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USING ORGANIZATIONAL ETHNOGRAPHY TO STUDY ACADEMIC WORKSITES: A CASE STUDY OF HEALTH PROMOTION AS INNOVATION

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USING ORGANIZATIONAL ETHNOGRAPHY TO STUDY ACADEMIC WORKSITES: A CASE STUDY OF HEALTH PROMOTION AS INNOVATION

By

Carl Albert Gibson

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ABSTRACT

USING ORGANIZATIONAL ETHNOGRAPHY TO STUDY
ACADEMIC WORKSITES: A CASE STUDY OF
HEALTH PROMOTIONS AS INNOVATIONS

By

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The three primary interest groups that are interlocked in the process of promoting health at the worksite--employers, employees, and providers--are each expected to benefit from the introduction of health promotion activities into the worksite. Increasingly, health promotion is being understood as a complex innovation to worksites that traditionally are not oriented toward its goals.

The worksite organization serves as a natural setting and supportive environment--cultural "context"-- for health promotion services. But, irrespective of how one approaches the study of organizations and innovation, the variable of culture is not well understood nor is it utilized with much rigor. As a potential "regularizer" of behavior and "gatekeeper" for change, there is a need to explicate its functions and processes in worksite organizations, because a limited understanding of organizational culture can have a deleterious impact on the introduction of health promotion programs into the worksite.

The purpose of the study is to: 1) determine the cultural system and potential sub-cultures present in worksite environments; and 2) identify cultural factors that specifically influence the adoption and integration of health promotion as an innovation.

This case study uses an organization ethnography approach to understand a single academic worksite culture. The research builds on three investigative modes of inquiry: member interviews, participant observation techniques, and a review of documents.

The department is found to resemble a "localite" culture in orientation and values. Other significant findings include: 1) the academic unit, rather than having an integrated identity, must perpetuate its multiple-focused, commodity-based diversity; 2) the traditional employee groupings of faculty, graduate students, and clerical staff hold sway over individual ability to participate in health promotion programs; and 3) while health promotion is accepted as a beneficial role of the department, lack of commitment and resources preclude its becoming a high priority.

Policy implications for the university include budget re-allocations so that departments and employees have a personal and financial incentive to adopt health promotion programs.

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Writing a dissertation has long been noted as a solitary and personally demanding endeavor. It requires dedication, copious time, and willingness to forsake other pleasures in its stead. At the same time, the process requires a supporting cast of players who wait in the wings while the production draws to its finale. It is here that I wish to acknowledge a number of people who have guided, nurtured, and supported me to the end.

Without a doubt, Frank Fear Ph.D. has had the single most impact on my "sticking with the program." As a mentor, humorist, and personal friend, he has played the role of guiding spirit and "facilitator" for my program and dissertation. He has allowed my complete self-expression, sometimes to his utter dismay.

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God speed!

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CHAPTER ONE

ORGANIZATIONAL VARIABLES IN ORGANIZATIONAL CHANGE

Introduction

The need for change within an organization often conflicts with its desire for stability. "In general, (organizations) constantly seek better ways to maintain continuity and control because they are established, in the first place, to reinforce certain ways of doing things" (Pascarella & Frohman, 1989, p. 1).

The importance that organizational culture plays in an organization's desire and ability to change are not well understood. Culture represents its world view and affects how it identifies and manages the changing conditions within its environment. Furthermore, an organization's effectiveness is said to depend upon how it relates to and manages those changing conditions in its environment (French & Bell, 1984). The conditions, depending upon its view, are seen as opportunities or constraints by the organization.

One particular change being introduced into many organizations today is health promotion. While there have been a number of failures and successes, health promotion is becoming widely accepted as a significant means to bring about improvement in peoples' health status and overall well-being (Ardell, 1985; Klarreich, 1987; Glasgow & Terborg, 1988; O'Donnell & Ainsworth, 1984; Opatz, 1987; Terborg, 1986; Zimmerman & Connor, 1989). More than simply distributing information and

providing educational programs, it is a concerted action to bring about change in individuals (Saan, 1986) and the organization of which they are a part.

