

Results of Strategic Typing

Once pilot testing and subsequent revisions were made in procedures and instruments, the researcher proceeded to conduct the actual study.
To determine the strategy used by a particular college, this researcher, three external judges, and a total of 18 administrators from the colleges completed instruments designed to assess perception concerning organizational strategy.

The results of the strategic typing provided by the researcher and expert panel members are displayed in Table 1. Health Technology Division A was classified as a Prospector by the researcher and one judge, while two judges classified it as an Analyzer. Health Technology Division B was classified as a prospector by the researcher and one judge, as an Analyzer by one judge and as a Reactor by the third judge.

Health Technology Division C was classified as a Defender by two judges and the researcher. The third judge classified the Division as a Reactor.

Health Technology Division D was classified as a Defender by the researcher and two judges. A third judge believed the division could not be classified, since he felt that the data from the college reflected some Defender, Reactor, and Analyzer attributes.

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</table>
Health Technology Divisions A and B were classified primarily as being either an Analyzer or Prospector type of organization by the researcher and panel members. Divisions C and D were classified primarily as either a Defender or Reactor type of organization by the researcher and panel members.

For the data analysis in this research, the administrators were divided into two groups, top and mid-level administration. Top-level administration included the dean, vice-president and president of an institution. Mid-level administration included assistant deans and chairpersons. All college administrators completed a modified version of the Questionnaire for Strategy Assessment (Appendix A) developed by Hambrick for use with private liberal arts college presidents.

Because of their involvement in the development of a multicompetency education program, five administrators at College A were chosen for the interviews and subsequent questionnaire completion by the Dean of Health Technologies. Results of questionnaire completion are found in Table 2. One mid-level administrator rated Health Technology Division A as a Prospector. Two (one top-level and one mid-level) administrators rated the Division as a Defender, while two (top-level) administrators rated the Division as an Analyzer type of organization.

In College B, five administrators, the Vice-President for Academic Affairs, the Dean of Health Technologies, the Assistant Dean of Health Technologies and two Program Directors (equivalent to chairpersons) were chosen by the Dean to participate in an interview and to complete
the questionnaire. Similarly, all respondents were chosen because of their involvement in either the development, implementation or approval of the multicompetency education program at the College B.

All mid-level administrators and one top-level administrator rated Health Technology Division B as an Analyzer type of organization. One top-level administrator ranked the Division as a Prospector.

**TABLE 2**

RESULTS OF STRATEGIC TYPING BY COLLEGE AND ALLIED HEALTH DIVISION ADMINISTRATORS

<table>
<thead>
<tr>
<th>Division Name</th>
<th>Defender</th>
<th>Prospector</th>
<th>Analyzer</th>
<th>Reactor</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>VP, CH</td>
<td>CH</td>
<td>VP, D</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>D</td>
<td>VP, CH, CH, AD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>CH</td>
<td>P, VP, D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>VP, CH</td>
<td>CH</td>
<td></td>
</tr>
</tbody>
</table>

Code:

*(Top-Level Administration)*

P = President

VP = Vice President

D = Dean

*(Mid-level Administration)*

AD = Assistant Dean

CH = Chairperson or Program Director

In College C, four administrators (the President, Vice-President for Instruction, the Dean of Health Technologies and a Program Chairperson) completed the questionnaire on strategic typing. All top-level administrators rated the Health Technology Division as an
Analyzer type of organization, while the mid-level administrator rated the Division as a Prospector.

In College D, two top-level administrators and two mid-level administrators rated the Health Technology Division according to their perception of the type of strategy used within the institution. One top-level administrator rated the Division as a Defender type, one top-level and one mid-level administrator rated the Division as an Analyzer type, and one mid-level administrator rated Division D as a Reactor type of organization.

Top and mid-level administrators from Health Technology Divisions B and C agreed the most as far as their perception of the strategy used by their respective divisions. The most disparate perceptions of strategy measured through the strategic assessment questionnaire were found in Health Technology Divisions A and D.

Interview Findings

In this section findings are presented according to the sequence of interview questions presented to the college administrators. Interviews were conducted with 18 college administrators for two reasons.

The first was to glean information concerning key organizational variables (funding own lability, administrative support, faculty support) and environmental variables (external influence by local industry, professional and accrediting bodies) which might also provide insight into why certain colleges did or did not develop multicompetency education programs. Questions two through five
(Appendix B) were designed to gather this type of information and addressed variables such as funding availability, administrative support, faculty support, and influence from external organizations such as employers, professional groups and accrediting and certifying agencies.

The second reason for conducting a standardized interview was to collect data which the researcher and the panel of experts could use in their categorizations. Questions seven through nine (Appendix B) were designed to gather information on how the college health technology divisions solved the entrepreneurial, engineering and administrative problems when attempting to adapt to their respective external environments. Miles and Snow® postulate that the solutions implemented by an organization when solving these problems forms the basis of the adaptation strategy.

The presentation of the interview findings begins with the responses to Question one (Appendix B), a general question designed to explore why the administrators from each college believed their respective health technology divisions had or had not developed a multicompetency education program.

1. Why was (wasn’t) a multicompetency program developed at this college?

The Health Technology Divisions of Colleges A and B were either in the process or had already developed and implemented a multicompetency education program. An analysis of administrative responses to this question produced several "threads" of perceptions on why this type of
program development was being pursued within the health technology divisions of these two institutions.

The administrators at both levels (top and mid-level) viewed the development of such a program as an opportunity for growth in terms of expanding enrollments and acquiring additional full-time equivalents. The top-level administrators in College B believed that implementing a multicompetency program was very congruent with the overall college mission of offsetting the trend of declining two-year college enrollments by providing new program offerings that would attract more and different types of students. The health technology program chairperson in College A reiterated this belief in answering the first question:

Student needs. I began seeing a number of individuals and the literature supported the idea that we were dealing with more adults...we were looking at a pool of 25-35 year olds...these individuals are interested in short-term training, quick entry into the job market and I envisioned that multicompetency would satisfy that. (Chairperson, College A)

In Divisions A and B, new program development that was novel enough to attract a different type of student, thereby increasing enrollments, was seen as essential to the viability of the institution within the community.

Another important perception involved the viewpoint that incorporating multicompetency into the curriculum was a sensible and very appropriate internal response to the external environment of the health care provider. The administrators in both colleges anticipated or sensed that hospitals, emergency care centers, home health care businesses, and long-term care facilities and nursing homes would want
to employ an allied health professional who could perform more than one set of duties. In other words, a certain group of potential employers would want to hire a multicompetent allied health worker. The Dean of Health Technologies at College B summarized this view succinctly:

...we are moving in that direction because our sense of the future is that's what is going to happen in the practice site and that type of individual is going to be the marketable graduate... In order for hospitals to continue to seek a cost effective delivery of cardiopulmonary services, they are going to want to hire someone who has some type of cross specialty.

The administration within Health Technology Division of College B was also in the process of exploring the possibility of initiating a second type of multicompetency program in geriatric care. Several top-level administrators cited the trend of an aging population, as well as a health care system that has ignored the health care needs of the geriatric patient, as the primary reasons for pursuing this line of program development. In addition, the demography of the division's service area includes a significant elderly population. Thus, an awareness of trends in health care service delivery coupled with information from their immediate service environment, contributed to the decision to pursue multicompetency program development.

In both colleges, leadership initiative on the Dean's part to explore the need for and to initiate the development of new programs was cited as another thrust for why multicompetency was pursued at these institutions. This was reiterated by several administrators from both colleges.

Yes, we assume all of this (your current work) is maintenance alright, everything you are doing now is maintenance, but...what are you going to do?...What new things should you be doing? (Vice President for Planning, College A)
I would have better status with higher administration if I’m opening a program vs losing one...Because growth is what keeps an institution viable...Lastly, if opportunities existed in the community and a division head (dean) just sat there and did nothing about them, you’d be replaced. (Dean of Health Technologies, College A)

In higher education, it is our experience at College B that what really makes a difference at this institution in terms of enrollment, is the number of different programs that we offer...if the Dean feels that there is a need for any kind of health manpower program they will initiate a multi-phasic process that will enable us to explore the potential. (Vice President for Academic Affairs, College B)

Probably because of the Dean...a lot of those decisions rest with the dean of the division...I think she planted the idea and supported suggestions (from chairpersons, faculty) for such a thing (multicompetency education). (Assistant Dean for Health Technologies, College B)

In the Health Technology Divisions of Colleges C and D, which did not initiate the exploration or development of a multicompetency program, very definitive threads of perception from the administration also emerged during the interviews. The lack of a very definitive community-voiced need stood out as the most significant reason why nothing had been done with multicompetency. If the environment communicated a specific need, then and only then did these colleges pursue new program development to meet that need. Unlike the Divisions within Colleges A and B, the Health Technology Divisions of Colleges C and D did not search the environment for potential opportunities. Nor was this type of activity stressed and encouraged by top-level administration. The President of College C expressed this type of strategy:

I think our program is geared on specifically what our community needs and on a wider need but not too wide as far as a regional need is concerned. We are fairly responsive to what the needs of the community are. I believe we shouldn’t
be telling the hospitals this is what you ought to have. I think we have to work with the hospitals and say, what do you need. Then, we’ll construct a program that will meet these needs. And we’ve been very successful doing it that way.

Rather than take an initiative to influence their environments, the leaders in these colleges waited for the environments to "tell them" what they should be doing as far as new program development. The Dean of Health Technologies at College D echoed a similar point of view when responding to Question 1:

I don’t recall any conversation ensuing about looking at such a program...We get a lot of expert advice from our advisory committees. As far as I know, we have not seen or heard from the people practicing in the community (the real practitioners) a need for multi-competent personnel.

Accreditation and certification issues were cited as potential deterrents to developing multicompetency programs by top-level administrators at both colleges. The vice-presidents for instruction from both institutions voiced similar concerns about the viability of the programs given the uncertainty of accreditation.

I think the accrediting agencies had a lot to do with that; it was their initial requirement for each specific program. They didn’t leave any room. Really when you net their requirements there wasn’t anything left in the Associate Degree program...that you could cross-specify. And I think those people are going to have to do some rethinking if that’s possible. (Vice President for Instruction, College C)

We feel that we need all of the time for single competency programs...all of our programs do prepare for certification for licensure and they do have to meet those requirements (for accreditation). And to try to incorporate additional competency it may jeopardize that. (Vice President for Instruction, College D)

Mid-level administrators, primarily the chairpersons expressed the view of not hearing anything from the community in addition to concern over how structurally creating a multicompetency program within a very
functional division might be accomplished. Turf and territory were cited as very real concerns by chairperson from both colleges:

I think it is only natural that there should be turf protection and in order for this kind of thing to occur (implementation of multicompetency education), this has to be overcome, so that turfs are widened and boundaries are broken down...I have no idea how all of that might be developed in the future. (Chairperson, College C)

Personally, I feel that we have separate identities ...I personally have my area, the Chairperson of Dental Hygiene has her area, the Chairperson of Radiologic Technology has her area...and in regards to speaking to this at an administrative level, I've never thought about it. Mostly in regards to my mind I don't see it as always feasible in many cases. (Chairperson, College D)

Thus, a prohibitive factor as perceived by these administrators was the very functional structure of the health technology divisions. Their concerns and descriptions of the functional organizational structure of the health divisions coincide with the description of a Defender type of organization. Miles and Snow\(^8\) characterize this type of organization as having a tendency toward a functional structure with extensive division of labor.

Lastly, several administrators from these colleges either directly or indirectly cited the employability of a multicompetent technician as questionable. This concern reiterates the institutional need for a definitive market which already exists and is healthy. The President of College C even indicated that at least three or four hospitals or health care facilities would have to request the need for such a person before the administration of that institution would consider training such an individual. This reflects again the characteristics of a
Defender organization which will only direct products at a limited segment of the market, that which is the healthiest.

In assessing the impact of funding, two questions were asked of the administrators from the colleges. The questions were

2. Describe the internal and external funding mechanisms for the development of new programs at this technical college. (Internal = college provided monies) (External = non-college monies)

a. How did external funding influence the decision to (not to) develop and implement a multicompetency education program at this college? and

b. How did internal funding influence the decision to (not to) develop and implement a multicompetency education program at this college?

Interview results indicate that both internal and external funding played a minimal role as far as program development or lack of program development in these colleges. The findings are summarized in Table 3.

**TABLE 3**

**INFLUENCE OF FUNDING ON DEVELOPMENT OF MULTICOMPETENCY EDUCATION PROGRAMS**

<table>
<thead>
<tr>
<th>Division Name</th>
<th>Influence of Internal Funding</th>
<th>Influence of External Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Minimal, in terms of release time &amp; hiring of part-time faculty.</td>
<td>None</td>
</tr>
<tr>
<td>B</td>
<td>Minimal, in terms of release time and hiring of part-time faculty.</td>
<td>None</td>
</tr>
<tr>
<td>C</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>D</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Both the Dean of Health Technologies and the Vice-President for Academic Affairs at College B cited flexibility in the budget as essential in maneuvering to whom dollars for new program development would be allotted and when these would be allotted. Part-time faculty were hired primarily to release the program developer (chairperson or faculty member) from instructional responsibilities. Thus, this individual could then spend time working on program development.

In colleges C and D, neither internal nor external funding were cited as having any significant impact on why the health technology divisions did not pursue the development of a multicompetency education program. However, one chairperson in College C attributed the lack of investigation on the chairpersons being totally absorbed in their own departments.

...all of us chairpersons have been somewhat thrust into our positions...When I described to you that funding did not allow advance hiring, all of us were in that same boat...the staff quota cannot be hired very soon in advance of when the students enter, so we've been all playing catch-up for years because we didn't have any advance planning time...so what we would have done a year in advance of students being here, we are slowly accomplishing after the fact...we are so totally caught up in our own departments and only now are we beginning to get our heads above water. (Program Chairperson, College C)

Without released time provided for program development, these chairpersons were often writing course outlines and tests during the initial year of the program and thus had little or no time for anything else. Such activity is typical within a Defender type of organization. Human and fiscal resources are utilized as efficiently as possible with little or no resources underemployed.
The organizational factor of administrative support in the development of a multicompetency education program, was examined in the colleges through the following question:

3. Describe the internal college process for new program approval at this technical college.

a. How did the Board of Trustees, the President, the Vice-President for Instruction or Academic Affairs and the Dean of Allied Health affect the decision to (not to) develop and implement a multicompetency education program at this college?

In Colleges A and B, the Dean of Health Technology seemed to play a key role in fostering the acceptance and approval of higher administration, as well as in supporting the developer(s) at a lower level. In College A, the chairperson responsible for developing and implementing the multicompetency program within the health technology division said this about the role of administrative support:

...the Dean was very supportive...I was the initiator and would talk, discuss ideas and thoughts with the Dean...you can even tease him and call him the 'Scout'...he goes ahead and then comes back and tells us whether we should circle or keep on going.

Top and mid-level administrators at College B perceived the Dean of a division as central to the development and implementation of new programs. The following statements from those interviewed at College B substantiate this view.

...right now, the major thrust for this is at the Dean's level. Whether it lives or dies will depend on the Dean...there's no question in my mind about this kind of a program, whether it's a go or no-go will depend upon the leadership or lack of leadership that the Dean shows. (Vice-President for Academic Affairs, College B).

A lot of decisions on those kind of things really lie with the Dean of the Division...I think she planted the idea and
supported suggestions for such a thing. (Assistant Dean for Allied Health, College B)

...but I think the Dean wouldn't have had a major impact had she not been so supportive regarding release time...it would have just died. (Program Director, College B)

...I can only go for the Dean. Actually, she really initiated it...in the sense of bringing in ideas to a particular faculty member and then trying to generate interest in that idea...putting the seed in the faculty member. (Program Director, College B)

According to the administrators at Colleges A and B, the support of the Dean was central to the program development. Other high level administrators, such as the President and the Board of Trustees, did not play a major role in providing administrative support in terms of promotion, information and persuasion.

In Colleges C and D, the administrators reiterated that since no one had even brought forth the idea, due to a lack of stated need within the community, administrative support was a moot issue. However, throughout the interviews in both colleges, the key and most influential members, who could significantly influence the pursuit of a new program idea were readily identified. In College C, the Vice-President for Instruction was identified by both the President and the Dean of Health Technology as the individual to give final approval for the pursuit of an initial program development idea.

In both colleges, the President and Vice-President for Instruction were cited as having the authority to either promote or discourage the pursuit of an idea. In College C, if an idea comes from the bottom-up, a feasibility study is required before approval will be given for
pursuing it. In College D, the Dean of Health Technologies reiterated the importance of top-level administrative approval:

...if anyone of those individuals (members of the Board of Trustees, President or Vice-President for Instruction) has any reservations about the need for such a program, those would be voiced and heard...I would assume that the development could even be halted at that point.

In these colleges, top-level administrative support and approval seems to be critical to new program exploration and development.

In summary, administrative support was important in program development in the Health Technology Divisions of Colleges A and B in terms of the influence of the Dean. This is characteristic of an Analyzer or a Prospector type of organization. In these organizations, decision-making is less centralized. The unit with the closest contact with the environment will be given the freedom to make decisions concerning the appropriate response to that environment.

In Colleges C and D, decision-making is more controlled by higher-level administration. This type of centralized decision making is typical of a Defender organization. Lastly, although administrators in Colleges C and D did not cite administrative support as influential in the lack of development of a multicompetency program, they did cite top-level administrative approval as critical to the pursuit of an idea for program development.

To determine if faculty and chairperson support had any influence on the development of a multicompetency education program, administrators in the colleges were asked the following question:

4. How did the faculty and other chairpersons in the health technologies division influence the decision to (not to) develop and implement a multicompetency education program?
Faculty support was perceived to have no effect on the development of a multicompetency program in either College A or B. Chairperson support was significant to the extent that the chairpersons of those single-discipline programs to be involved in the multicompetency program had to be supportive of the concept in order for program development to proceed. The Dean of Health Technologies in College B articulated this well when saying:

...there was communication with the person in Medical Assisting who had been shepherding Echocardiography along the way and she was supportive of this concept of the Cardiopulmonary, extending the length of the Echocardiography program and merging it with the Respiratory Therapy program. I think if she had been violently opposed to it, it would have been difficult.

In Health Technology Division A, chairperson support again was only significant in terms of support from those who would be intricately involved in developing and implementing the program. Support for the program is still evolving in Division A as the chairperson responsible for the multicompetency program explains:

...that support is still evolving in that they can see how parts of their program might fit into or placed into multicompetency.

The administrators in Colleges C and D interviewed believed that since no one brought up the issue of developing a multicompetency program, faculty and chairperson support had little or no impact upon the decision not to develop that type of program.

Thus, faculty support was not perceived to be an influential factor in either the development or lack of development at any of the
colleges. Chairperson support was perceived to be somewhat influential in Divisions A and B but not in Divisions C and D.

To assess external influence, administrators in the colleges were asked to enumerate the significant external groups which influenced the decision to develop or not to develop a multicompetency education program. The question read as follows:

5. Please enumerate the external groups which significantly influenced the decision to (not to) develop a multicompetency health technologies program. (groups may include local health care industry organizations, other academic institutions, professional groups and organizations, and accrediting bodies).

a. How did each of these groups influence the decision to (not to) develop a multicompetency program at this college?

Two categories of external groups were identified throughout the interviews with administrators from both College A and B. The first includes local health care providers. The administrators in College A identified urgentcare centers and health maintenance organizations as key external health care providers that supported the training of multicompetent technicians. Hospitals were not initially interested, but after much lobbying on the part of the chairperson of the multicompetency program, hospitals, particularly smaller rural ones, voiced an interest in hiring the technicians. Currently, the program chairperson responsible for the development of the multicompetency technician program is assisting a suburban hospital with a cross-training agreement for workers who will hold Health Care Tech I positions at the hospital to be trained in the Health Technology Division of College A.
Administrators in College B cited local health care providers as significantly influencing their decision to explore and develop multicompetency programs in cardiopulmonary technology and geriatrics. Support was highlighted throughout the interviews with statements such as:

I guess...employers, the hospitals...who currently use on some shifts the respiratory personnel to do some of the electrocardiographic duties. (Chairperson, College B)

A progressive alternative to the traditional nursing home influenced the pursuit of the idea simply through their interest in such a practitioner. (Chairperson, College B)

In addition, national level allied health groups were identified by administrators in both College A and B as having a very significant influence on the decision to pursue multicompetency development, particularly in the very early stages. The National Commission on Allied Health Education, the Allied Health Department of the American Medical Association, and the American Society of Allied Health Professions were cited as key national bodies which influenced certain allied health administrators within these colleges to begin seriously considering and investigating the feasibility of developing and implementing a multicompetency education program in their respective allied health divisions.

It is worth noting that the Dean of Health Technologies at College B and the Chairperson of the Allied Health Department at College A are very involved in both the state and national chapters of the American Society for Allied Health Professions, the umbrella organization for the variety of allied health professions. Comparatively, the deans of
the health technology divisions of Colleges C and D did not report any similar types of participation.

Administrators from Colleges C and D could not readily define any external groups which directly impacted upon the decision not to develop and implement a multicompetency education program. Administrators from both colleges at the Health Technology Division level and at the top administrative level speculated that if the community needed multicompetent practitioners, the administrators would have gotten the word primarily from representatives of health care provider organizations or from advisory committee members.

Program advisory committees exist for all allied health technology programs in each college (A,B,C,D). The committees are comprised of local practitioners and clinicians from the surrounding community along with faculty and the program chairperson. The committee advises the program personnel on the types of training and appropriate settings for the training.

The stringent guidelines of current program accreditation and lack of accreditation for the multicompetent technician program were cited by the Vice-President for Instruction at College C and a Chairperson in Health Technologies at College D as external influences that could easily deter the development of a multicompetency education program at their respective colleges.

In an attempt to gather information on how the administrators in these health technology divisions perceived solving their entrepreneurial problems, a series of questions was presented during
the interview. The questions focused primarily on the role of externally defined needs and market information. The questions are as follows:

6. How did externally defined needs by prospective or current employers affect the decision to (not to) develop a multicompetency education program?
   
a. Which of these externally defined needs were perceived needs (by college administrators or personnel)?
   
b. Which of these externally defined needs were documented? What type of documentation exists?
   
c. Is market information (information concerning what the consumers of your products/services want from your institution in regards to the type of allied health practitioners) obtained regularly by the Division?
   
d. How is this information obtained?
   
e. How often is this information obtained?

In the responses gathered during interviews with administrators from College A, externally defined needs effected the decision to implement a multicompetency education program. However, the needs were perceived by administrators within the Health Technology Division and were not formally documented. Trends cited in the literature were the only written, verifiable needs that the health technology administrators cited.

No hard numerical data were evident in the administrative decisions of College B when forging ahead in the exploration and development of a multicompetency program. The statements of both top and mid-level administrators reflect this approach to strategy:

It starts out with a perception here. Eighty-five to 90 percent of the program ideas are the results of people inside perceiving a need that they later go out and document...we do have programs developed where the community beats down our
door and says, "We need this." However, the need for this one was not gotten that way. (Vice President for Academic Affairs, College A)

The only reason it was developed was because we perceived an external need...again it's getting back to the literature that it (multicompetency education program) had been developed in other parts of the nation...We try to keep current at all times on current and future needs in the allied health area. (Dean of Health Technologies, College A)

I couldn't get a grasp on numbers and needs and the like...I went to the Board of Regents and asked if they would accept documentation from the literature ... and they gave me the ok...from the literature, I got descriptions of what was coming. (Chairperson, College A)

The Geriatric program is very much up in the air...right now the need for this program is not externally documented...we perceive that a need does exist...we have now a needs assessment survey that was painfully developed... (Dean of Health Technologies, College B)

We finally got hard numbers. I mean...when we had the idea there were no hard numbers...so, we went out and surveyed people. (Program Director, College B)

In both college health technology divisions, no hard data from the community existed when the administration decided to begin exploring the feasibility of establishing a multicompetency allied health program. The administrators from these college perceived a need and then went out to gather documentation. Thus, in the case of college B, surveys were used at a later stage in program development.

In terms of market information, administrators from both College A and B stated that systematic, formal information concerning what current and prospective employers want was not gathered. However, the administration in both college health technology divisions rely informally on advisory committees, faculty and clinical coordinators
for information concerning graduate employment and to some extent personnel needs. Such information is gathered irregularly and informally and often is done within a single discipline. The Program Chairperson from College A summarized:

That is not done on a regular basis...we all survey our graduates with questions like, "Are you pleased with your job? Are you pleased with your program? Did you get a job"? Yes, but we don’t on a regular basis go to employers and say, "What other needs do you have besides what we’re pumping out?" There is a periodic survey of employers...it doesn’t go into manpower/personnel needs.

The administrators from College B periodically review the results of a hospital council survey. The council surveys hospital personnel administrators concerning types and numbers of manpower they will need. Yearly results are available.

Conclusively, externally defined needs did influence the administrative decision to pursue multicompetency program development; however, these needs were not documented, clearly defined or quantifiable. They were mostly, as one vice-president described them, "hunches" about what would eventually occur down the road within their respective communities. The literature and discourse at national allied health meetings were the source of external influence not local community provider organizations.

Unlike Division A and B, those divisions which did not pursue multicompetency program development, (Divisions C and D) relied on the absence of any documented, defined and articulated need as rationale for not even considering multicompetency program development. To pursue the development of a program of any nature, a specific and
well-defined need must be expressed by the community. Administrators at the top-level of management in both colleges reiterated the importance of the presence of an articulated need by some community representative before consideration and exploration would commence. Community representation included program advisory committee members, clinical agency employees and administrators or members of the college Board of Trustees.

Market information concerning manpower was not gathered regularly through a formal or systematic means by either college. However, administrators at all levels from Colleges C and D believe this type of information is informally gathered on a continuous basis by clinical coordinators, faculty and chairpersons, as well as through advisory committee meetings. Administrators affiliated with health technology from College C cited linkage visitations as very important to the exchange of information concerning manpower needs within the health care service provider segment. Linkage visitations occur when representatives from a local health care organization visit the college and meet with faculty and administrators to discuss needs of both and how they might assist one another in meeting these needs.

Administrators affiliated with health technology in College D utilize the results of a manpower study that is done periodically by a nearby medical school as a source of market information for their service area.

Unlike Divisions A and B, the health technology divisions that are not pursuing multicompetency program development rely heavily on
defined, quantifiable, and clearly articulated needs expressed directly by the community. Yet, like Divisions A and B, they do not have any systematic way of gathering market information on new manpower needs from the organizations that employ their graduates.

In order to determine how the administrators within the health technology divisions attempted to solve the administrative problem, thereby establishing some form of strategy regarding multicompetency education, the following questions were asked of administrators in the colleges:

7. How did the following affect the decision to (not to) develop a multicompetency education program: a) the structure of the division; b) reward system for division performance; c) conflict and coordination mechanisms?

a. Structure of the Health Technologies Division

Administrators in Health Technology Divisions of Colleges A and B, perceived the structure as influential in the decision to explore and develop a multicompetency education program. In addition, the solutions to the administrative problem evidenced through the perceptions of these administrators are similar to those initiated by Prospectors and Analyzers in the research of Miles and Snow.8

In College A, the administrative structure of the Health Technology Division influenced the feasibility and ease in which a multicompetency program could be implemented. Having all essential programs from which the multicompetency program would be developed under two chairpersons did make development much easier, requiring less coordination and participative decision-making. In addition, the relationship between
these two administrators was strong and supportive. They worked together very well.

In Division B, a similar situation was described by those administrators interviewed. The flexibility within the curricular structure allowed changes to be made easily. In addition, one chairperson headed up the area in which most of the changes were made. The program director of ECG area was also very cooperative and supportive, allowing the changes to be made without much resistance and conflict. As stated by the Dean of Health Technology:

The Cardiopulmonary Program was founded in Respiratory Therapy...the major part of the curriculum changes and evolutions are in that one program which has one chairperson...the person responsible for the electrocardiography portion of that was very supportive...it didn't turn out to be a barrier.

Clustering all of the health technology programs together under one Dean was also cited by the administrators as a key structural element that made the development of a multicompetency program feasible. The perceptions of administrators from both colleges reinforce the importance of this structural element.

It is important that you have all the health programs in the same division and that you have more than one... Administratively being organized under one dean, all in the same division, facilitated the development of the program. (Vice-President for Academic Affairs, College A)

The Dean is the boss...directs all health technology programs and in that position is critical in bringing about cooperation and coordination...in other institutions where they have strong department chairs, that makes it more difficult to get those units to work together. (Vice-President for Academic Affairs, College B)

...the close and cooperative nature of the program directors...channelled through the Dean...our system is unique in the respect of not having chairs and
rank...we have program directors who are more coordinators than chairpersons. (Program Director, College B)

Centralization within the structure (both administrative and curricular) of the multicompetency area itself and within the health technologies division seemed to facilitate the development of a multicompetency program in Divisions A and B.

The administration of Colleges C and D did not perceive structure as being influential in the lack of development of a multicompetency education program. Since no one had raised the issue within these colleges or from within the community, the development of such a program was not viewed as critical or important to the college.

b. Reward System for Divisional Performance

Colleges A and B had no formal reward structure that would specifically encourage the development of new programs within the divisions; however, new program development was viewed as critical by top-level administrators in both colleges. New programs were perceived as vital to increasing enrollment and enhancing growth. The Health Technology Divisions in these colleges received support and encouragement to investigate and develop a multicompetency program. Interview data supports this finding.

I think that it’s clear that the College is in a growth posture...And, therefore, in a general way, it is to our advantage in the Health Division to show growth. (Dean of Health Technologies Division, College B)

You do not want to stagnate. You expect growth...I would have much more status with administration if I’m opening a program or two, versus losing one...because growth is what keeps an institute viable. (Dean of Health Technologies Division, College A)
The administrators in Colleges C and D did not perceive any relationship between divisional rewards either formal or informal, and the failure to develop a multicompetency education program. During the interviews, these individuals reiterated that community need was the most important factor in initiating a new program.

c. Conflict Resolution and Coordination Mechanisms

The Health Technologies Divisions in Colleges A and B employed a variety of coordination and conflict resolution mechanisms. The administrators in both colleges believed these mechanisms essential to the successful implementation of a multicompetency education program. Several mechanisms discussed during the interviews include:

1) the structure of the Health Technology Division in College A, with one chairperson over several of the core programs serving as a base for the multicompetency program;

2) the abundance of manpower in the Health Technology Division of College A made it possible that not all program faculty from the Division be involved in the development and implementation of the multicompetency program;

3) frequent discussion and early involvement of key chairpersons in both Divisions of Colleges A and B reduced conflict significantly;

4) the physical proximity of the two key chairpersons responsible for the development of a multicompetency program at College A provided a very significant informal coordination and conflict resolution mode;

5) the Assistant Dean of Health Technologies in College B functioned as an integrator in the development of the multicompetency program.

The administrators in and affiliated with the Health Technology Divisions of Colleges C and D perceived the need for conflict resolution and coordination mechanisms as inconsequential to the lack
of development of a multicompetency education program. Since the need for such a program had not been voiced by the community, the majority of the administrators interviewed felt that these factors had no bearing whatsoever on the lack of development. One chairperson in Division C believed that the mechanisms would be vital to the development of a multicompetency program when and if it was ever initiated within the Division.

8. How did the a) current types of programs, b) facilities, and c) instructional personnel influence the decision to (not to) develop a multicompetency education program?

a. Current Programs

In Colleges A and B, administrators perceived that having core programs and flexible curricula from which a multicompetency education program could be formulated definitely enhanced the investigation and development of that program. Selected responses from the interviews support this notion.

I think the idea of 'let's expand on this' had an impact...what areas do our current technologies touch on, and are there outshoots of those (that we can use)...(Program Director, College B)

I think we have a lot of those components...all of these other kinds of competencies and we're just not packaging them properly...I feel that's where a lot of the potential lies. (Vice-President for Academic Affairs, College B)

We had some (programs) available to pick from...three of the options were already present, so that's available in the curriculum. (Chairperson, College A)

Determinative...the variety of programs and we have a number of them...we have the competency training and the base is there...(Vice-President for Academic Affairs, College A)
b. Facilities

The administrators in Colleges A and B perceived that having facilities available for additional use influenced the development of a multicompetency education program. None of those interviewed from these colleges foresaw a great need for additional expenditures to expand facilities or purchase new equipment. Currently used clinical facilities were also perceived to be available. According to the Dean of Health Technologies in College B, additional clinical facilities would be needed if the geriatric multicompetency program was initiated.

c. Personnel

A significant number of additional personnel was not perceived by the administrators in Divisions A and B to be requisite for the development and implementation of a multicompetency education program. The Dean of Health Technologies at College B related the possible need for one additional faculty with expertise in echocardiography. This was very tentative and would depend on whether or not the current chairperson in Respiratory Therapy would receive additional training in echocardiography.

Top-level administrators in College A viewed the implementation of a multicompetency education program as an opportunity to better utilize current faculty in a number of other health technology programs. Several administrators affiliated with the Health Technology Division in College B viewed the implementation of a multicompetency education program as a mechanism for providing chairpersons and faculty with an opportunity to expand their professional expertise. These
possibilities were cited as very positive and influential in the thrust to develop a multicompentency education program.

The administrators affiliated with and in the Health Technology Divisions of Colleges C and D perceived current programs, facilities, and personnel to have no influence on the lack of development of a multicompentency education program at those colleges. Again, the lack of community need or the fact that no one had ever initiated a discussion on developing a multicompentency education program were cited as the foremost influential factors for why investigation and development had not been initiated at these institutions. The President of College C did perceive that the previously listed factors would not be detrimental to the development of a multicompentency education program if such development would be initiated.

9. Over the past 5-10 years, has the Health Technologies Division grown more through the extension of current or related products or through diversifying into new product areas (product is defined as an employable and competent graduate)?

Administrators from all colleges attributed the majority of growth to the extension of current or related products. The extension occurred primarily through an increase in enrollments in present health technology programs or by adding new traditional health technology programs.

The administrators in Colleges A and B perceived that over the past one to three years, growth was also occurring through diversification into new product areas through the implementation of multicompentency education programs. This view is best summarized in a statement from the interview with the Vice-President for Education at College A.
The local economy can only accept just so many (traditional allied health personnel), what you can reasonably train and expect to be employed...So the only way you can really expand and see growth in those allied areas is to bring in new programs, programs which are not currently being offered and programs which are not currently being offered by other institutions.

The Dean of Health Technologies at College D perceived the Division as broadening its program development into diversified product areas through the implementation of a surgical technology program.
Chapter Five is organized into two sections. The first section addresses the analysis of the first three research questions and deals primarily with the key organizational and environmental variables that influenced the development or lack of development of a multicompetency education program at the college sample used in this study.

The second section addresses the analysis of findings associated with the strategic typology developed by Miles and Snow and incorporated into this research. Findings were analyzed in terms of which strategic types were represented in the sample, which types were associated with the development of a multicompetency education program, which types were associated with the lack of development of a multicompetency education program, and whether the Miles and Snow conceptual framework was useful in determining at least in part why certain two-year technical colleges developed a multicompetency program, and why other two-year technical colleges did not develop the program.

The analysis will be organized according to the research questions (found in Chapter 1, page 10) which served as a guide to the research.
Key Factors Associated with the Development/Lack of Development of Multicompetency Educational Programs

Question one addresses why a multicompetency program was developed or not developed at the colleges, based on the perceptions of the administrators interviewed at these colleges. Questions two and three address administrative perceptions about key organizational and environmental variables associated with the development or lack of development of a multicompetency education program in the colleges selected in the sample.

1. Why was a multicompetency training program developed in two colleges and not in the other two colleges with similar characteristics?

The environmental approach of the administrative leadership was clearly the most distinctive factor affecting the development of a multicompetency program in two of the four colleges in the sample. In the two colleges which developed the multicompetency education program, the administration viewed the external environment as an interactive arena in which successful engagement and manipulation could result in growth and viability for their respective institutions. Similar to what Weick\(^19\) has described, these colleges influenced their environments by reaching out to manipulate particular facets to their advantage.