Health promotion "involves the transfer of new knowledge, ideas, practices, and products or services . . ." (Orlandi, 1987, p. 122) from the program provider (resource system) to those who benefit (user system). As a change process, health promotion has become a complex phenomenon that utilizes a number of transformation steps and requires a set of implementation skills (Orlandi, 1987). This process is further challenged when health promotion is introduced into worksite settings (Orlandi, 1986). A host of organizational factors come into play when implementing worksite health promotion (e.g., leadership, values, and experience with change) which often require changes in the organization, including what it values and how it operates (Falkenberg, 1987; O'Donnell & Ainsworth, 1984; Shain, Suurvali & Boutilier, 1986; Sloan, 1987; Wolfe, Ulrich, & Parker, 1987).

An important question being asked is: What unconscious and ill-defined aspects of the organization are overlooked or assumed, but still play a major and unexpected consideration in the success or failure of health promotion in a worksite? (Allen & Kraft, 1982). Experience and the literature tell us that there are values and belief systems (i.e., cultures which are identified with organizations and the members themselves) that may not be well understood, but should be considered in terms of the organization's receptivity to innovations and ability to change (Deal & Kennedy, 1982; Schein, 1985). Mintzberg (1983b) refers to organizational "ideology," but that is less widely used--a term that has its own cultural connotations (Schein, 1985). Nevertheless, the main point is that, without a well thought out and fully defined view of the worksite as a culturally-based system, the proponents of health promotion are limited in knowing whether the

organization's culture(s) can and will integrate the innovation. And, further, it seems that the organization's potential to be a supportive actor in the health promotion process is restricted.

Other authors have highlighted the importance of organizational cultures that are strongly people-oriented (Peters & Waterman, 1982; Santa-Barbara, 1987). Santa-Barbara (1987) goes on to state: "A value system that respects the individual is perhaps the single most important element of a successful corporate health education program" (p. 39). Wishko (1986) indicates that a supportive culture is vital to the success of worksite health promotion efforts.

As a result of the apparent cultural importance to health promotion, it is important that alternatives be explored or developed to the traditional "pro-innovation" bias in organizational change programs, include worksite health promotion, that presume that individuals and organizations will benefit from **any** innovation (Cummings & Morhman, 1987; Orlandi, 1986; Rogers, 1983).

Purpose of the Study

Understanding the role of culture is crucial to identifying organizational factors that promote or inhibit adoption of any innovation or organizational change. It is particularly relevant to compare differences between potentially heterogenous sub-cultures contained within a presumed larger homogenous culture. The purpose of this study is to gain a better understanding of the role of culture in organizational change. It is designed to help gain an understanding of how worksite health promotion, as an

organizational change or innovation, is affected by cultural variables in an organizational setting.

Statement of the Problem

Irrespective of how one approaches the study of organizations and innovation, the variable of culture is not well understood nor is it utilized yet with much rigor. As a potential "regularizer" of behavior and "gatekeeper" for change, there is a **need to explicate its function and processes in worksite organizations, because a limited understanding of organizational culture can have a deleterious impact on the introduction of health promotion programs into the worksite.**

Importance of the Study

The introduction of new technologies and processes into an organization sends a signal to its members of the desire to change one or more of its "regularities" (Sanchez, 1987). It is the gathering of these regularities that defines what to do and how to behave in the organization. And it is the relationship of the innovation's goals and characteristics with the organizational culture(s)--some are congruent and some conflict--that will determine whether it is successfully adopted.

The study of culture is a non-traditional approach to organizations. A better understanding of organizational culture transfers a measure of strategic control to the health provider system. For those individuals engaged in introducing health promotion, the ability to better decipher and understand the cultural nature of the worksite and its

viability for innovativeness will lead to more effective implementation and adoption processes (Orlandi, 1986).

While health related literature has tended to focus on individual health risks and behavior changes, management literature is just starting to recognize significant relationships between organizations and specific health problems (Ivancevich & Matteson, 1980; Matteson & Ivancevich, 1987; Wolfe et al., 1987). From that, it is critical to understand the differences between and within organizations--their cultural systems--that integrate the organizational systems and link them to the external environment.

Through a case study of the introduction of worksite health promotion in a university setting, it is hoped that a better understanding of organizational culture's influence on organizational change can be gained. Results will be valuable for designing change programs in complex organizations, such as universities, as well as other such complex decentralized organizations with distinct cultures within their structures.

Contexts for Worksite Culture

The concepts of organizational culture and cultural environment provide a framework to analyze organizations and their world views. Organizations operate with their own definable culture within larger cultural environments. Furthermore, organizations, as cultures, may contain sub-cultures or counter-cultures within them (Harvey & Brown, 1988; Huse & Cummings, 1985; Schein, 1985; Smirich, 1983).