The administrative leadership in the colleges which had not developed a multicompetency program clearly viewed and approached their respective environments quite differently. The administrators of these
colleges waited for the environment to indicate to them what was needed in terms of health provider manpower and subsequent program development.

Administrators in all four technical colleges were aware of the changes and turbulence in the health care provider environment. Yet, in two of these colleges, the administration took different actions based on their perceptions of the environment.

2. What influence did the following factors have in the development of a multicompetency training program at those colleges which initiated the development of such a program?
   a. funding availability (internal and external)
   b. administrative support
   c. faculty support
   d. external influence (local industry, academic institutions, professional and accrediting organizations).

An analysis of interview responses support the notion that these factors had relatively little or no influence on the decision to develop a multicompetency education program. External funding had no impact according to the administrators from both colleges that developed the program. With the funding base of two year technical colleges coming primarily from state reimbursement and tuition, it is understandable why external funding would be perceived as having no influence.
Internal funding was only minimally influential. Flexibility in the budget and decentralization of decision-making concerning budget allocations were directly linked to the influence of internal funding. Providing release time from teaching to the individual responsible for the development of a multicompetency education program to actually do program development was achieved by using funds to hire part-time faculty to assume the teaching responsibility of the developer. The combination of the availability of internal funds and the decision power to allocate the funds facilitated the development of a multicompetency program.

Administrative support, as defined for the purposes of this research study, was any action by top or mid-level administrators associated with the development of a multicompetency education program that positively influenced the development of the program. The action may be informative, persuasive, or promotional. In the colleges that did develop the program, administrative support emerged as influence from the dean of the health technologies division. Influence consisted mostly of supportive consultation concerning ideas on how to promote the program to higher administration. In addition, the dean played an informative role concerning resources for development of the program and in establishing close, cooperative relationships among the chairpersons.

Faculty support was defined as any action on the part of the faculty either singularly or as a group that positively influenced the development and or implementation of a multicompetency training
program. These actions could also be informative, persuasive or promotional.

Faculty support was not influential in the decision to pursue multicompetency program development in the colleges that did develop the program. Organizational slack coupled with the non-collegial nature and more centralized authority associated with a two-year college contributed to a lessened need for faculty support in the colleges developing a multicompetency education program.

External influence consists of one or more outside forces that impact upon and precipitate some type of organizational change. Time was also central to the type of external influence in the cases of those colleges which developed multicompetency education programs. Early external influential forces consisted of messages from national educational and accreditation organizations concerning future trends in health care provision and education. For these to affect the administrative decisions, the posture of administration toward the environment had to be aggressive and interactive. Administrators from both colleges that implemented the multicompetency education programs were strongly affiliated with national allied health organizations and regularly attended national meetings.

More recent influence came from the local health care providers (hospitals, urgentcare centers, health maintenance organizations). It is important to note that in both cases, these provider organizations were not the initial prompters of multicompetency education development in the colleges that pursued program development. The college administrations decided to pursue multicompetency education development
more or less on their own. Support from these institutions came well after agreement to pursue the idea had been reached internally within the health technology divisions.

3. What influence did the following factors have in the lack of development of a multicompetency training program at those colleges which did not initiate such a program?

   a. funding availability (internal and external)
   b. administrative support
   c. faculty support
   d. external influence (local industry, academic institutions, professional and accrediting organizations).

The availability of funding, administrative support, and faculty support did not impact upon the decision not to explore the development and implementation of a multicompetency education program at Colleges C and D. External influence had an indirect impact upon the thrust not to consider training an allied health generalist. Administrators in the health technology divisions at these colleges would consider development of a program when an external health provider specifically requested that a certain type of practitioner be trained. In College C, more that one provider institution had to affirm that once this type of practitioner was trained, the institution would definitely hire them.

In other words, administrators in Colleges C and D trained personnel for a guaranteed market. The philosophy behind initiating new programs was not a risktaking one. The health technologies
divisions in Colleges C and D did not employ entrepreneurial strategies when considering the development of new programs.

In addition, the structure of the allied health divisions within Colleges C and D were well defined as far as program boundaries and specific disciplines were concerned. Such programmatic definition would not be conducive to the overlap and curricular flexibility needed to create the cross-training which is characteristic of multicompetency programs. Several chairpersons alluded to this during their interviews.

There seems to be a lot of turf protection in most allied health fields...for this thing to occur, turfs would have to be widened-the boundaries broken down...I have no idea how that all might be worked out...we would have a lot to change. (Program Chairperson, College C)

It's something quite frankly we've never discussed. I personally have my area and the Chairperson of Surgical Technology has her area. The Chairperson of Dental Hygiene has her area...Most probably in my mind, I don't see it always feasible in many cases. (Program Chairperson, College D)

Lastly, as a group, the top and mid-level administrators from both Colleges C and D perceived issues such as accreditation of programs and certification of the multicompetent technician as obstacles which would prevent or indefinitely delay the development of a multicompetency program. This administrative philosophy concerning problems associated with allied health generalist training differed significantly from the perceptions of administrators in Colleges A and B concerning issues in training multicompetent practitioners. Administrators in the health technologies divisions in Colleges A and B perceived issues as problems which would have to be addressed in the course of development rather
than problems that would render the development of a multicompetency program untenable.

Strategic Type Representation

This section addresses the analysis of findings associated with the strategic typology developed by Miles and Snow. Research questions four through seven address the representation of types in the sample, those associated with the development and lack of development of a multicompetent education program, as well as the usefulness of the typology in this type of research.

4. Which strategic types are represented in the sample of four two-year technical colleges?

This question can be answered only in the context of the responses provided by the expert panel, the researcher, and the college administrators. When analyzing the categorization provided by the researcher and panel members, each strategic type can be found in the categorization provided by one panel member. However, when looking across the colleges for representation of all four types (Table 1, page 45), a dichotomous representation became evident. Instead of four types being represented, two hybrid types were found. Based on the categorizations by the panel and the researcher, a more representative type for Colleges A and B would be a Prospector/Analyzer and for Colleges C and D a Defender/Reactor.

The lack of agreement among panel members and researcher as far as precise differentiation between an Analyzer and a Prospector, as well as a Defender and Reactor could be due to the difficulty in
operationalizing the descriptive characteristics provided by Miles and Snow. In addition, conversations with judges after the typing produced variations on what each judge used to assist him in the typing. Judges were influenced by their own professional biases and interests, irrespective of external criteria used to control the effects of such biases.

The categorization provided by the internal administrators for their respective institutions resulted in little agreement concerning the strategy for each college (Table 2, page 47). In each college, categorizations by the administrators yielded results in which three of the four strategic types were represented. Thus, the lack of agreement concerning the strategic type most representative of a particular institution was greatest in self-typing. This is very consistent with problems noted by Snow and Hrebiniak and by Burgeois when these researchers asked managers to type their respective organizations. Enough variance existed among managerial perceptions to indicate that the use of self-typing could be problematic, particularly when attempting to use the results in making an inference about the strategic type of an organization.

In addition to these studies, Miles and Snow found that hospital administrators were reluctant to type their own hospitals. The administrators felt that too much diversity and complexity existed to reduce the organization to one, single type. When completing the Questionnaire for Strategy Assessment, several administrators in this study commented on the difficulty of selecting one representative type. Many mulled over the questionnaire for five to ten minutes or
more and said that a combination of several descriptors from each type would be more appropriate in accurately describing how they perceived the Division. Thus, the methodological difficulties associated with self-typing that were experienced by other researchers using the Miles and Snow conceptual model were also experienced by this researcher and subjects who self-typed their respective organizations.

Variance in self-typing can also be due to perceptual bias within the subject who types the organization. Sources of bias within an individual administrator could easily be due to longevity in the organization, level within the administrative hierarchy, and departmental association.

The longer an individual stays within an organization, the greater his/her understanding of that organization, goals and strategic position as far as dealing with the external environment. The range of tenure of each of the administrators within each college varied from one to twenty-one years. Such variance in tenure would undoubtedly produce some variation in perceptions of the administrators concerning the strategic philosophy of the health technologies division.

Dearborn and Simon studied selective perception among executives in a business firm and found that departmental affiliation significantly influences the perception of a given situation by the executive. These researchers concluded from their study that an executive will perceive those aspects of a situation that related specifically to the activities and goals of his/her department. Thus, it is possible that the administrators in each college perceive the strategic position of the institution based on their departmental or
divisional affiliation. The administrators in planning and the individual allied health disciplines would be likely to see strategy from a perspective associated with their particular affiliation.

Lawrence and Lorsch provide support for the notion that departmental affiliation can impact perception. In their study of differentiation and integration, these researchers proposed that the members of a subgroup within an organization will become primarily concerned with the goals of coping with their particular subenvironment. Such concerns will definitely impact upon member perception regarding the strategic position of their organization.

From their research on top-level managers perceptions of strategy, Snow and Hrebinjak and Hambrick contend that managers at the top levels of an organization are most likely the ones who determine what the strategy of their organization will be. Thus, these administrators are the ones who will most likely have the best understanding of the strategy of their organization. In this study, administrative position within the college and division hierarchy could have definitely contributed to the disparity in self-typing that existed among all administrators who categorized their respective college.

5. Is a particular strategic type associated with the presence of either a planned or implemented multicompetency educational program?

The presence of a multicompetency program was definitely associated with the Analyzer and Prospector strategic types. This conclusion was drawn using the categorizations provided by the researcher and expert
panel and not the categorizations provided by the college administrators.

Both Colleges A and B were classified by the researcher and panel members as either a Prospector or an Analyzer. Interview data support the categorization, since administrators offered statements and examples of decisions that parallel the descriptive characteristics of a Prospector and an Analyzer as defined by Miles and Snow. The categorizations did not produce a clear distinction between an Analyzer and Prospector for either college health technology division. A singular category encompassing both sets of characteristics may be more appropriate, or better refinement of the characteristics might enable an external rater to categorize distinctly an organization.

6. Is a particular strategic type associated with the absence of either a planned or implemented multicompetency training program?

The absence of a multicompetency program was definitely associated with the Defender and Reactor strategic types. Colleges C and D were classified primarily as Defenders, although one judge classified College C as a Reactor. A third judge did not classify College D. These conclusions were drawn using the categorizations provided by the researcher and expert panel and not the categorizations provided by the college administrators.

7. Is the strategic type framework useful in explaining in part why certain allied health divisions within public two-year technical colleges have or have not developed and/or implemented multicompetency educational programs?
The findings and analysis provide support for using the strategic type conceptual model in partially explaining why two technical college allied health divisions developed multicompetency education programs and why two others did not. When applied to a divisional setting within a two-year technical college, categorizations by an expert panel and internal administrators did not yield a representation of the four, separate strategic types.

In addition, two hybrid types may be more useful for research involving similar types of institutions than the four distinct types developed by Miles and Snow. The most relevant distinction concerning strategy and multicompetency program development was that Colleges A and B, which developed the program, were more likely to have a combination of both Analyzer and Prospector characteristics.

The strategies of both colleges exemplified the approach of a Prospector and an Analyzer. The importance of growth to these institutions was reiterated by all of the administrators. Each college maintained a core of successful, traditional allied health programs yet began to search for new markets.

Flexibility in curriculum and use of personnel and facilities was important to new program development. In College B, decision-making concerning new program development was decentralized, while in College A, decision-making concerning budget allocations for new program development was decentralized, while in College A, decision-making concerning budget allocations for new program development was highly decentralized. These characteristics have been typically associated with Prospector and Analyzer types of organizations.
Colleges C and D which did not develop the program were reflective of mostly Defender characteristics and some Reactor characteristics. Limited environmental scanning, along with a tendency to ignore developments outside of a chosen domain were evident in interviews with administrators from Colleges C and D. Since the issue of developing a multicompetency education program had not been brought up by either internal personnel or external community representatives, program development in that area was not considered.

Program development was based on defined community needs. Employment of graduates was very important in this type of decision reflecting an interest in a secure and stable domain. Such characteristics are hallmarks of a Defender type of organization and clearly reflect the strategy concerning new program development employed by Colleges C and D.

The consideration of time in the program development process may also be useful in conclusively distinguishing between an Analyzer and Prospector as well as between a Reactor and Defender. Miles and Snow\(^8\) in their study of several types of firms found that a major difference between the Prospector and the Analyzer type of organization was the time taken to initiate internal changes based on an assessment of their respective environments.

A Prospector type of organization would be the first to initiate a new venture with the Analyzer type initiating a similar venture sometime later. The Reactor would then follow, with the Defender holding firm in the pursuit of the status quo until forced to follow
along with the other types. Usually, this last ditch effort comes about when the organization begins to experience decline and the viability of the organization were threatened. Longitudinally studying Colleges A and B or C and D could result in findings that would clearly differentiate the colleges into four distinct strategic types.
CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to investigate why certain two-year technical colleges developed multicompetency education programs and why others did not. The strategic framework developed by Miles and Snow was used to partially explain why development occurred in some and not in others. In addition, three major internal organizational variables (funding availability, administrative support and faculty support) and one major external environmental variable (external influence) were explored to determine how these might have influenced the development or lack of development of a multicompetency education program.

Data were gathered from 18 college administrators from four two-year technical college allied health divisions in the State of Ohio. A questionnaire and standardized open-ended interviews were used. Data analyses produced several significant findings. First of all, the posture of the college administration toward the organizational environment did influence the development or lack of development of the program. In Colleges A and B (those that developed the program), the administration perceived the environment as an interactive arena in which elements could be manipulated to the advantage of their organization. Thus, the administrators were more venturesome and risk-taking in developing new programs. In Colleges C and D (those that did not develop the program), the administration
waited for the environment to "tell them" what was important and necessary in terms of new program development.

Secondly, funding availability, administrative support and faculty support were perceived as having no influence in the development or lack of development of a multicompetency education program. External influence was perceived to be minimally influential. Lastly, the strategic types associated with the development of the program were the Analyzer and the Prospector. The strategic types associated with the lack of development of the program were the Defender and Reactor.

Conclusions

The following conclusions, organized around the research questions, are drawn from the findings in Chapter Four and the analysis presented in Chapter Five.

1. There are several reasons why the technical college allied health divisions did or did not develop multicompetency education programs. These include:

   a. The college divisions that did develop the program embraced a philosophy of program development that stressed not only meeting local community needs but that also encouraged an aggressive marketing approach to increase enrollments. This growth posture clearly reinforced risk-taking in the form of innovative program exploration and development.

   b. The posture toward the college environment by the administrators in the colleges and health technology divisions that did develop a multicompetency program was aggressive and influential as opposed to the posture of the administrators in the colleges and health technology divisions that did not develop the program. These administrators waited for the environment to "tell them" what was needed.
c. Similarly, the posture of the college administration within those colleges that did not develop the program was very conservative as far as risk-taking in new program development ventures. Guaranteed employment was almost prerequisite to new program development.

d. The dean of the health technologies divisions in those colleges which did develop a multicompetency program had a central role in keeping abreast of global health care provision changes and the subsequent need to induce change in health professions education. In addition, the dean was very facilitative and supportive to the exploration and development of a multicompetency program.

e. The dean and chairperson to which the multicompetency program development was attributed in the colleges that developed the program were very involved in the state and national chapters of the American Society for Allied Health Professions. This Society along with the American Hospital Association were the greatest proponents of multicompetency development in the allied health professions.

f. The decentralized decision-making within the health technologies divisions of Colleges A and B (developed the multicompetency program) coupled with the encouragement from top-level administrators to take risks and to "try it" differed from the type of decision-making and "this must be a sure thing" attitude expressed by the administrators in Colleges C and D (did not develop a multicompetency program).

g. The administrative leadership within Colleges A and B had a futuristic and global view of their role in health professions education despite the mission of community responsiveness in terms of program development. These administrators viewed the health care sector in a broad and comprehensive manner looking far beyond what was happening in their own backyards.

2. Funding availability, administrative support, and faculty support were not perceived to be influential in the
decision to pursue the development of a multicompetency program at Colleges A and B. External influence in the form of information concerning the future use of allied health personnel within the provider sector was perceived by administrators in Colleges A and B to be significantly influential in the decision to pursue multicompetency program development.

3. Funding availability, administrative support, and faculty support were not perceived to be influential in the decision not to pursue multicompetency program development at Colleges C and D. External influence was perceived to be important only in the sense that if a health service provider organization did not specify and articulate a need for a certain type of health manpower, the development of an educational program to prepare that type of manpower was not pursued. Well-defined and clearly articulated community needs were essential to the initiation of new program initiation and development at Colleges C and D.

4. The Analyzer and Prospector strategic types were associated with the development of a multicompetency program at Colleges A and B, while the Defender and Reactor strategic types were associated with the lack of development of a multicompetency program at Colleges C and D.
5. The strategic framework is useful to a limited extent in explaining why two colleges developed a multicompetency program, and why two other colleges with similar characteristics did not. Based on the interview data obtained from the administrators and the judgement of expert, external panelists, the allied health divisions of Colleges A and B do exhibit a large percentage of the characteristics typically associated with a Prospector or an Analyzer type of organization. Similarly, based on the interview data obtained from the administrators and the judgements of expert, external panelists, the allied health divisions of Colleges C and D do exhibit a large percentage of the characteristics typically associated with a Defender type of organization and some associated with the Reactor type.

Recommendations for Future Research

Based on the data analysis and the conclusions, further research is warranted. The degree of agreement among outside judges and the researcher did not support the existence of four distinct strategic types within the sample. Colleges A and B seemed to exhibit a combination of characteristics associated with both the Analyzer and Prospector types of organizations. Further research is needed to determine if these types are radically different. Possibly a hybrid type would more accurately reflect a division or an organization. This
needs to be investigated using more types of organizations and the divisions within them.

An alternate type of approach to investigating this problem would be to investigate more specifically each type and to operationalize and develop more exact definitions of each strategic type. Quantifiable measures could then be developed by which a more accurate characterization of the organization could be made. This would increase the degree of agreement among those providing the characterizations.

The sample used in the research was small. The focus of future research should include a larger sample of two-year colleges from the State of Ohio as well as other states. Other types of institutions, such as universities and colleges within universities should be included in future studies.

In addition to broadening the number and types of institutions, the product range needs to be broadened. In terms of two-year technical colleges, research using other types of divisions, such as engineering and business technology. An example of the typology fitting such divisions could be hypothesized concerning robotics program development in engineering technology. One would expect Prospector and Analyzer engineering divisions to be developing innovative programs that reflect futuristic trends in these respective technologies. Additional research could also focus on whether the typological representation holds true across divisions in a technical college. For example, a technical college might contain a milieu of types, engineering and
business divisions characterized as Prospectors, while a transfer or health division characterized as a Defender.

This study did not address outcomes in terms of organizational benefit and effectiveness. Further investigation needs to be conducted on whether or not being a Defender or a Prospector is particularly beneficial to the college and if so, in what ways is beneficial to the organization.

Recommendations for Practice

Although the majority of recommendations for future research do have theory and methodology as their focus, several can be made in terms of administrative practice within a two-year technical college allied health division. Administrators within two-year college health technology divisions need to be aware of the overall strategic posture of their respective institution. Not every health technology division will be able to pursue the development of a multicompetency education program.

Allied health administrators need to be aware of global health care service and education developments that could indicate the need for a different type of organizational response. Scanning activities need to be expanded beyond narrow disciplines. This should be an integral responsibility of the dean of the division.

Lastly, administrators need to be internally monitoring ways to increase flexibility within their divisions as far as curriculum development and human resources utilization are concerned.
END NOTES


APPENDIX A

Strategic Type Identification Questionnaire

Used with College Administrators
Questionnaire for Strategy Assessment by Technical College Administrators*

Below are descriptions of how four different two-year technical college allied health divisions operate in order to survive and prosper. While none of the allied health areas described may be exactly like your own, please look for similarities. Consider the allied health area as a whole, and note that none of the areas/divisions listed below is inherently "good" or "bad."

Allied Health Division A maintains a secure "niche" within health professions education by offering a relatively stable set of curricula/programs. It serves its constituents by offering relatively high quality superior student services, and so forth. Generally, this grouping of allied health programs (division, department) is not at the forefront of new program or market development in health professions education. It tends to ignore changes that have no direct impact on current areas of operation and concentrates instead on doing the best job possible in its existing arena.

Allied Health Division B periodically reshapes its set of curricula/programs. It values being "first in" in new areas of program or market activity, even if not all of these efforts ultimately prove to be highly successful. Division B responds rapidly to early signals concerning areas of opportunity and invests considerable resources in new program/market innovation.

Allied Health Division C maintains a stable base of offerings while at the same time moving quickly to meet carefully selected, promising new market developments. The Division is seldom "first in" within new programs/curricula. However, by carefully monitoring the actions of divisions like Division B (described directly above), Division C can be "second in" with a more cost-efficient or well-conceived program.

Allied Health Division D is difficult to characterize in terms of where it places its emphasis. It doesn't place unswerving emphasis on its stable core offerings the way Division A does. Nor is it as aggressive as Division B or C in moving into new program/market areas. Division D waits for considerable evidence that a new offering will be a wise move, or waits until forced by external pressures to make the move.

Which allied health division is most similar to yours as it now operates? A B C D

Which allied health division is most similar to yours as it operated two years ago? A B C D

* This instrument was developed by Donald Hambrick, Ph.D. for use with private college executives in typing their colleges.
APPENDIX B

Interview Guide
INTERVIEW GUIDE

NAME________________________________________ DATE__________________________

COLLEGE_____________________________________

Introduction and Definition of Multicompetency Training

The purpose of this study is to investigate why some two-year technical colleges in the State of Ohio are developing multicompetency training programs in allied health, and why others are not developing this type of educational program. The investigation will include the administration of a questionnaire and an interview.

A multicompetency educational program in allied health is one which trains allied health practitioners who possess multiple competencies inclusive of several allied health disciplines.

1. Why has (hasn't) a multicompetency educational program been developed and implemented at this technical college?

2. Describe the internal and external funding mechanisms for the development of new programs at this technical college.
   (Internal = college provided monies)
   (External = non-college monies)
   a. How did external funding influence the decision to (not to) develop and implement a multicompetency program?
   b. How did internal funding influence the decision to (not to) develop and implement a multicompetency program at this technical college?

3. Describe the internal college process for new program approval at this technical college.
   a. How did the Board of Trustees, President, Vice President for Instruction, Dean of Allied Health affect the decision to (not to) develop and implement the multicompetency program?

4. How did the faculty and other chairpersons in the Health Technologies Division influence the decision to (not to) develop and implement a multicompetency education program?
5. Please enumerate the external groups which significantly influenced the decision to develop a multi-competency health technologies program (groups may include local health care industry organizations, other academic institutions, professional groups and organizations, and accrediting bodies).
   a. How did each of these groups influence the decision to (not to) develop a multi-competency program at this college?

6. How did externally defined needs by prospective or current employees affect the decision to (not to) develop a multi-competency program?
   a. Which of these externally defined needs were perceived needs (by college administrators or personnel)?
   b. Which of these externally defined needs were documented? What type of documentation exists?
   c. Is market information (information concerning what the consumers of your products/services want from your institution) concerning the need for allied practitioners in your service area obtained by the division?
   d. How is this information obtained?
   e. How often is this information obtained?

7. How did the following affect the decision to (not to develop a multi-competency education program: a) the structure of the division; reward system for division performance; c) conflict and coordination mechanisms?

8. How did the current types of programs, facilities, and instructional personnel influence the decision to (not to) develop a multi-competency education program?

9. Over the past 5-10 years, has the Health Technologies Division grown more through the extension of current or related products or through diversifying into new product areas (product is defined as an employable and competent graduate)?

   **CURRENT OR RELATED PRODUCTS:** Expanding numbers in established allied health programs or implementing new traditional allied health programs.

   **DIVERSIFYING INTO NEW PRODUCT AREA:** Developing and adding non-traditional allied health offerings including multi-competency.
APPENDIX C

Letter of Introduction

to Deans of Health Technology Divisions
August 20, 1985

Dear Dean _________:

We appreciate your personal participation in the study of factors that are associated with the development of multicompetency allied health programs. This study is designed to provide insight and understanding of why multicompetency allied health education programs are being developed by certain two-year technical colleges in the State of Ohio, and why others are not pursuing the development of such programs. Based on the discussion we had last week, I will be contacting members of your institution within the next few days to begin scheduling interviews with them.

All responses from institutional personnel will be kept strictly confidential and reported on an aggregate basis. In addition to the interviews of approximately one hour, data will be collected through the administration of a questionnaire. Completion should take approximately 10 minutes.

Your participation is most appreciated. Thank you in advance for your time and consideration.

Sincerely,

Ellen M. Quintilian
Ph.D. Candidate
APPENDIX D

Letter of Introduction to Expert Panel Members
January 20, 1986

Dear Dr. ____________:

Your participation in my doctoral research as an expert panel member is most appreciated. Enclosed you will find the following:

* Instructions for review of the materials

* A set of descriptive characteristics for each strategy contained in the Miles and Snow conceptual model

* Four sets of interview responses; one from each of the technical college health technology divisions.

Your participation as a panel member will involve reviewing these materials. You will then be asked to make a decision concerning the adaptation strategy being used by each college health technology division given the data collected through interviews with several administrators within each division.

Please read through the instructions carefully and do not hesitate to contact me if you should have questions. My phone number is included in the instructions. Thank you once again for your cooperation and assistance with this study.

Sincerely yours,

Ellen M. Quintilian
Ph.D. Candidate
APPENDIX E

Instructions to Expert Panel Members
INSTRUCTIONS

Please read the following instructions carefully before reviewing the materials in this packet.

Packet Contents

In addition to this set of instructions, you will find two distinct sets of materials. The first is a set of descriptive characteristics of each of the four types of organizational adaptation developed by Miles and Snow from their research. In addition, you will find a set of responses from four technical college allied health divisions. The responses are data gathered through interviews of administrators from the allied health divisions.

Instructions

1. Please read the descriptive characteristics for the four types of organizational adaptation responses carefully.

2. After reviewing the characteristics, proceed to read each college division’s responses to the interview questions. Review one college at a time. My questions are in upper case type, with the responses following in lower case type. The respondent administrator from that institution is identified at the end of each response.

3. Using the description of the organizational types, make a judgement about the type which most closely describes that college given the responses to the interview questions.

4. Indicate your choice on the strategic type identification questionnaire attached at the end of each set of data for each college (the last page of each data set).

5. Please include any comments about your choice on that form (space is provided).

6. After completing the four strategic type identification questionnaires, place them in the self-addressed, stamped envelope and return them to me. It is important that I receive all four questionnaires NO LATER THAN February 1, 1986.

7. If you have any questions, please do not hesitate to call me collect at (513) 237-5222.

Your time and cooperation in this research is most appreciated!
PROSPECTOR CHARACTERISTICS

1. Enacts a dynamic environment.

2. Prime capability is finding and exploiting new product and market opportunities.

3. Has a reputation as an innovator; this is as important as high profitability.

4. Its domain is broad and continuous; growth results from location of new domains and markets. Thus, this organization is a domain finder.

5. Systematically adds new products or markets with retrenchment in other parts of the domain.

6. Develops the capacity to monitor a wide range of environmental conditions, trends and events by investing heavily in individuals or groups that scan the environment for potential opportunities.

7. Uses change as the major tool to gain an edge over competitors. (Prospectors are the "creators of change" in their respective industries. Competitors are faced with increasing uncertainty in their own environments due to these newly opened markets of prospectors.)

8. Entrepreneurial activities always have primacy; the prospector uses these to manipulate the competitive arena in its favor.

9. Appropriate technologies are not selected or developed until late in the process of product development.

10. Creates multiple, prototypical technologies which have a low degree of routinization.

11. Facilitates rather than controls organizational operations. That is the prospector deploys and coordinates resources among decentralized units and projects rather than using centralized control.
12. Evidences flexibility throughout solutions to three types of problems; the organization is technologically flexible to respond to the demands of tomorrow's world.

13. Uses complex coordination and control mechanisms.

14. Penetrates deeper into current markets; at the same time creates new markets.

15. Form relatively nonpermanent groups whose function is to develop a particular product. Has a less extensive division of labor and only a low degree of structural formalization.
APPENDIX G

Analyzer Characteristics
ANALYZER CHARACTERISTICS

1. Attempts to minimize risk while maximizing the opportunity for profit.

2. Balance describes the adaptation approach of the organization.

3. Major objective is to locate and exploit new product and market opportunities while simultaneously maintaining a firm core of traditional products and customers.

4. Moves toward new products only after their viability has been tested.

5. Imitates products developed by prospector organizations.

6. Growth occurs through market penetration as well as product and market development.

7. Partitions production activities to form a dual technical core with a stable component and a flexible one.

8. The administrative problem is solved through some form of matrix organizational structure. Uses proper differentiation of structure and processes to achieve balance between stable and dynamic areas of operation.

9. Uses complex and expensive coordination mechanisms.

10. Performance appraisal is based on both effectiveness and efficiency.

11. Uses market penetration and product development simultaneously.

12. Faces a hybrid domain that is both shifting and stable.

13. Moderately centralized control system with vertical and horizontal feedback loops.
APPENDIX H

Defender Characteristics
DEFENDER CHARACTERISTICS

1. Faces a narrow and stable domain. Typically directs products or services to only a limited segment of the total potential market. Segment chosen is the healthiest.

2. Aggressively protects the domain from competitors by maintaining prominence in the chosen market (through competitive pricing and excellent customer service).

3. Tendency to ignore developments outside of the chosen domain; limited environmental scanning (usually only performed by marketing).

4. Growth is usually cautious and incremental; occurs through deeper penetration into current markets.

5. Limited product development; closely related to current goods or services.

6. Technological focus is on efficiency or how to produce and distribute goods at maximum efficiency (stable market absorbs output on a continuous, high-volume basis).

7. Appears "lean and hungry" since few human, financial, and physical resources are underemployed.

8. Employs a single core technology.


10. Tendency toward functional structure with extensive division of labor and high degree of formalization.

11. Management must have ability to control all organizational operations centrally; long-looped vertical information systems employed.
12. Tendency toward simple coordination and conflict resolution through hierarchical channels.

13. Financial and production experts are most powerful members of the dominant coalition; their tenure is lengthy and promotion comes from within. More advantageous for the dominant coalition to know the strengths of their institution rather than the trends of their industry.
1. Pattern of adjustment to the environment is both inconsistent and unstable. No planned type of response to the environment is evident. Exhibits a trial and error reaction to the outside environment.

2. Organization lacks a set of response mechanisms which it can consistently put into effect when faced with a changing environment.

3. Management fails to articulate a viable strategy for the organization (wide disagreement among future domains and organizational structure).

4. Planning and control performed in a haphazard manner.

5. Structure, technology and processes not or improperly linked to strategy (strategy is a mere statement not an effective guide for behavior).

6. The organization's current strategy-structure is maintained despite overwhelming changes in the environment (realization that the organization is in trouble, but unwilling to attain a better suited strategy and structure).

7. Inability to locate new product or market opportunities (unwilling to scan the environment for new opportunities). Leadership within the organization concentrates excessively on internal business without ever asking what else should we be doing.
APPENDIX J

Data from Health Technology Division A
RESPONSES FROM HEALTH TECHNOLOGY DIVISION A

WHY WAS A MULTICOMPETENCY EDUCATIONAL PROGRAM DEVELOPED AND IMPLEMENTED AT THIS COLLEGE?

...it was one of the chairpersons that became interested in this for one or two ways...One through some of the trade journals and two in working with a number of the health care delivery systems. This thing of multicompetency was starting to surface and it was surfacing for obvious reasons...the chairperson for respiratory therapy was looking at this...not only to serve the allied health community but also to ensure the viability of his own programs. You can add a new dimension. Something that will perhaps attract students or retain those that you had...Not only to serve the allied health community...giving individuals some additional skills, but to ensure the viability of the already existing respiratory therapy program...we were looking at it too, quite selfishly, as here is a new program, a new way of generating additional enrollments. (Vice President for Education)

...there was a two-thrust environmental trend that suggested the development of that kind of program...with Diagnostic Related Groups and the hospitals looking for ways to conserve on personnel...it is perceived that they were in need of an individual that they can be more flexible in assigning. Second, within the institution we had a fairly broad choice of curriculum and interdisciplinary curricula in many areas, so we had the expertise to do this...lastly, we have a lot of hospitals in the area with a lot of people out there who have picked up diplomas or particular skills in one area who could fairly easily move into an associates degree program...that would give them greater employability. (Vice President for Planning)

...literature coming out nationally indicated that this was the trend of the health professions...Some changes in payment to hospitals such as the Diagnostic Related Groups...somewhat of a reduction in patient load at hospitals in which we saw the less critical patient being treated at home or on an outpatient basis rather than inpatient. That reduced work load indicated that many of the facilities wanted to use their personnel in more than one area...Ah, based on this we saw the need for a lot of additional training for the employees within the hospitals. If I could send my medical laboratory technician down and be trained in EKG, now I have two things I can do with him. I guess it all boils down to need. There is a community need for this. (Dean of Allied Health)

...I felt I had an obligation to look at the Health Division saying, "Hey, we've been existing for 20+ years and many of the programs are the
same as when we started...the basic idea is the same...Is health care the same as it was 10-20 years ago?" My answer is, "No."...I felt the multicompetency provided an answer or mode of change within this Division that I felt is necessary for the next few years...It was an insight that I had. I felt that...some of our traditional health care programs we were going to have to cut back...I began seeing a number of individuals and the literature supporting the idea that we (technical colleges) were dealing with more adults (now than we had in the past)...I think some of the literature defined them as "mature adults"...but anyway we're looking at a pool of 24-35 year olds that are interested in short-term training and quick entry into the job market...multicompetency is what I envisioned would satisfy that. (Program Chairperson)

...It started with a conference...and we listened to the administrators and the projected impact of Diagnostic Related Groups...people (from all areas of the service sector) were running afraid but the administrators said everything will work out. We will use people in more than one area...We came back from the conference convinced...we knew that this was a future trend...In the future we're going to be using more and more of these people...If you can anticipate needs, you're much better off and we believe we've anticipated a need...We anticipate placing students from that skill (phlebotomy and histology) in some Health Maintenance Organizations, UrgentCare Centers. (Program Chairperson)

CAN YOU DESCRIBE THE INTERNAL AND EXTERNAL FUNDING MECHANISMS FOR NEW PROGRAM DEVELOPMENT AT THIS COLLEGE?

...I proposed this...What we need to do is to look at a new program (such as the multicompetency program) like any other company would look at a new product...it is a capital investment...like any capital investment we don’t fund it our of operational money, we go into our reserves and we capitalize that venture...whatever the bottom dollar figure was...those funds then come out of our reserve dollars. (Vice President for Education)

...There is no external funding for it...internally the funding of the development usually consists of reassigning a faculty member and chairperson to develop the program and providing them with release time to work on it. (Vice President for Planning)

...No special monies are provided from anyone except internally to start a new program. (Dean of Allied Health)
...we got permission to use some money (from our own budgets), if you want to call it permission...The Dean runs the Health Division a little bit differently from some of the other deans...we're pretty much in charge of our own budget; if we can see how we can do it, (it's) go ahead and try it. (Program Chairperson)

HOW WOULD YOU SAY INTERNAL FUNDING INFLUENCED THE DEVELOPMENT OF A MULTICOMPETENCY EDUCATION PROGRAM?

...it wasn't so much internal funding as it was the opportunity to enhance efficiency of the use of faculty...there is flexibility for the development of new programs...the ideas don't all come from the President...most ideas come from the departmental level...the (college) departments are out there at the boundary between the environment and the college...they are the ones who have a pulse on what is happening out there...it is a bottom-up planning process with flexibility to allow departments to initiate the development of new programs. (Vice President for Planning)

...rather than having established at that time a budget for multicompetency, we just said, "Hey, take it out and if you are gonna' use an instructor for Med Lab, go ahead, the instructor's already paid for. If you need to hire additional part-timers for your own program we'll throw more money into your budget." (Dean of Allied Health)

...I was able to absorb the cost...each of the programs in allied health are separate, but they are dependent as well...they are interdependent through the sharing of the budgets...I can go to the Med Tech chairperson and ask her to help me cover the cost of something...in a sense, also, we don't have to go through any big, approval process with higher administration to get additional money put into your budget specifically to do this (program development and investigation)...That's what I'm talking about - internal funding. (Program Chairperson)

CAN YOU DESCRIBE THE INTERNAL COLLEGE PROCESS FOR NEW PROGRAM APPROVAL?