From the typical view, one can start with top management or any cross-section of the organization to start digging for "culture"--at least this represents much of the

thinking that goes into "corporate culture" (Louis, 1985). But for this study, which focuses on a university environment, it becomes critical to understand how organizational cultures and possible sub-cultures manifest themselves in distinct subsets of the organization. More than providing useful information to the change agent, it is imperative to identify the nature of the culture and sub-cultures, and to understand the loci around which possible sub-cultures form and the boundaries in which they operate. From that understanding, one can then possibly identify those sub-cultures that may be more open to health promotion and can serve to "pave the way" for introducing the innovation to others, as well as make adaptations in the health promotion innovation so that it better fits the cultures to which it is being introduced.

In contrast to traditional bureaucratic organizations, Baldridge and Deal (1983) and Bess (1982) have argued that universities are unique in their structure and decision-making strategies. Bess (1988) indicates that their uniqueness is also a rational response to the types of organizational decisions they must make. Furthermore, it is often in respect to their culture and collegiality that the decision processes are enacted. As an innovation, health promotion may require a dynamic thrust to penetrate the cultural boundaries that define university organizations.

Louis (1980) and Schein (1984, 1985) characterize a group's culture as consisting of shared meanings that are clearly relevant and distinct to the group and that are passed on to new members. In that definition, Louis (1985) identifies three components: 1) **content**: the commonly understood meanings and patterns that are passed on; 2) **a context**: the social unit of concern such as organization, community or group; and 3) **relationship** between the content and the social unit (i.e., content characteristic of the organization and differing it from others). Authors, such as Schein

(1985) and Martin (1982), have focused more on the content, while Louis addresses the second and third components. In tandem with his ideas, this section will suggest those alternative sites at which culture may emerge within organizational settings--what Louis (1985) calls **establishing the perimeter of experiential boundaries**.

Louis (1985) indicates that the model often used in anthropological research for identifying the cultural content is insufficient for organizational research. Because traditional societies were often in geographical isolation, a study of the content was usually coterminous with the boundary of the culture. In contrast, to find content in organizational settings does not mean one has a grasp of the cultural boundaries. The possibility of nested cultures within each other (Frost, Moore, Louis, Lundberg & Martin, 1985; Louis, 1983), and multiple cultures or sub-cultures (Rose, 1988; Smirich, 1983; Schein, 1985) requires a different method of defining the boundaries.

Some authors (Harvey & Brown, 1988; Huse & Cummings, 1985) indicate that every organization has a culture. Others (Schein, 1984, 1985; Louis, 1985) suggest that may not be the case. First, there must be a level of history and continuity, structured interdependence and shared interests, and common assumptions. The need, then, is to determine the sites of culture--organizational loci of culture--that may be at harmony or disharmony in the organization. The framework of Van Maanen and Barley (1985) is useful for searching organization-wide cultures, and that of Louis (1985) serves to identify potential sub-cultures. Again, the author's assumption is that each organization has a culture. Its similarity, to and uniqueness from, the larger environment will change over time, as it learns to differentiate what is important to it.

In the organizational literature, limited attention has been given to organizational culture--the least tangible and most misunderstood element. This is not to say that

there is a spate of material on organizational culture. Rather, much of it is directed toward a superficial and misleading view that cultures can be easily diagnosed, understood, and manipulated (Peterson & Waterman, 1982; Thomas, 1985). There is consistency, though, in the message that culture: is **elusive** (Huse & Cummings, 1985; Thomas, 1985); is **learned** (Huse & Cummings, 1985; Schein, 1985; Thomas, 1985); **may be out of date** (Huse & Cummings, 1985; Thomas, 1985); and can be a **key to understanding resistance to change** in the organization (Harvey & Brown, 1988; Huse & Cummings, 1985; Thomas, 1985).

Health Promotion as Innovation

Health promotion is an increasingly important innovation confronting many organizations, both in the public and private sectors (Bulow-Huibe & Monsky, 1987; Terborg, 1986; Shain et al., 1986). It is partly a result of changing lifestyles and expectations about the workplace by employees. It also includes a legitimate concern of employers wanting to manage costs and improve the capability of their human resources. And, in some cases, it may be a management "gimmick" to stimulate productivity and cut health-care costs (Kizer, 1987; Naisbitt & Aburdene, 1985). As a recent innovation, health promotion is alternatively seen as something new and exciting, as well as potentially threatening (Orlandi, 1986; Steckler & Goodman, 1989).