...The idea is developed...it is pulled out of the air...if a faculty member thinks of it...it can come from an employer...it can come from a professional group or some place...Now, further up the line someone would have been given the responsibility for program development... "Hey, we are going to put you on release time for a given amount of time to do this (develop a new program)." (Vice President for Education)
...departments suggest during planning process the new markets that we should investigate...looks reasonable to investigate the President in approving the plan will say, "Yes, go ahead and do that." (Vice President for Planning)


...So we did some talking to and prepared a lot of additional documentation... the Program Chairperson charged with developing the multicompetency program went to a number of hospitals and he got those people to make some statements about the concept...so we had to politic a little bit...it was my responsibility to get it done...the Dean worked with the chairperson and put it into a final format...sitting on sub-committees with Board members...I talked with one on several occasions to see if I could pin him down on what bothered him so much about this...as a Board of Trustee member, one spends a great deal of time on campus...we sit around and chat informally about things...the President really encourages this type of thing. (Vice President for Education)

...higher administration did support it...strictly based on the external assessment that the program was needed. And that we could fund it. (Dean of Allied Health)

...the Dean was very supportive...I was the initiator and would talk, discuss ideas and thoughts with the Dean...you can even tease him and call him the Scout...he goes ahead and then comes back and tells us whether we should circle or keep on going. The President did not like it. And members of the Board did not like it...I just credited it to something new and different and kept on trucking. The President came around...he now uses the multicompetency health program as an example to the community and other colleges of how this technical college keeps in pace with technological movement. (Program Chairperson)

...If they weren’t open minded, it would have gone no further. They (Dean and VP for Education) are there...the people who know the most about the concept do the presentation...with the implied and ever ready support of higher administration. (Program Chairperson)
HOW DID THE FACULTY AND OTHER CHAIRPERSONS IN THE DIVISION INFLUENCE THE DECISION TO DEVELOP AND IMPLEMENT A MULTICOMPETENCY EDUCATION PROGRAM?

...there was a lot of support for it. I suppose that support stems from their concern for their own well being...It was an opportunity to expand the (program) offerings and whenever you do that, let's face it you increase enrollments, job security and the rest of it. (Vice President for Education)

...It was influenced from the fact that those technologies that this (multicompetency program) would have any effect upon, supported and encouraged its development. We were fortunate here that we didn't have a turf or territory concern...we had no concern from the departments that this would in any way adversely affect their operations...for example, by taking some students adversely from their programs. (Dean of Allied Health)

...their support is still evolving...there was a split in the faculty, some were for, some were against, some were neutral...but any negative influence was not that great or did not impact the decision...their bottom line was give me my courses that I always teach and my territory and I’ll just continue to teach...as far as I was concerned, I was going to do it and that was it. I really didn’t care where they stood...I was appreciative of their speaking out because then I didn’t have to involve them in the program. (Program Chairperson)

...we already had that interrelating...between the two of us (chairpersons) and the departments that would be most involved...in Respiratory Therapy they already cooperate with Nursing and teach some of these skills...Mike goes up and talks to the nursing instructors and students about different pulmonary functions...there’s an interchange that maybe you don’t find in other places. (Program Chairperson)

PLEASE EXPOND ON THE EXTERNAL GROUPS WHICH SIGNIFICANTLY INFLUENCED THE DECISION TO DEVELOP AND IMPLEMENT A MULTICOMPETENCY ALLIED HEALTH PROGRAM?

...For example,...We have a series of a large number of smaller groups that are starting to sprout up...they have their own little building...there are about eight or nine specialists in the building and they provide a variety of health care (and told the chairperson working on the multicompetency program development they would be interested in hiring a multicompetent technician). (Vice President for Education)
it would be the hospitals...We were probably ahead of the hospitals taking it from the literature coming across our desk, picking up that this is the way the health profession is going...and it looked to us like the greatest input to this program might be already employed individuals that would be cross-trained and thus, able to maintain their employment...WHO OUT OF THESE HOSPITALS VOICED A NEED? Mainly administrators (in hospitals) were looking at the reduction in income due to the number of patients being somewhat reduced. They knew they had to do something to maintain full employment for their people. Why have three when you can have one do the job? (Dean of Allied Health)

Initiating the multicompetency program was a tremendous battle...could not get supportive data from the community and had to rely on documentation of futuristic view mainly from the allied health education literature....We eventually got support from the local health care community, once the program was established and announced...timing just played so much...I'm amazed because mid-managers of health care just simply do not read the same journals...it was explained and forecasted that this is what was going to be happening and keep this in mind...yet, when I investigated institutions for support, such as hospitals three years ago, I got doors slammed in my face...(Program Chairperson).

I would say the first external group is the one that held the conference in 1980, the American Medical Association's group on allied health education...from that point it would be the health maintenance organizations and the urgent care centers (newest types of health care provider organizations), because they're the ones who gave us the most support...the hospitals sort of zeroed out...their support wavered...we did get approvals from the accrediting bodies for histology and medical laboratory technician...and the Committee on Allied Health Education Accreditation accredited the phlebotomy portion. (Program Chairperson)

HOW DID EXTERNALLY DEFINED NEEDS BY PROSPECTIVE OR CURRENT EMPLOYERS OF YOUR GRADUATES AFFECT THE DECISION TO DEVELOP A MULTICOMPETENCY PROGRAM?

To that extent our (administration's) perception was really not based on factual data. When this whole thing was presented to me it just seemed to make a whole lot of sense...Boy, if they (hospitals) are trying to contain costs, then all of a sudden, I become a much more marketable person if I have more than one skill....The documentation came in this way...there are areas in which existing people or staff nurses, people who are trained in respiratory therapy, in particular, said it would be a fairly simple thing for that person trained in respiratory therapy to be trained additionally in EKG...new skills that
they felt they could fairly easily move into...I know there was never any data in terms of an area hospital saying, "Hey,...we are going to need X number of people trained in such and such a way"...There was no hard data in terms of we will need 40 or so people...or that there are five hospital departments who are planning to use this type of person...this is one of the very, very few programs in which need was not documented in that way. (Vice President for Education)

...Ellen, it starts out with a (an internal) perception here. 85 to 90 percent of the program ideas are the results of people inside perceiving a need that they later go out and document...we do have programs developed where the community beats down our door and says, "We need to have this"...however, the need for this one was not gotten that way...we perceived the need to go out and buy. (Vice President for Planning)

...the only reason it was developed was because we perceived an external need...again it's getting back to the literature we spoke of...we knew from the literature that it (multicompetency program) had been developed in other parts of the nation...We try to keep current at all times on current and future needs in the allied health area or in any area...HOW? Through literature, literature searches, contacts with our clinical and hospital facilities. We're out there, as you know, in technical education, in allied health with our students in all these facilities--out there daily, talking to those people (in service area), listening, asking questions. (Dean of Allied Health)

...I couldn't get a grasp on numbers and needs and the like...I went to the Board of Regents and asked if they would accept documentation for the literature...they gave the ok...from the literature I got descriptions of what was coming. (Program Chairperson)

...There wasn't (a defined external need in the immediate area for multicompetent technicians that could be documented)...but that need was coming down the road if you looked at the governmental regulations for hospital reimbursement...If you can anticipate the needs, you're much better off...and we believe we've anticipated a need that is growing at least in other areas of the state based on reviews of job ads in area papers. (Program Chairperson)
IS MARKET INFORMATION CONCERNING THE NEED FOR ALLIED HEALTH
PRACTITIONERS IN YOUR SERVICE AREA GATHERED BY THE DIVISION ON A
REGULAR BASIS?

...That is not done on a regular basis...we all survey our
graduates...it doesn't necessarily mean we go on a regular basis to the
employers and say "What other needs do you have?" (Program
Chairperson)

...the Dept. of Institutional Research helped me design a survey to
assess the job market for my graduates...there's a change there...the
market is getting tighter...so, we have an internal system that tells
you what's happening so that you have to look at the data and decide if
a cut in the number of students taken into the program is needed...BUT
COULDN'T THAT AFFECT YOUR FTE (FULL TIME EQUIVALENT) AND BUDGET
ALLOCATIONS? I think you have to take your lumps...I do not believe we
should be graduating people who have no hope of locating
positions...you have to look at this data and cut down the number of
students into the job market when jobs don't exist in that area or
you'll have a lot of disgruntled graduates out there...as a technical
college we need to be cognizant of these things. (Program Chairperson)

HOW DID THE FOLLOWING AFFECT THE DECISION TO DEVELOP AND IMPLEMENT A
MULTICOMPETENCY EDUCATION PROGRAM?

A) STRUCTURE OF THE DIVISION: Because many of the skill areas
presently existed in those departments. So that obviously facilitated
in bringing about those specialized courses and implementing the
multicompetent education program. (Vice President for Education)

...It's important that you have all the health programs in the same
division and that you have more than one...Administratively being
organized under one dean, all in the same division, facilitated the
development of the program. (Vice President for Planning)

...You have to have a completely team effort...forgetting turf and
territory...What is good for the institute, what is good for the
community; not just what is good for me...We have that...we do also
have excess time in the department...we're running at only 80 percent
utilization. (Dean of Allied Health)

...The organizational structure was a major reason in being able to
pull it off...I was chairing four programs...why couldn't we put all of
this together (various one year certificate types of programs and short
programs) and have a person with an Associate Degree....also, the
sharing with the chairperson in med lab...my relationship with that department made it very workable...and the fact that she (chairperson) was over all those separate small programs- phlebotomy, histology, urinalysis-made it possible. (Program Chairperson)

B) REWARD SYSTEM FOR DIVISION PERFORMANCE: I think the clear emphasis is upon doing the right things...whether a unit is rewarded for this is subject to debate...Doing things right is simply an assumption...Yes, we assume all of this is maintenance alright, everything you are doing now is maintenance...What else are you going to do?...What new things should we be doing? (Vice President for Planning)

...In other words, if a multicompetency program brings in more FTEs (full time equivalents) which would increase the total college subsidy, administration would look favorably upon the Division when it comes to budget time and the Division would get more of what it needs...That's what I mean by divisional reward...I would have a better status with higher administration if I'm opening a program vs. losing one...Because growth is what keeps an institution viable...Lastly, if opportunities existed in the community, and a division head just sat there and did nothing about them, you'd be replaced...(Dean of Allied Health)

...an informal process...simply that there are discretionary funds probably for the library, travel, etc. and the division that goes above and beyond is more likely to be rewarded. (Program Chairperson)

...I will say that the Dean is very quick about letting any of us know when monies are available for developing new programs...he encourages us to try for things...when the college released money for equipment, the VP for Planning asked, "Will this put us ahead of the game?" I told him yes and got the equipment. (Program Chairperson)

C) CONFLICT RESOLUTION AND COORDINATION MECHANISMS: The man who developed that program was coordinating several programs...and we felt it would be a fairly simple thing to develop the multicompetency right within his area and then just let him draw right off those existing programs. (Vice President for Education)

...The key to the whole thing was having everyone involved who would be involved in multicompetency be a party to the development of the program. They all bought into it. That in and of itself eliminates conflicts...as far as coordination, the multicompetency program could be consuming...but again, having the instructors located all within one department and on two floors of the building...planning ahead, so that
the departments can offer specific courses at a time when it is most convenient for them. In other words you don't put a workload on the Med Lab in their heaviest quarter. YOUR RULE IS THAT THE DEPARTMENT COMES FIRST IN A CONFLICT LIKE THAT? (This rule) then helps resolve conflict. Also, one chairperson has all of it under his control right now which makes it much easier. SO STRUCTURE HELPS TO COORDINATE?? That's right, because the director of the multicompetency program is the department chairperson of our Allied Health Department which consists of six different technologies (to be used in the multicompetency program). Lastly, nothing has to be resolved at this level. It has been resolved by the chairs. (Dean of Allied Health)

...Not everyone had to be involved in the multicompetency development that eliminates conflict. There's a lot of conflict in the development (and approval stages) that occurred mainly among the administrators...we just kept going over and over (the essence of the program and why it was necessary)...I'd meet him...and...eventually we'd meet and do it...the Dean paving the way...he would run ahead and explain to his superior what was going on...with the Chair of Medical Technology it was mostly discussion. JUST DISCUSSION?...Yeah, just discussion. We've worked together for 13 years, so it's, ah, that put a whole different light on it. (Program Chairperson)

...I think long-range planning is a coordination mechanism. We receive everybody's plans, so we have by knowing if someone else plans on using the department...Up to that point, my office was upstairs right next to the Chairperson of Allied Health, so basically the coordination was just by being next to each other, and our faculties were up there...the proximity allowed for a lot of informal discussion and problem solving, before any problems developed. (Program Chairperson)

HOW DID THE CURRENT TYPES OF PROGRAMS, FACILITIES AND INSTRUCTIONAL PERSONNEL INFLUENCE THE DECISION TO DEVELOP AND IMPLEMENT THIS TYPE OF PROGRAM?

...having the faculty who are trained and available for assignment to the multicompetency program...the variety of current offerings...it seems that an institution has to be of a certain size and its offerings of a certain magnitude to support such a program in order to have the curriculum. (Vice President for Planning)

...Your expertise was already available in the Division. You could utilize that expertise and have a more efficient workload (as far as instructional personnel are concerned)...No new facilities were required. Classes, labs were utilized that already existed for the other programs...you had no big increase in cost to build facilities,
hire personnel, ah, anything like that. It was already in existence...the program was there (in the sense that) it had the Electrocardiography and the Emergency Medical Technician areas. It has the Histology and the Med Lab areas. It had the Respiratory program already there. (Dean of Allied Health)

...We have them...three of the eight multicompetency options were already available in the curriculum...we had the equipment, the facilities, lab space and personnel...as far as personnel was concerned, I had an insight...some of our traditional programs were going to have to cut back...What would we do with our faculty members?...we can find other places for them to teach. (Program Chairperson).

...the basic core programs were in place...as far as personnel are concerned, the attitude of the college faculty involved in this has always been, "Let's try it."...similar to the attitude of the administration. (Program Chairperson)

OVER THE PAST 5 TO 10 YEARS HAS THE ALLIED HEALTH DIVISION GROWN MORE THROUGH THE EXTENSION OF CURRENT OR RELATED PRODUCTS OR THROUGH DIVERSIFICATION INTO NEW PRODUCT AREAS?

...I guess the latter...if there is to be any growth in the health area at all (in technical colleges). It has to be through product differentiation... through new program development. (Vice President for Planning)

...It has grown, I would say, more through the expansion of new programs in that our existing programs were basically operating at capacity and were filling the needs of the community. (Dean of Allied Health)

...we've done both. expansion through the addition of the traditional types of allied health programs and through the development and addition of non-traditional (multicompetency). (Program Chairperson)

...a little of both...we've expanded numbers over the past five years in some programs...but then we've diversified by adding the multicompetency program, which keeps students who are waiting to get into traditional allied health programs going to the college...this generates FTE reimbursement (meaning more dollars to the college general fund). (Program Chairperson)
APPENDIX K

Data from Health Technology Division B
RESPONSES FROM HEALTH TECHNOLOGY DIVISION B

FROM YOUR PERSPECTIVE WHY WAS A MULTICOMPETENCY PROGRAM DEVELOPED AT THIS COLLEGE?

...if the Dean, or if the leadership of an academic division feels that there is a need for any kind of a health manpower program, they will initiate a multi-phasic process that will enable us to explore the potential of a program without making the final commitment to the program which is actually putting that program in one of our periodic budget requests...the Dean of Allied Health has a hunch that these people (multicompetent technicians) are needed...it is our experience in this college that what really makes a difference at this institution in terms of enrollment, is the number of different programs that we offer...right now generally enrollments across the board are declining, so if we are significantly going to change our enrollment trends, we’ve got to do some things significantly different...the thing that we find that really makes a difference is the number of new programs or number of program alternatives available to new students. (Vice President for Instruction)

...we are moving in that direction (toward developing multicompetency education programs) because our sense of the future is that’s what is going to happen in the practice site and that type of individual is going to be the marketable graduate...In order for hospitals to continue to seek a cost-effective delivery of cardiopulmonary services, they are going to want to hire someone who has some type of cross specialty...we have discussed this with our Respiratory Advisory Committee and some members think it is fantastic...because that’s structurally how they’re moving in their hospital, to combine these different departments and to begin, in fact, cross-staffing them...it goes from that to the other extreme of the Respiratory Therapy Dept. that swears up and down that they’ll never do it, that it would be diluting the quality of care. So, essentially our wisdom is that the first case type of hospital that’s heading in that direction is really the effective wave of the future...Bob and his faculty will be involved with going out and making themselves cognizant of what’s happening in that area. (Dean of Allied Health)

WHO IS ON THE ADVISORY COMMITTEE THAT GIVES YOU INDICATIONS THAT THIS IS THE WAY WE’RE GOING SO THEREFORE YOU SHOULD...? It really was not so much them coming to us and saying "This is what you should do", as much as our making a judgement on what we think is appropriate. By the time we graduate our first people, we know there’s one hospital already heading in that direction and virtually there...I’m sure they’ll be happy to employ those people...our guesstimate is that by the time we
get there (program up and running and graduating people), there may even be other possibilities and that pretty much everyone will be doing it. (Dean of Allied Health)

HOW IS THE GERIATRIC MULTICOMPETENCY PROGRAM DIFFERENT?...I think here we looked at demographics...it turns our that in our service area, the proportion of elderly people is significant in terms of the total population. We looked at our current programs and said, "We really don't have anything right on target...we don't really have anything that is focused on geriatrics and clearly geriatrics is the future". We essentially started wondering whether there would be a market for someone who was focused on geriatrics and had multiple skills...we have gone into it with the idea that the demographics tell us that there are going to be a lot of elderly patients that will need health care, both in an inpatient situation and a home health care situation, and someone is going to have to provide it. (Dean of Allied Health)

HOW WAS YOUR MULTIDISCIPLINARY PROGRAM CATEGORIZED?...It’s not really a new program. It’s simply taking what we’re doing now and shuffling it around in different ways and combining it differently...with the cardiopulmonary program barriers are not as great...All of those are recognizable categories; we’re just putting them together in different pieces but we’ll meet the accreditation standards of all the groups. We’re really not doing anything innovative in that sense with packaging it different. We’re not crossing turf lines...with Geriatrics it will be different...we might get to a point and say it is not workable. (Dean of Allied Health)

Continuing with Original Question: FROM YOUR PERSPECTIVE WHY WAS A MULTICOMPETENCY PROGRAM DEVELOPED AT THIS COLLEGE?