It is most noted that, in the private sector, business and industry are capitalizing upon the increasing awareness by health professionals of the relationship of diet and lifestyles to health (Cataldo & Coates, 1986; Saan, 1986; Terborg, 1986). The health promotion focus is upon better and expanded methodologies of education for greater impact--prevention by teaching, modeling, and supporting new health habits. At a basic

level, health promotion is generally thought of as a set of educational interventions to promote health and behavior changes. It has been characterized by O'Donnell and Ainsworth (1984) as a range of programs intended to impact the long-term health status of participants by changing their long-term life-style practices. O'Donnell (1987) defines health promotion as "the science and art of helping people change their lifestyle to move toward a state of optimal health" (p. 1).

The health promotion "banner" is also being taken up as a major new thrust by traditional medically-based organizations, and it is often used to broaden the services of illness-based health-care settings (Bernton, 1987; Riedel, 1987). One author contends that medical settings are the most appropriate setting for such prevention efforts because it allows the primary control of the activity to remain with the health practitioners (Orlandi, 1987). As an outgrowth of this interest by health professionals, the list of providers has grown to include "hospitals, health maintenance organizations, insurance companies, non-profit agencies and commercial vendors [that] are now offering programs" (Mullen, 1988, p. 309). Social workers are also trying to capture it as one tool to create change in workplace settings (Gould & Smith, 1988; Jenkins, 1988).

But what is most interesting and challenging is the strong move by health providers to introduce health promotion into worksite organizations. While the organizational impacts tend to be of secondary consequence to the health providers (at least from their professional and cultural perspective), health promotion serves as a **preventive approach** that utilizes the worksite setting to promote employee health-related behavior changes (Matteson & Ivancevich, 1988). At the same time, it is of primary consequence to worksite managers; health promotion encapsulates a major

intervention into workplaces whose primary objectives are not related to health (Glasgow & Terborg, 1988; Orlandi, 1986).

As an innovation, health promotion must compete for the attention, resources, and commitment of managers whose primary focus is directed elsewhere (Naisbitt & Aburdene, 1985). In order to survive, health promotion must prove itself credible and must be compatible with the organization (Steckler & Goodman, 1989); and its benefits must also outweigh its perceived costs (O'Donnell & Ainsworth, 1984). As an innovation, each health promotion intervention must design and build its own degree-of-fit within the organizational setting (Orlandi, 1986).

The bulk of organization research on innovation and change has been directed at corporate and industrial settings (Sanchez, 1987). This is also true for health promotion in organizations (Terborg, 1986; Wolfe et al., 1987). There is much less known about health promotion and other innovations in professional bureaucratic organizations and, particularly, in university organizations. By their very nature, universities are expected to be conceptual leaders in technological development and innovation; however, they tend to operate with the same ongoing structures, processes, and patterns as in the past (Baldridge & Deal, 1983). It will be important, for one facet of the study, to understand the cultural facilitators and blocks to health promotion innovation within university systems.

From this discussion, it is plausible to hypothesize that **the cultural environment housed within unique academic disciplines (i.e., academic departments) presents a gateway to health promotion innovation and change within individual academic units.** It becomes critical to identify and understand the cultural-based systems of a worksite organization. Huse and Cummings (1985) and Mitroff and Kilmann (1984) are explicit

in noting that, although an existing organization culture may have served as a source of strength through the years, it can also become a major liability in successfully implementing new innovations. As they indicate, this is more true if the innovation violates employee basic values and beliefs about their roles in the organization and the traditions underlying the organization's culture.

The organizational culture has been described as an actor in the adoption process (Rogers, 1983), yet it does not stand alone. How it perceives the innovation is also important and needs to be reviewed in this study.

Overview of the Study

Chapter Two describes the concept of organizational culture as it developed recently out of general organization theory. Organizations are described as cultural-based social units that originate and change at critical periods in their life. The process of adoption of innovations by individuals and its relationship to organizational change is reviewed. Organizational culture is introduced as a variable that affects the introduction of innovations, such as health promotion.

Chapter Three introduces health promotion as a recent and major activity in many worksite organizations. The organization is a critical factor in the long-term success of health promotion interventions, but in many cases the short-term focus is upon individual health behavior changes. A variety of intervention models are introduced that can facilitate the adoption of health promotion activities within worksites. Their relationship to the adoption of health promotion innovations are presented.