...Probably because of the Dean’s influence...I know most of the reading I’ve done has supported multicompetency training based on the need for cost control...I haven’t heard of hospitals coming to us and saying, "We’d like this particular person because we’re planning on changing our staffing." It seems that a lot of the ideas behind educational change come from educational institutions and then an attempt is made to sell them to industry...a lot of futurists seem to be affiliated with training as opposed to clinical practice...Hospitals are notoriously short-sighted when it comes to advance planning...WOULD YOU SAY THAT THE DEAN IS A FUTURIST? Well, she spends a lot of time looking at these things. I think she’s very interested. THE DEAN FELT THAT WITH GERIATRICS, THERE WAS NOT AN INITIAL REQUEST FROM INDUSTRY AND THAT THE IDEA DEVELOPED HERE IN-HOUSE AND A PROGRAM COORDINATOR WENT OUT AND TALKED TO NURSING HOMES ABOUT IT AND SEEMED TO DISCOVER AN INTEREST. IS THIS ACCURATE? ...that was all based on demographics,
people over 80 getting ill and unable to take care of themselves...in the institutions that do provide care, it would seem that it would be most cost effective to have somebody who can perform a number of different things...I think we’re gonna’ try a sales pitch on those (geriatric multicompetent practitioners) because we think they can be used in a lot of community, residential homes, those kind of things. (Asst. Dean of Health Technologies)

...the needs of the community which we serve had indicators which showed that people who hire individuals to provide patient care were interested in individuals that could do more than one thing and have more facets than just one specialty area...In my own case it’s Respiratory Therapy and noting in some of our hospitals in this area and doing some further readings that hospitals were interested in serving patients in a cost efficient manner; it’s more cost efficient to have a person do two or three different things, two specialty items than maybe just one...Part of our mission at College B is trying to anticipate where these job needs may occur and to help focus in on this. I think that might also be the reason why we saw this and said, "Here’s an opportunity for us." (Program Director of Respiratory Therapy)

...My interest is in gerontology and that interest developed out of, obviously, the demonstrable need for geriatric services and then the exploding population of geriatric patients. BUT WHY AT THIS INSTITUTION? There aren’t any other institutions in the area who can provide a variety of different technicians in different disciplines, you could pool the educational specialists in this area to develop a curriculum that would be comprehensive for a multicompetent type of person...there are actually three options. One is the development of a multicompetent technician; the other is the development of a curriculum for already certified technicians to become more competent in gerontology. The third is simply to produce seminars to make individuals in the respective professions more aware of the need for gerontological competency. (Program Director)

HOW DID INTERNAL/EXTERNAL FUNDING INFLUENCE THE DECISION TO EXPLORE AND DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...so far we haven’t committed a significant amount of money...new program development is a part of the Dean’s job...so a good dean will be doing these kinds of things...although a special pool of development monies was not set aside for this, there’s nothing that would prevent a dean from requesting (and receiving) a special allocation to explore a program, if that need occurred. (Vice President for Instruction)
...we don’t have money that’s labeled "Program Development"... obviously, if we had not had the support of the Health Technology budget, we would not have been able to provide the release time for YYYY to do it. So I guess in that sense you could say it was a factor. (Dean of Allied Health)

...I would say...agreeing to hire part-time instructors (they pick up the course load), allowing them (the people with the ideas) to go ahead and further develop that idea, develop that curriculum, to do some further investigation...discussing the ideas with the Dean and other faculty can only do so much...if we didn’t have the internal start-up (funds), that release time, then we won’t go (ahead with program development). (Program Director)

...I don’t think that (external funding) was the reason for this type of development...I think the real reason was based on our own analysis of the future of allied health education and seeing that there is a need for this type of individual...internal funding-wise, I guess to expand the population of students, so that we have an on-going student population. (Program Director)

LET’S TALK A LITTLE ABOUT PROGRAM APPROVAL. CAN YOU DESCRIBE FOR ME HOW NEW PROGRAMS ARE APPROVED AT THIS COLLEGE?

...initially, someone gets an idea and we begin exploring it with the Ohio Board of Regents (through preliminary approval). Right now the floodgates are open at the Regents. So if there is an area in which you feel you may be interested in having a program in, you will then go to the Regents...so you go in with all of your requests to the Regents when the doors are open...you request approval to pursue because tomorrow they may say, "We’re not accepting anymore requests for new programs."...we want to make sure that we have requested the approval for a program we may not fully intend to seriously explore...the Regents are reluctant to approve more than one institution in a certain community and College B’s area, unlike College A’s area has several two-year institutions...in the past we have requested a program and have been denied authorization to proceed because another institution has requested to develop the same type of program!...if you are projecting a growth posture, and we are projecting a growth posture, we want to have and to make sure we have the opportunity to proceed when we’re ready...This is within the context of a master plan which is calling for growth and I think the mission statement of the college and the master plan of the college is important. (Vice President for Instruction)
...At this point it's somewhat informal. It's really a matter of me saying to the VP for Instruction, "I think we're going to look into a Geriatric and Cardiopulmonary program. Do you have any problems with that?" I would say that 99 times out of 100, it's a rubber stamp. If the Dean thinks it's an appropriate program (idea) to investigate, the Dean investigates it and proceeds. (Dean of Allied Health)

...the idea usually comes from co-op employers, clinical affiliates, advisory committees or faculty...that idea usually comes back to the Division and is discussed with the Dean and other faculty members...then the idea is brought to the Institutional Advisory Committee...WHAT IS THAT?...this committee was formed in order to try and keep tabs on what different divisions were doing...it's kind of a coordinating body to help coordinate those outside activities of faculty who may be doing things that are either a duplication or that could be complimentary to one another. IS THIS GOING INTO THE FINAL STAGES OF APPROVAL? Once we get beyond the Institutional Advisory Committee...we usually go for preliminary approval from the Ohio Board of Regents (OBR)...In some cases we go for preliminary approval sooner if we think that the four year college up the street is going to file because apparently the OBR gives final approval (for the one and only program in the area) according to who files first. (Program Director)

HOW DID THE BOARD OF TRUSTEES, THE PRESIDENT, YOURSELF OR THE DEAN AFFECT THE DECISION TO EXPLORE AND TO DEVELOP A MULTICOMPETENCY PROGRAM?

...so right now, the major thrust for this (multicompetency program development) is at the Dean's level. Whether it lives or dies will depend on the Dean...there's no question in my mind about this kind of a program, whether it's a go or a no-go will depend upon the leadership or lack of leadership that the Dean shows. (Vice President for Instruction)

...Actually, I forgot to tell you...one of the first people to raise the geriatric issue was one of our Board of Trustees members...that member is in charge of the Office on Aging...he had been to a White House Conference on Aging several years ago and shared some information with the President who sent it to me...he passed on information and just said, "I went to this conference and here's the information. Someone may be interested in it." HOW ABOUT THE PRESIDENT OR THE VP FOR INSTRUCTION? Only as an approval which is in this case a rubber stamp...HOW ABOUT YOURSELF?...the program would not be investigated unless I instructed that it be...DID YOU INITIATE THE INVESTIGATION? Well, yes, in the sense that I approached one of the faculty and asked if he would be interested in working on this. (Dean of Allied Health)
...A lot of decisions on those kind of things (new program development) really lie with the Dean of the Division...I think she (Dean) planted the idea and supported suggestions for such a thing...so really everyone else, the President and the VP for Instruction, I've never seen them running around saying, "We really want you to start a new program"...they are pushing for it, but they don’t give anyone any difficulty and are certainly willing to assist. (Asst Dean of Allied Health)

...but I think the Dean wouldn’t have had a major impact had she not been so supportive regarding release time...it would have just died...HOW ABOUT THE PRESIDENT AND VP FOR INSTRUCTION?...they were both supportive...maybe for various reasons, but I think it (development of multicompetency education) falls into the mission of the college. I do think there’s a possibility of new job opportunities with changing environments and we should at least keep our eyes peeled...trying to stay alert to changing influences and he(President) thought it was a pretty good idea. (Program Director)

...I can only go for the Dean. Actually, she really initiated it...in the sense of bringing in ideas to a particular faculty member and then trying to generate interest in that idea...putting the seed in the faculty member...OTHER THAN THAT, HOW DID SHE AFFECT THE DECISION TO GO AHEAD WITH THE EXPLORATION AND DEVELOPMENT? Support. Continual support...allowing us to attend seminars. Free time. WHAT’S FREE TIME? Decreasing your schedule load to investigate the area. Supplying information. (Program Director)

HOW DID THE FACULTY AND OTHER CHAIRPERSONS IN THE HEALTH TECHNOLOGIES DIVISION INFLUENCE THE DECISION TO INVESTIGATE AND DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...with Cardiopulmonary...there was communication with the Medical Assisting chairperson who had been shepherdng ECG (Electrocardiography Program) along and she was supportive of the cardiopulmonary multidisciplinary concept...but I'm sure if she had been violently opposed to it, things would have been difficult. So I guess you could say indirectly, you know, there was an impact because she was agreeable and cooperated. She met with the Respiratory Therapy Chairperson and I and the Asst. Dean to talk about this...with the geriatric program idea when it was mentioned at a faculty meeting, everybody said that sounds like a good idea, we ought to do something in geriatrics...it wasn’t an issue...If we had a nursing program it might have been a problem...I could envision the Director of the Nursing Program might say, "That's what nurses do; if we do something like that (geriatric practitioner) we should have it as a specialty under nursing." (Dean of Allied Health)
...I've never heard anybody complain...the faculty in Respiratory Therapy assisted with the curriculum development. (Asst. Dean Allied Health)

...Oh, I don't want to say influenced, not at all...the other respiratory faculty members think that it's a pretty good idea. (Program Director)

CAN YOU ENUMERATE UPON THE EXTERNAL GROUPS WHICH MAY HAVE SIGNIFICANTLY INFLUENCED THE DECISION TO INVESTIGATE AND TO DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...I mean the fact that we (college administration and faculty) perceive changes in the health care industry, and we're seeing different kinds of provider institutions evolve and a lot of them are not subject to the accreditation hoopla...I suppose that a lot of these proprietary healthcare institutions, etc., are going to deliver health care as economically as they can...You know what I mean, we're seeing occupancy rates at 50 percent and this proliferation of new provider institutions...some that are privately owned...You know I've seen the rural hospitals lobby four years ago...saying we can't afford to hire one of each; we need someone who can do a lot of both. (Vice President for Instruction)

...the concepts were probably indirectly affected by what the Chair of Respiratory Therapy learned through that respective professional organization...I suppose indirectly the geriatric thing in terms of my involvement with the national and state Allied Health Society, and having the opportunity through these societies to talk with people from other countries, states and institutions who may have done some things in multicompetency. (Dean of Allied Health)

...I guess...employers, the hospitals...who currently use on some shifts the Respiratory Therapy personnel to do some of the electrocardiographic duties. Other types of employers would be home health care and equipment providers...our own advisory groups influenced us...We have a short-term program in electrocardiography and the advisory committee for that program suggested further training, the ability to do more things...articles in professional journals which documented in smaller hospitals, respiratory therapists were being used for other things than just respiratory therapy...OTHER ACADEMIC INSTITUTIONS? I should say, of any College A started and I think proposed it to the Board of Regents...I think that was an incentive for us to look that somebody else was doing it. We're just not out in left field. (Program Director)
...The major influence, I think, came from the National Commission on Allied Health Education. I think that they have been at the forefront of the development of a multicompetent allied health technician...Maple Knoll, a progressive alternative to the traditional nursing home influenced the pursuit of the idea simply through their interest in such a practitioner. HOW DID YOU DISCOVER MAPLE KNOLL? The Dean...she is very informed about allied health education...I would put her almost as a national expert...I just thank God she's here...the woman is well informed! I would imagine that she could easily have many opportunities at other institutions, but I think the nature of the college would be very synonomous with her Division...WHAT DO YOU MEAN?...Well, the CEO allows a lot of flexibility when it comes to the development of ideas. He does not intervene in the sense of roadblocking...maybe because of his involvement in other aspects...financial matters, etc...he's truly a CEO and more of a non-academician...and that's fine. (Program Director)

HOW DID EXTERNALLY DEFINED NEEDS BY PROSPECTIVE OR CURRENT EMPLOYERS AFFECT THE DECISION TO INVESTIGATE AND DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...I think the "hunch" that there was a need for these kind of people has evolved from either expressed or perceived needs on the part of the potential employers...with the geriatric area, the realization that, just looking at our demography...at the profile of America today...and recognizing how inadequate the whole geriatric field is. (Vice President for Instruction)

...from our communication with and observation of what was happening and what we view as progressive institutions gave us further evidence that we were heading in the right direction; that we should continue that way. Again, in the Geriatric Multicompetency Program, I don't think there's any answer there. In fact, part of what we're trying to do is actually go to the employer and say, "Look, if we were to prepare this type of person, how would they fit into your staffing?"...The Geriatric Program is very much up in the air...We have now a needs assessment survey that was painfully developed...right now the need for this program is not externally documented...we (internally at this college) perceive that a need does exist. DID YOU DO A NEEDS SURVEY FOR THE CARDIOPULMONARY TECHNICIAN PROGRAM? No, in our minds, it's not really a new program. We were already offering an Electrocardiography Program, a two-year respiratory degree program and a one-year respiratory certificate program...we're just revising the curriculum in those areas and allowing the students to put them together in various formats, similar to what another urban technical college in the state has done. (Dean of Allied Health)
I think the employers through the advisory committees indicated that they felt there would be a need for this type of person...faculty members who deal closely with the employers became aware of outside influences affecting home care type of companies' needs for more multicompetent personnel...then came this encouragement from the college...WHAT DO YOU MEAN?...the idea is to pursue avenues to increase enrollment and to counterbalance the decreases that are occurring due to fewer eighteen year olds...the administration's viewpoint is if you don’t want to lose ground, set goals to gain ground and get everyone off and running on these goals...the college had as its goal to continue growth...and it was decided that we would have a five-year plan to increase the enrollments by a certain number...to do it, the administration said, "If you have some ideas, bring them to us."...so what do you do...you look around and put out your antennae and begin to look at things differently...we came up with the idea and decided to try and pursue it (development of a multicompetent cardiopulmonary technician). (Program Director)

IS MARKET INFORMATION OR INFORMATION CONCERNING WHAT THE CONSUMERS OF YOUR PRODUCTS AND SERVICES WANT FROM YOUR INSTITUTION IN REGARDS TO THE NEED FOR ALLIED HEALTH PRACTITIONERS IN THIS SERVICE AREA OBTAINED REGULARLY BY THE DIVISION?

...the mission of two-year colleges is to produce a product which is needed by our community...And which is utilized in our community, so we rely heavily on our advisory committees for advice about what is needed, and we rely heavily on our graduate follow-up surveys to demonstrate...that our graduates are employed...We meet with our advisory committees on a regular basis and continually get feedback from them so that...if a program is not needed, we'll terminate it. We have terminated programs in the past and we'll continue to terminate them in the future. (Vice President for Instruction)

...the Greater City Hospital Council...has a committee on health career issues within their structure...that group had always gathered information from member institutions and had periodically done surveys that they have shared with us...over that past three years, they've done a yearly survey of their constituents. (Dean of Allied Health)

...the Advisory Committees meet regularly...Hospital Council does surveys of personnel officers...once a year...the faculty has contact with employers through clinical affiliations...and they talk a lot. (Asst. Dean)
...Through division members' participation in local and national professional organizations...our clinical training areas are also our principal employers...that alone allows division (college) personnel to assess the marketability of their grads...information is gathered informally on a continual basis...by Program Directors and faculty...in order to do enrollment projections. (Program Director)

HOW DID THE FOLLOWING FACTORS AFFECT THE DECISION NOT TO DEVELOP A MULTICOMPETENCY PROGRAM? A) THE STRUCTURE OF THE DIVISION OR HOW PROGRAMS ARE STRUCTURED ADMINISTRATIVELY B) REWARD SYSTEM FOR DIVISION PERFORMANCE C) CONFLICT RESOLUTION AND COORDINATION MECHANISMS.

A) STRUCTURE: ...the Dean is the boss...directs all health technology programs and in that position is critical in bringing about cooperation and coordination...they (deans) control the budget...there's where they get their authority...they are the ultimate decision makers...in other institutions where they have strong department chairs, that makes it more difficult to get those two units to work together (which is needed to develop a multicompetency program). (Vice President for Instruction)

...the Cardiopulmonary Multicompetency Program was founded in Respiratory Therapy...the major part of the curriculum changes and evolutions are in that one program which has one chairperson...the person responsible for the electrocardiography portion of that was very supportive...it didn’t turn out to be a barrier. (Dean of Allied Health)

...because a lot of decisions are made within the Division...influences outside of the Division are just advisory...the administrators don't serve as roadblocks...there's a lot of flexibility...so you can do things and make changes pretty easily and quickly and you don’t have to go through 15,000 people who don’t meet until next month...the College Curriculum Committee is not the kind of group that can sway things...presenting a curriculum to them ...it's a courtesy. (Asst. Dean of Allied Health)

...our curricular structure for some of the programs that we have...the concept of blocks of curriculum lead to groupings of competency, so if I wanted to I could take a block in one area and another block in another area without completing the associates degree requirements in either area but I would complete the technical certificate kind of requirements...that qualified me for a certificate with a specific job outline...The idea of having curriculum that are flexible and broken down into specific blocks ...so that the idea of multicompetency would be feasible here...I think our structure leads us to think that way. (Program Director)
...the close knit and cooperative nature of the program directors...channelled through the Dean...our system is unique in the respect of not having chairs and rank...we have Program Directors who are more coordinators than chairpersons. (Program Director)

REWARD STRUCTURE FOR DIVISION PERFORMANCE:...I think the administration can realize its goals by encouraging people to pursue their ideas...I think that is rewarding. (Vice President for Instruction)

...if the Dean were going to increase enrollments, yeah, we're (administration) going to provide resources to do that...for instance, with the Occupational Therapy Assistant program, we will have no problem getting money for a consultant or the number of faculty we need...it's clear that the college is in a growth posture...it is to our advantage as a division to show growth and to think of ways to grow. (Dean of Allied Health)

...get more heads (headcount-full time equivalent enrollment) and that looks real nice. The more people the better...it's easier when it comes budget time and you can get more money...you don't have a real hard time justifying your needs. (Asst. Dean for Allied Health)

...You may get a little more on budget...I don't know...Talk to the Dean. (Program Director)

...the uniqueness in the community, I think that's a reward. HOW IS THAT A REWARD? Prestige, growth and expansion. (Program Director)

C) CONFLICT AND COORDINATION MECHANISMS: ...it might be related to involving early on in our discussions the persons to be involved in program development...the Assistant Dean is involved in all program development...certainly Tom did play a role in coordinating all of this...he facilitated getting them altogether. (Dean of Allied Health)

...I was familiar with all of the programs involved in the Cardiography development...I always go to the meetings...I guess a large portion of the people in this Division communicate pretty well, too. (Asst. Dean for Allied Health)

HOW DID THE CURRENT TYPES OF PROGRAMS, THE FACILITIES AND THE INSTRUCTIONAL PERSONNEL INFLUENCE THE DECISION TO INVESTIGATE AND DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...I think in Cardiopulmonary that applies (we had everything we needed in terms of program content)...we have an awareness that we need to develop one or more of the faculty...we've opted in terms of having an
existing faculty member develop themselves...the Program Director of Respiratory Therapy will be taking some time to really educate and develop himself through contacts about the whole area. In terms of facilities and equipment, the more basic stuff we already have...it would be more reasonable to work out things with the clinical facilities to utilize their equipment when it comes to the more specialized areas like echocardiography. (Dean of Allied Health)

...the fact that we already had a respiratory therapy program and a cardiotech program made it easier...with the cardiopulmonary we already had some clinical contacts and that made it easier to pursue. (Asst. Dean of Allied Health)

...we already had programs from which these off-shoots could be made...we had some of the facilities...we had clinical affiliates that were interested in both areas (respiratory and cardiography). (Program Director)

...the types of programs made an easy cross-over approach possible. Facilities-wise, the labs are comprehensive...the expandability of the Division is evident...the resources do exist for the most part within the faculty. (Program Director)

OVER THE PAST FIVE TO TEN YEARS HAS THE ALLIED HEALTH DIVISION GROWN MORE THROUGH THE EXTENSION OF CURRENT OR RELATED PRODUCTS OR THROUGH DIVERSIFICATION INTO NEW PRODUCT AREAS?

...what we have done, I think, is to keep pace with the evolving allied health manpower. In other words, we have been riding the wave of the evolution of allied health...I think we have grown in both ways...through the evolution of the traditional allied health program and by expanding in numbers. (Vice President for Instruction)

...over the past five years we have grown considerably through the addition of traditional allied health programs and by increasing enrollment in the existing programs. (Dean of Allied Health)

...primarily through current or related products. (Asst Dean)

...I think in the past...we had expanded in more of the traditional way...but we’re just beginning to diversify into new product areas. (Program Director)

...it’s the first, expanding the numbers and in developing traditional programs. (Program Director)
APPENDIX L

Data from Health Technology Division C
WHY HASN'T A MULTICOMPETENCY ALLIED HEALTH EDUCATION PROGRAM BEEN DEVELOPED AT THIS INSTITUTION?

...Now why we haven't gone into the generalist system, I believe, is that we haven't seen a real need for that. And I think our program (Health Technology Division) is geared on specifically our community needs and on a wider need, let's say a regional need but not too wide as far as a regional need is concerned. And we have not seen hospitals articulating the need for a generalist Allied Health person...We are fairly responsive to what the needs of the community are. I believe we shouldn't be telling the hospitals, "this is what you ought to have." I think we have to work with the hospitals and say, "What do you need?" Then, we'll construct a program that will meet these needs. And we've been very successful in doing it that way. (President)

...In the late 70s we started the Allied Health Technologies...there were needs in specific areas rather than multiple disciplinary type of programs being desired. Each particular one had their own accrediting agencies and the accrediting agencies pretty much dictated what the curriculum would be in terms of getting accreditation for that specific program...however, I see this gradually changing and even in our own case, where possible we'll be thinking in the next couple of years about the multiple discipline types of technologies...Basically, it hasn't been introduced, i.e., the need for this particular multidiscipline technology. WHAT DO YOU MEAN IT HASN'T BEEN INTRODUCED? I think the accrediting agencies had a lot to do with that; it was their initial requirement for each specific program. They didn't leave any room. Really, when you met their requirements there wasn't anything left in the Associate Degree program, at least, that you could cross-specify. And I think those people (those associated with accreditation) are going to have to do some rethinking if that's possible. (Vice President for Instruction)

...I think I can answer that in a couple of different ways. One, this College's Allied Health Division is fairly new. Secondly, it may have to do with the fact that I myself am new and have only been on board here for a little over 2 years and feel that the first year is an orientation year with the second year getting into greater depth. Only now I'm ready to start moving out to tend to some new things and stretch our horizons. Thirdly, it may have to do with this--multicompetency is a new concept in health care. (Dean of Allied Health)
Quite truthfully, for myself, because it hasn’t been thought of. WHEN YOU SAY THOUGHT OF, WHAT DO YOU MEAN? Conceived as being something that might be viable and necessary by those over me and myself...I have approached the Dean and asked her about taking classes in Respiratory Therapy to multicompetency myself and she was thrilled...we thought, why not try it here and see if we can work it into our allied health division in some way...the Program Director of Respiratory therapy is excited about the possibility of working toward a multicompetency program in the future...it just requires a lot of advance planning and excessive thought. He is in the process of converting his program into a two-year degree program from a one-year certificate program, so that is his priority at the moment. (Program Chairperson)

COULD YOU DESCRIBE FOR ME AND GIVE ME EXAMPLES OF THE INTERNAL AND EXTERNAL FUNDING MECHANISMS FOR THE DEVELOPMENT OF NEW PROGRAMS AT THIS COLLEGE?

...As far as I can say, most new programs are started through internal funding...we look for community donations, but major funding for programs was out of internal allocation...CAN YOU GIVE ME AN EXAMPLE?...Bioengineering is an example, where hospitals have said we need people to help maintain our high tech equipment...and we have a gentleman on our Board right now who is associated with Doctor’s Hospital who said that they will do anything they can to help support the program...so I’m sure we can obtain some resources from them...But there’s an example of a demonstrated, a stated need in the community, and we’re responding to that by trying to start the program. (President)

...to get a new program started, investigating the needs, and implementing the program, you would have to use funds that you have saved or received from other programs that you’ve had in operation over the year...We, of course, determine if there’s a need for this specific program in the local area. HOW IS THAT DONE? This is done by a needs assessment where the community is surveyed. (Vice President for Instruction)

HOW DID INTERNAL/EXTERNAL FUNDING INFLUENCE THE DECISION OR THRUST NOT TO EXPLORE, DEVELOP OR IMPLEMENT A MULTICOMPETENCY EDUCATION PROGRAM?

...I don’t think either had any influence at all because we haven’t seen the need for that type of program. (President)
The multiple discipline is relatively new in our thinking here at this college. And we have not seen a need to go into this particular type...It hasn’t influenced the decision up to this point. (Vice President for Instruction)

I don’t think that (funding) was considered at that time...I don’t think funding is influential at all in this situation...I think it, the concept at least to me and I think to the people in the Division, it’s too new--the idea of multicompetency and cross-disciplinary education. (Dean of Allied Health)

...I am not aware that funding has played a role at this point because of the newness of the concept in this Division at this College. (Program Chairperson)

COULD YOU DESCRIBE FOR ME THE INTERNAL COLLEGE PROCESS FOR NEW PROGRAM APPROVAL AT THIS COLLEGE?

Once we get the curriculum established through a DACUM (structured method for developing and revising curricula) session, we will do a formal survey through the Vice President for Instruction. After that we take the total package to the President’s Cabinet (representation from entire college) for their approval. Then up to the Board of Trustees and onto the Board of Regents...THE BOARD OF TRUSTEES IS NOT JUST A RUBBER STAMP? Absolutely not, 99.9 percent of the time they approve it because we will have given them all the background, all the information, all the data that supports moving in that direction...WHO GIVES APPROVAL FOR PURSUING THE DEVELOPMENT OF AN INITIAL IDEA? Basically, the Vice President for Instruction. He would do that...the final work in whether they’re going to go ahead with the previously described process would be with the VP for Instruction. (President)

...We first of all have to do a survey of the community to find out if there are employers out there that will hire these graduates and if there is a need....As far as the college was concerned, I would consult with the VP for Instruction and see if he thought that this looked positive...Final administrative approval would go through the Board of Trustees. After their approval onto the Ohio Board of Regents. (Dean of Allied Health)

Ideas for new programs can come either from the top down or from the bottom up. So either from the President or the Board of Trustees or from the grass roots department level...If it comes from the top down, the appropriate Deans are included in the decision-making process...Now in the case of the reverse, when the ideas come from the grass roots
level, such as what we’re contemplating here (multicompetency allied health education), sort of a feasibility study has to be undertaken. WHAT’S THAT? Kind of a polling among the community to see whether it would be something that is accepted and supported, clinically as well as professionally. (Program Chairperson)

HOW DID THE BOARD OF TRUSTEES, THE PRESIDENT, THE VICE PRESIDENT FOR INSTRUCTION AND THE DEAN INFLUENCE OR AFFECT THE DECISION NOT TO DEVELOP AND IMPLEMENT A MULTICOMPETENCY EDUCATION PROGRAM?

...Well, #1, I believe that we haven’t discussed internally a need for that. So, nobody I know of, has articulated in saying that, "We ought to look at multicompetency type of instruction." If nobody’s ever brought that to our attention, my attention or the VP for Instruction’s attention saying this is a demonstrated need, then that’s as far as it goes. Then we can’t even bother. WHAT DO YOU DEFINE AS A DEMONSTRATED NEED? I would say the allied health care areas that would hire the people with the competencies that say they need to have. If they articulate a need for a physical therapist and they say we will hire those people that you train, I think that’s a demonstrated need. As long as this need is not identified by just one institution but by several. (President)

...The idea has not really been presented to the group (dominant coalition?) at this point. (Vice President for Instruction)

...It hasn’t been suggested yet. No, there was no influence...But they are supportive of the chairperson of physical therapy enrolling in another technology...to do that I approached the Vice President for Instruction and the President and told them about it...they heartedly approved it. (Dean for Allied Health)

...At this point I am aware that there is a general feeling from the administration that it’s okay to pursue the idea. That does not say that in the future they may decide that it is not possible to actually implement it. (Program Chairperson)

DID THE FACULTY AND OTHER CHAIRPERSONS IN THE HEALTH TECHNOLOGIES DIVISION INFLUENCE THE THRUST NOT TO CONSIDER OR DEVELOP A MULTICOMPETENCY PROGRAM?

...See, again, nobody’s ever, we’ve never even talked about it, developing that kind of program...normally it’s at the division level that things start to be discussed. And they discuss it with the faculty and with the chairpersons before administration. And I would
say that it's done preliminarily. We look at multicompetency education and if we feel there really isn't a need in our community we won't develop it any further...There would be kind of a general discussion that, say, at the President's Cabinet level as to whether we ought to move in that direction or not. (President)

...It hasn't come up. (Vice President for Instruction)

...It hasn't come up...SO THESE INDIVIDUALS WERE NOT FACTORS? Right...And they don't know of it...except for Respiratory Therapy who had some feelings I think, about having another chairperson sitting in on their classes. (Dean of Allied Health)

...Again, truly, this sounds elementary, but I think it's basically an ignorance by large. I know that's what it was in my case, I just hadn't thought about it. And in a sense all of us chairpersons have been somewhat thrust into our positions...When I described to you earlier, in the fact that the funding did not allow advance hiring, all of us were in that same boat...the staff quota cannot be hired very soon in advance of the time that the students are admitted, so therefore, we've all been kinda' playing catchup for years because we didn't have any advance planning time...so what we would have done a year in advance of students being here, we are slowly accomplishing after the fact...we are so totally caught up in our departments and only now are we beginning to get our heads above water. (Program Chairperson)

COULD YOU ENUMERATE THE EXTERNAL GROUPS WHICH MAY HAVE SIGNIFICANTLY INFLUENCED THE DECISION NOT TO GO AHEAD AND DEVELOP THIS TYPE OF PROGRAM?

...External groups would be, if we're talking about health care, would be those that employ our graduates, such as hospitals...doctors'offices...institutions like the state home...even the smaller physical therapy units that are on their own and operating independently would advise us on what their needs are...so we have regular contact with the health care providers in the community because most of our students are in there at one time or another...that we always have constant dialogue back and forth so anyone of them could articulate a need which we ought to investigate. ANY OTHER SIGNIFICANT EXTERNAL GROUPS? the Board of Regents definitely, our Board of Trustees...accrediting agencies would be another. (President)

...Yes, I think the accrediting agencies would have to change their procedures that they're using because they only look at a single program...with a multicompetency program in terms of receiving
accreditation you would possibly run into problems right now. (Vice President for Instruction)

...There has been nothing externally influenced because the suggestion hasn't come up...not at this point...That could come up in the future. I could see some external groups that have some feelings on this issue...Internally, I feel that there was some feeling as far as Respiratory Therapy was concerned, because they are protective of their profession. There is some concern that other professions are taking over their work, and I got that kind of feeling when we approached it. Which is in a way why I went to the President and the Vice President to make sure that I was on track and told them what I was doing. IF WE CAN BE FUTURISTIC, SAY YOU WANTED TO TRY TO DEVELOP A MULTICOMPETENCY PROGRAM HERE. DO YOU THINK YOU WOULD RUN INTO PROBLEMS IN COMBINING RESPIRATORY AND PHYSICAL THERAPY? I could see as an administrator, I would need to prepare a readiness factor. The response of the Respiratory Therapy faculty has already been, "It wouldn't work. Well, she (Physical Therapy Chairperson) could never do it." When I asked why not, they replied, "She couldn't get the clinicals in. It just wouldn't work; we couldn't use a special person." So, I think there would have to be a lot of upfront planning and strategizing to prepare people for that type of program. DO YOU THINK THAT WILL BE ACHIEVABLE? Yes, but it might take a few years...you know, the Allied health faculty are very linear in their thinking, very sequentially minded...very often you are with people (in allied health areas) who are very closed in, very local, like in their approach. And so you need to work in opening them up to the new ideas and say, "Hey, we can work with this." (Dean of Allied Health)

...there seems to be a lot of turf protection in most allied health fields. That's my basic impression and there are groups of individuals that I have encountered in the past who would never think of the possibility of combining, aligning themselves with another field...CAN YOU BE MORE SPECIFIC? Practitioners in the community...if enough clinicians cannot be found to support this concept, then support for clinical education is certainly going to be difficult. (Program Chairperson)

HOW DID EXTERNALLY DEFINED NEEDS BY PROSPECTIVE OR CURRENT EMPLOYERS AFFECT THE DECISION NOT TO GO AHEAD WITH THE DEVELOPMENT OF A MULTICOMPETENCY PROGRAM?

...We aren't going to develop a program if there's no place where the people can be employed. And that is critical in our viewpoint that there are spots for these people to be employed...whether there is or is not a need, we don't know. There may be a need out there but nobody
told us that there is or has said there really should be (people being trained in multicompetencies). HOW DOES THE COLLEGE ADMINISTRATION BECOME AWARE OF THE NEEDS OR IN THIS CASE THE LACK OF A NEED? Our internal people have not heard anything while out in the community and also a review of the local literature has not indicated this, i.e., reading interviews with local hospital administrators in which they come out and say, "We ought to have blank, blank or that type of person, etc."...National journals...I know a lot of people read national journals, and I don't read the national journals in health care as much as I probably should. (President)

...It hasn't come up, really. It has not been presented that we should be developing this type of program. (Vice President for Instruction)

...There hasn't been any request. I feel though that if we develop this kind of a person, there will be openings in the job market. (Dean of Allied Health)

...Okay, as yet we have not been approached by any of them, for probably the same reason--ignorance. I hate to keep using that term, but that's probably the truth! (Program Chairperson)

IS MARKET INFORMATION OR INFORMATION CONCERNING WHAT THE CONSUMERS OF YOUR PRODUCTS AND SERVICES WANT FROM YOUR INSTITUTION IN REGARDS TO THE NEED FOR ALLIED HEALTH PRACTITIONERS IN THIS SERVICE AREA OBTAINED REGULARLY BY THE DIVISION?

...Yes and no. I think they (Allied Health Chairpersons) are in their areas of expertise, they're really on top of national, regional and local markets in their respective disciplines...they're in tune through their professional associations...our people are in constant contact with the hospitals and they (hospital personnel) will articulate if they're hiring different types of people...Right now, hospitals are very, very reluctant to project any needs even a year in advance...we ask them, someone in their personnel department or on one of our advisory committees and they say, "I'm not even telling you. We don't even know." I haven't had one hospital personnel man or administrator articulate to me at all that there's a need for a multicompetent allied health person. (President)

...Yes, these people are in contact through local advisory committees for each of the technologies...we have what we call "linkage visitations" where we visit some of the local businesses, industries and health agencies. When we have these visits we will invite them to visit the college. Through verbal sharing and discussion...they tell
us what they need, what they're looking for...then we try to meet that need. (Vice President for Instruction)

...There is no standard mechanism at this point...the mechanism I've referred to already was where we have the linkage visits...the visitations give us a sense of community and give the community a sense of what we can do here...they would then approach us when they have a need. (Dean of Allied Health)

...I am not aware of a formal concept...the Dean is a member of the Issue Advisory Committee and through that mechanism, she obtains feedback from the various clinicians in the area. Information is obtained primarily by word of mouth. (Program Chairperson)

HOW DID THE FOLLOWING FACTORS AFFECT THE DECISION NOT TO DEVELOP A MULTICOMPETENCY PROGRAM? A) THE STRUCTURE OF THE DIVISION OR HOW PROGRAMS ARE STRUCTURED ADMINISTRATIVELY B) REWARD SYSTEM FOR DIVISION PERFORMANCE C) CONFLICT RESOLUTION AND COORDINATION MECHANISMS.