Chapter Four details the research questions and the methodology for answering them. Ethnography, and its reliance on participant observation techniques, provides the basis for studying a university worksite culture, and sub-cultures, and their impact on implementing health promotion innovations. The chapter describes the data analysis procedures, outlines the parameters of the research, and provides the definition of terms used throughout the study.

Research findings are presented in Chapter Five. The findings are discussed in three parts as they relate to the specific research questions. The purpose is to define and understand the primary culture and sub-cultures of the academic department and further identify how it affects the adoption of health promotion innovations.

Chapter Six, the final chapter, begins with a summary of the study and the findings. Conclusions regarding the extent which one needs to understand organizational cultures before introducing health promotion is discussed. Implications for health promotion providers and University administrators are introduced here. The last section describes the limitations of the study and provides recommendation for future research.

CHAPTER TWO

ORGANIZATIONS AS CULTURAL SYSTEMS

Overview

Over time, organizations have taken on new roles and meanings and they are described in different ways. For this study, there is a need to understand "organizations" and organizational "culture" as a prerequisite for dealing with how culture affects the introduction of innovations (simple or complex) into organizations. As stated in the previous chapter, this research effort is directed at identifying cultural factors that affect the adoption and diffusion of innovations, such as health promotion in academic worksites.

This chapter will focus on "culture" as a way of thinking about organizations, with emphasis on one particular manifestation--**worksite culture**. The first section will review the background of organizational theories as they progress to the development of organizational culture theory. The next section focuses on the development and study of culture, which leads to understanding organizations as cultures. Next, how culture affects the organization's ability to change is discussed. The last major section outlines the study of the diffusion of innovations at both the individual and organizational level. It is this dimension that needs clarification to better implement the adoption and diffusion of health promotion innovations.

Background to Organizational Theories

The study of organizations, as cultural-based systems, follows upon five major sets of organizational theories: Classical, Neoclassical, "Modern" Structural, Systems and Contingency, and Power and Politics (Shafritz & Ott, 1987).

Each one of these major traditions has had its "day in the sun". They are reviewed chronologically as to their rise, maturation, and replacement by theories introduced by other proponents. The historical framework provided by Shafritz and Ott (1987) is used to review their major elements. These authors remark that consensus in organization theory is a small commodity. Bolman and Deal (1984) comment that, as a number of major schools of organizational thought have evolved, each constructs its own view of organizations, concepts and assumptions, and ideas about how managers can best manage organizations.

Classical Organization Theory

The first theory, classical organization theory, is the base upon which other traditions are built. There is no real beginning point to it, but it is rooted in the industrial revolution of the 1700s, and it was dominant into the 1930s. Its basic tenets, according to Shafritz and Ott (1987), emphasize that: 1) organizations exist to meet production and economic goals; 2) scientific inquiry is the means to find the best way to organize for production; 3) specialization and division of labor lead to production efficiency; and 4) people and organizations are rational beings guided by economic principles. Frederick W. Taylor and his The Principles of Scientific Management (1911) were most clearly identified with propounding the one best way to operate, manage,

and reach production efficiency. This period represented the beginning of using scientific principles to plan and operate industrial organizations.

Neoclassical Theory

The neoclassical period built upon existing theory and did not fully replace it. If anything, it was more of a modification based upon new findings in the behavioral sciences. Strongest in the 1940s and 1950s, it challenged the over simplistic and mechanistic principles current at the time. A major theme was to understand organizations not as isolated systems, but as connected to their larger environments (Shafritz & Ott, 1987). This tradition, heavily influenced by sociology, was pioneered by prominent writers, such as Talcott Parsons (1956), who described organizations as social systems focused on goal attainment. March and Simon (1958) are noted for a thorough critique of this tradition.

"Modern" Structural Theory

The neoclassical school broke the hold of the classical school and opened the way for others that followed, such as the "modern" structural tradition. As Shafritz and Ott (1987) denote, "modern" is used to distinguish this from classical theories, which also focused on organizational structures.