A) STRUCTURE: I don't think there's any structure that would prohibit development of a multicompetency program...if there's a demonstrated need then I don't see any reason why we couldn't develop that. (President)

...Well, we really haven't explored it since there hasn't been a need expressed. (Vice President for Instruction)

...I can only speculate how it might impact in future development...I think it's only natural that there should be turf protection and in order for this kind of thing to occur (multicompetency education in allied health), this has to be overcome, so that turfs are widened and boundaries are broken down...I have no idea how it would be contemplated to have a director over a combined program such as Respiratory and Physical Therapy. (Program Chairperson)

B) REWARD SYSTEM: No, not at all. (President)

...We have no reward system per se. (Vice President for Instruction)

...No, no influence. (Dean of Allied Health)

...I would expect it to be true in implementing such a program...it would be a motivator for implementing the program. (Program Chairperson)
C) CONFLICT RESOLUTION AND COORDINATION MECHANISMS: No, it would not. We're small enough that we're able to coordinate very quickly, efficiently if we decide to go in a particular direction...because we are small the conflict resolution mechanisms are easily obtainable...there's not a multi-layer organization where you can't get through the bureaucracy. (President)

...In our situation, our Dean of Allied Health holds regular meetings with the Chairpersons and they readily share information, so coordination would not be a difficulty. (Vice President for Instruction)

...No, because it hasn't come up yet. (Dean of Allied Health)

...Again, you can say currently, it doesn't apply, but it will be something that we will need to work on (if we decide to go with a multicompetency education program). Program Chairperson

MY NEXT QUESTION IS SIMILAR IN THE SENSE THAT I'M LOOKING AT FACTORS THAT COULD EITHER FACILITATE OR NOT FACILITATE THIS TYPE OF DEVELOPMENT. HOW DID THE CURRENT TYPES OF PROGRAMS, THE FACILITIES AND THE INSTRUCTIONAL PERSONNEL INFLUENCE THE DECISION NOT TO DEVELOP AND IMPLEMENT A MULTICOMPETENCY PROGRAM?

...the mechanism is already in place for a generalist type of program...we can use the associate of technical studies program which is basically the person designing their own program to meet their own needs...if we moved into a multicompetency type of program, that would be taking the existing programs and molding the generalist type program together which would not require any more space or any more labs or anything else that we need...the personnel are already available. (President)

...I feel in this case we haven't had that happen. Our Allied Health program is so new that we are just beginning to solidify our individual technologies. Now is the time to start expanding our horizons. (Dean of Allied Health)

OVER THE PAST FIVE TO TEN YEARS HAS THE ALLIED HEALTH DIVISION GROWN MORE THROUGH THE EXTENSION OF CURRENT OR RELATED PRODUCTS OR THROUGH DIVERSIFICATION INTO NEW PRODUCT AREAS?

...I really can't answer totally...We've expanded two programs while the rest are running at capacity...but if we see further growth it will have to be through new program development, either the multicompetency or traditional allied health educational programs. (President)
...We have increased by adding new programs and expanding the numbers in Medical Assisting and Physical Therapy. (Vice President for Instruction)

...We've build up the programs that we have and have added more students to them, so basically we've added new traditional allied health programs and have expanded numbers in a few. (Dean of Allied Health)

DOES THIS COLLEGE DO LONG-RANGE PLANNING? WHAT'S INVOLVED IN THE PROCESS AS FAR AS ALLIED HEALTH IS CONCERNED?

...The process involves the top administration, myself, and the Vice Presidents setting direction and general trends--where we want to be in five years. This provides general goals that we want to work with...Then we take those goals and submit them to the Divisions. They then develop their own objectives for meeting the goals. (President)

...Long range plans start with the President's Cabinet and we seek input from the entire institution. Everybody in the institution has an opportunity to submit goals. Once the goals are defined for the year, we again seek input as to the development of the objectives for the goals. Then the document is fine-tuned, presented to the Cabinet again to make sure that this is what we're talking about. We get final approval from the Board of Trustees. (Vice President for Instruction)
APPENDIX M

Data from Health Technology Division D
RESPONSES FROM HEALTH TECHNOLOGY DIVISION D

WHY HASN'T A MULTICOMPETENCY ALLIED HEALTH EDUCATION PROGRAM BEEN DEVELOPED AT THIS INSTITUTION?

...I think, you know, we feel that we need all of the time for the single competency program, so to speak...all of our programs do prepare for certification for licensure and they do have to meet those, you know, requirements. And to try to incorporate additional competency it may jeopardize that. (Vice President of Instruction)

...let me ask you about the two that are in existence. Are they under CAHEA (Committee on Allied Health Education Accreditation) accreditation? NO. No accreditation? NO. No licensure? No certification....I don't recall any conversation ensuing about looking at such a program....Well, we get a lot of expert advice from our advisory committees. As far as I know, we have not seen or heard from the people practicing in the community (the real practitioners) a need for multicompetent personnel. (Dean of Allied Health)

...It's something, to be quite frank, we've never discussed...we've never discussed it with anyone. I personally have my area and the Chairperson of Surgical Technology has her area. The Chairperson of Dental Hygiene has her area. And in regards to speaking to this at an administrative level, I've never even thought about it. Mostly or probably in my mind I don't see it as always feasible in many cases. (Program Chairperson)

...I guess I can't really speak for the Division because it is not a question that I feel ever came up before the Division as a whole, at least not at a time in which I was present. So, I guess I can only speak for my department. And the reason that I never followed through on it is that number one, in terms of certification, there is not a certifying examination for such an individual and if they were not certified I question the employability of such an individual. Secondly, I think our philosophy here in the Division is to provide the community with the best educated individuals that we can within any one technical area and we have never had any input from our Advisory Committees, for instance, that this is an individual that they would like to see produced. (Program Chairperson)

CAN YOU DESCRIBE THE INTERNAL COLLEGE PROCESS FOR NEW PROGRAM APPROVAL?

...The development and initial idea usually come from the department level. They give suggestions which then go up through the Department and Divisional levels and on up to the President's Council which would decide as to whether or not we should go ahead with the development of the program. (Vice President for Instruction)
...We would first determine, perhaps through the advisory groups, through business and industry representatives, a need for a program. We would probably do a needs assessment. (Dean of Allied Health)

...I know there has to be a community need! Someone from the community has to ask for it. From there a curriculum is developed and preliminary approval from the Ohio Board of Regents is requested. After that, an advisory committee is set up and final approval is requested through the levels of top management, College-Wide Committee, the President and Board of Trustees. (Program Chairperson)

HOW DID THE BOARD OF TRUSTEES, THE PRESIDENT, YOURSELF OR THE DEAN AFFECT THE THRUST OR THE DECISION NOT TO DEVELOP AND IMPLEMENT A MULTICOMPETENCY PROGRAM?

...I guess they never did, because it never came up. We never thought about it. There was no active decision NOT to do this, but there also was no decision to go with it. (Vice President for Instruction)

...I don't think it would have gone through that procedure. Certainly let's say we have some reservations, or if anyone of those individuals had some real reservations about the need for such a program, those would be voiced and heard...COULD THE DEVELOPMENT OF THE PROGRAM BE HALTED IF THERE WAS A SERIOUS OBJECTION WITHIN THE TOP LEVELS OF ADMINISTRATION, SAY BY THE PRESIDENT OR VP FOR INSTRUCTION?...I would assume so...HAVE YOU EVER SEEN THAT HAPPEN HERE? By one individual. It was a consensus. If you would like to do this but we can’t do it right now for a variety of reasons. (Dean of Allied Health)

...Again, as far as I know we haven’t discussed a multicompetency program. (Program Chairperson)

...Again, it’s something I can’t answer because I don’t know that they eliminated the idea but I don’t know if they are investigating it. I just don’t know. (Program Chairperson)

DID THE FACULTY AND OTHER CHAIRPERSONS IN THE HEALTH TECHNOLOGIES DIVISION INFLUENCE THE THRUST NOT TO CONSIDER OR DEVELOP A MULTICOMPETENCY PROGRAM?

...No, they did not have any, because again they didn’t recommend it, but they did not not recommend it, either. (Vice President for Instruction)
...I don't believe so. (Dean of Allied Health)

...Again, we were never asked. I'm sure that, I guess I shouldn't say I'm sure. I feel that there would be strong feelings, maybe from both sides of it. You know it's something that I'm not sure. Personally, I'm not sure I buy it...I would really have to know a lot more about it before I could say that I buy into it. I'm not against it, but I sure wouldn't run out and say I think we should do this until I get to see basically--you said two colleges are doing it--where their grads are going and what's happening to them as far as research down the road can see. You know, I would need those kind of things before I really could make up my mind. (Program Chairperson)

...Nothing that I am aware of. (Program Chairperson)

CAN YOU ENUMERATE UPON THE EXTERNAL GROUPS WHICH MAY HAVE SIGNIFICANTLY INFLUENCED THIS "NEVER-HAVING-BEEN-BROUGHT-UP" TREND OR THE INCLINATION NOT TO DEVELOP A MULTICOMPETENCY EDUCATION PROGRAM?

...No, I don't think so, because there have never been any outside groups that had any impact on it. We never discussed it to get any input from outside groups. We have never had any pressures from outside groups to DO this! (Vice President for Instruction)

...There are none. (Dean of Allied Health)

...it's hard for me to answer since it's something I don't know a lot about...I know we have an overall health technology committee...and even at this committee, I don't ever recall multicomptency coming up. And these are community people. So, I don't hear them asking for it. (Program Chairperson)

...I am not aware of any...HOW ABOUT JUST WITHIN YOUR DEPARTMENT, NOT THE ENTIRE DIVISION? WERE THERE EXTERNAL GROUPS THAT INFLUENCED YOUR DECISION NOT TO GO AHEAD WITH A MULTICOMPENT RADILOGIC TECHNOLOGIST PROGRAM? The fact that there is no, that there are no essentials for an accredited program, and I guess these would come from CAHEA (Committee on Allied Health Education Accreditation). And the fact that there are no certifying exams through the Association for Radiologic Technologists. I really think that these are the two main things. (Program Chairperson)
HOW DID EXTERNALLY DEFINED NEEDS BY PROSPECTIVE OR CURRENT EMPLOYERS AFFECT THE DECISION NOT TO GO AHEAD WITH THE DEVELOPMENT OF A MULTICOMPETENCY PROGRAM?

...No needs were ever brought to our attention. IF THERE WERE ANY, HOW WOULD THE COLLEGE ADMINISTRATION BECOME AWARE OF THESE? Probably through the literature which is primarily brought to our attention through the technical experts at the departmental level, particularly the faculty chairs and of course through our Advisory Committees, which are made up of experts in their respective fields. (Vice President for Instruction)

...Well, I think if what I’ve just said, before we got to this question, the fact that we haven’t heard of a need from them (external agencies), and certainly our programs have expanded by identifying needs, not just reacting to what they say. Being in the clinical agencies at least on a daily basis and actively looking and observing, we haven’t seen any employment of these people, nor have we seen a cry for eliminating shortages of them. WHEN YOU SAY NOT JUST REACTING TO THEM, WHAT DO YOU MEAN? Well, we just don’t sit back and wait, or permit a hospital to say, ‘You guys better start a radiation therapy program.’ We were aware that there would be a tremendous layoff of Licensed Practical Nurses in this area and reacted really before those layoffs happened by saying is there any way we can help the employees....seeing how we can strengthen our own institution and provide what we think will meet a projected need. There is another institution that is just beginning to think about creating an LPN-RN (Licensed Practical Nurse to Registered Nurse) Progression Program. Now that to me is reacting. You know, six months after the fact that there are so many LPN’s out of work, now they think about what to do. (Dean of Allied Health)

...Not to my knowledge...none of the hospitals in this area have requested this. (Program Chairperson)

...I guess I’d have to say yes, because needs did affect this, they (outside groups) never expressed a need. (Program Chairperson)

IS MARKET INFORMATION OR INFORMATION CONCERNING WHAT THE CONSUMERS OF YOUR PRODUCTS AND SERVICES WANT FROM YOUR INSTITUTION IN REGARDS TO THE NEED FOR ALLIED HEALTH PRACTITIONERS IN THIS SERVICE AREA OBTAINED REGULARLY BY THE DIVISION?

...The only time we do that is when we are looking into the development of a new program. Then we do a needs survey. Also, at the Medical College, a very extensive survey was done on the employer needs in
allied health. We have access to that information...it is updated every two years. (Vice President for Instruction)

...Yes, we get that from the advisory committee which is made up of practitioners, physicians, and administrators. The clinical coordinators also give us information concerning the merger of two hospitals or how departments will be divided and who will run the new department...but they also provide us with information on how many people they are planning to hire. (Dean of Allied Health)

...The Medical College surveys employers every five years to determine the needs in various allied health fields, the projected needs, the amount of attrition...that information has been available to us. In an informal sense that information is provided to us through the advisory committees to the programs because individuals on these committees are employed within the service departments in the health provider institutions. (Program Chairperson)

...Usually that comes from the advisory committees...we don’t need as many radiologic technologists, etc. Well, if it is from the advisory committee, twice a year. And then because we have contacts with so many individual administrators of hospitals, I’m sure by word of mouth whenever someone’s feeling either over or under supplied. (Program Chairperson)

OVER THE PAST FIVE TO TEN YEARS HAS THE ALLIED HEALTH DIVISION GROWN MORE THROUGH THE EXTENSION OF CURRENT OR RELATED PRODUCTS OR THROUGH DIVERSIFICATION INTO NEW PRODUCT AREAS?

...It’s grown mostly by expanding existing programs. We’ve increased the numbers in Radiologic Technology, Nursing, Dental Hygiene, Optometric Assisting and in Surgical Technology. We’ve added within Radiologic Technology programs in Ultrasound and Radiation Therapy. (Vice President for Instruction)

...I think I understand. I’d like to answer both. Our nursing program has definitely expanded with the addition of the Evening Program and the LPN Completion Program. SO HAS THERE BEEN ANY DIVERSIFICATION INTO NEW PRODUCTS? Surgical Technology...use RN’s as Surgical Techs and they found out that a person could be trained to be especially skilled for operating room assisting who was not a nurse. Someone who did not have that other broad spectrum of skills and abilities. (Dean of Allied Health)

...The two programs that were expanded in the Radiologic Technologies were Ultrasound and Radiation Therapy. In addition, there was a huge
meeting for nursing personnel and we increased our numbers to meet community needs. And this past summer we started an LPN-RN (Licensed Practical Nurse to Registered Nurse) completion program with the possibility that the LPN would be phased out. Those LPN's can come in with a certain amount of credit and then complete the coursework necessary for their RN. So that's probably a little away from the traditional type of program but it was a community need we addressed. (Program Chairperson)

...In the last eight years, the only new programs that we've developed were Radiation Therapy and Sonography which are really only off-shoots of Radiologic Technology. So I guess the Allied Health Division really has not grown in the past five years. Because we, in essence, have not really established new programs....Well, although, the Nursing Dept. has grown through the addition of an LPN/RN Completion Program...and I guess that would be considered innovative...BUT IN A SENSE YOU ARE STILL PRODUCING AN RN (REGISTERED NURSE)? Yes, that's right. (Program Chairperson)

EVERYONE HAS STATED THAT THE COLLEGE DOES LONG RANGE PLANNING AND THAT NEW PROGRAM DEVELOPMENT IS INCLUDED IN THESE PLANS? WHEN YOU ARE MAKING A DECISION TO INCLUDE SOME TYPE OF PROGRAM DEVELOPMENT IN YOUR PLANS, WHAT TYPE OF INFORMATION DO YOU BASE YOUR DECISION ON?

...input from all facets of the college...from the areas - the Chairpersons, the Deans, the faculty, etc. As you know, they're the ones closest to what's going on in the fields. If someone suggests developing a multicompetency program we automatically would not add it to the list. They would have to document why they felt this was necessary. And a lot of the documentation would come from the literature and from local perception of needs. We have people who are very influential in the community and who would be hiring a lot of these kinds of workers. They would be contacting us and then we usually develop an Advisory Committee and then make the decision...We start with a committee to explore whether it's feasible to start the program. (Vice President for Instruction)

...There has been some involvement of new program development, but I believe that it has been decided not to go with the new programs that were being initiated or that were being discussed. (Program Chairperson)

...Personally, when I came to this college, like I said we were singularly Optometric. As I saw the community need (our graduates going to work for Opthamologists and having to be retrained in areas), I made it my goal to expand the curriculum to have enough
Opthalmological content in this program to go after the Ophthalmic Medical Assistant accreditation. **HOW DID YOU FIND OUT THAT THESE GRADUATES WERE BEING RETRAINED?** I surveyed them and asked them what are you doing that we did not teach you to do. I also surveyed the employers and asked them what they wished our graduates knew. **DO YOU KNOW IF THE DEVISION HAS DONE ANYTHING GLOBALLY LIKE THAT WITH HOSPITAL PERSONNEL DEPARTMENTS OR PHYSICIANS OFFICES?** That would come from the Dean’s office...as far as I know, I don’t know if it happens. (Program Chairperson)
APPENDIX N

Questionnaire used by Panel
to Type Health Technology Divisions
STRA TEGIC TYPE IDENTIFICATION

Given the preceding set of responses from administrators of Allied Health Division __, would you characterize that Division as a:

(PLEASE CHECK ONLY ONE TYPE)

__ DEFENDER

__ ANALYZER

__ PROSPECTOR

__ REACTOR

__ CANNOT BE CLASSIFIED (Please explain.)

COMMENTS:

PLEASE DETACH AND RETURN THIS PAGE IN THE ENVELOPE PROVIDED. THANK YOU!
LIST OF REFERENCES


1983 Environmental Assessment. Miami Valley Hospital Administration. Dayton, Ohio, Miami Valley Hospital, 1983.