This theory set uses structural differentiation--vertical hierarchy and horizontal coordination--as the basis for understanding organizations. Organizational efficiency reigns supreme, but it is influenced by neoclassic behavioral and systems thinking. Its primary tenets, as outlined by Bolman and Deal (1984), are that: 1) organizations are rational institutions guided by control and coordination systems; 2) there is a best

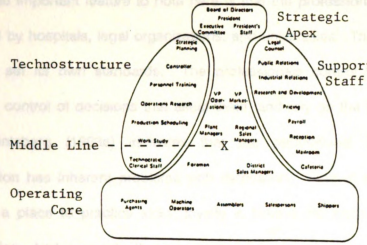
or most appropriate structure for any organization; 3) production efficiency is promoted by specialization and the division of labor; and 4) most organizational problems can be solved by changing structural flaws. Again, this theory does not promote a one-best-structure for all organizations, but posits that needs for specialization, span of control, divisionalization, and coordination are influenced by economic and environmental conditions surrounding the organization. Etzioni (1961), Lawrence and Lorsch (1969), and Mintzberg (1979) were noted writers during the period that came after World War II and stretched into the 1970s.

Differences In Organization Structures. Mintzberg (1983a) has described the structural components that serve as coordinating mechanisms within organizations:

> Five coordinating mechanisms seem to explain the fundamental ways in which organizations coordinate their work: mutual adjustment, direct supervision, standardization of work processes, standardization of work outputs, and standardization of worker skills. These should be considered the most basic elements of structure, the glue that holds organizations together (p. 4).

It is in the subsequent combination and emphasis of these components that a variety of organizational designs become apparent. Mintzberg (1979, 1983a) outlined five major structural configurations that result: 1) simple structure; 2) machine bureaucracy; 3) professional bureaucracy; 4) divisionalized form; and 5) adhocracy.

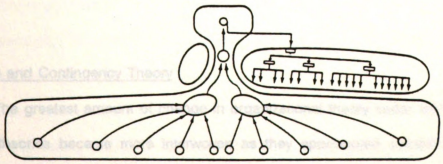
The machine bureaucracy type, "based on standardization of work processes, in which the technostructure is the key part" (Mintzberg, 1983a, p. 23), represents a traditional bureaucratic organization structure--the hierarchical model of organization charts (see Figure 1). In contrast, the professional bureaucracy, "based on standardization of skills, in which the operating core is the key part" (Mintzberg, 1983a, p. 23), represents the typical university organization structure characterized in this study (see Figure 2).



(Example of Machine Bureaucracy)

Figure 1: Bureaucratic Structure

(Mintzberg, 1983a, p. 18)



(Example of Professional Bureaucracy with Elongated Operating Core)

Figure 2: Professional Structure

(Mintzberg, 1983a, p. 198)

The important feature to note here is that the **professional bureaucracy** design is typified by hospitals, legal organizations, and universities. This type of organization tends to set its own standards. The professionals control their own work, seek collective control of decisions that affect them, and rely on the power of expertise.

Mintzberg (1983a) indicates that the professional bureaucracy type of organization has inherent problems with innovation. First of all, the organization is primarily a place to practice skills; loyalty is toward the profession and less to the organization. And, secondly, that type of structure is "well suited to producing standard outputs but not well suited to adapting to the production of new ones" (p. 209). What comes with it is a reluctance to work cooperatively, which leads to problems of innovation. The implications for health promotion innovation are dramatic for those aspects that require cooperative effort, group support, and organizational change. And it is change at this aggregate level of the organization, according to Hersey and Blanchard (1982), that involves change in its customs, mores, and traditions (i.e., its culture).

Systems and Contingency Theory

The greatest amount of change in organizational theory came after World War II, and theories became more interwoven as they approached current times. The systems and contingency school--developed out of mathematical and statistical modeling techniques in the 1950s--peaked at the end of the 1960s, but still has major proponents to this day. It is Katz and Kahn (1966) and Thompson (1967) who are credited with putting this theory into the mainstream--introducing the "open systems" concept.

The systems school reinforces thinking of organizations as interconnected elements, each imposing on the others when change is introduced at any point. The organization is viewed as a "complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, feedback loops, and the environment in which it operates" (Shafritz & Ott, 1987, p. 234). Enamored of finding "optimal solutions" through scientific analysis, the systems school relies on computers and simulation models for its analytical tools. It grew in perspective as it included the "social systems" and the earlier "management systems" aspects.

Contingency theory (Kast & Rosenzweig, 1972) is an addendum to the systems perspective, and emphasizes that the effectiveness of an organizational action is dependent upon its relationship to all other aspects of the system. Surety of action is contingent upon the stability of the environment and the amount of information available for decision making (Shafritz & Ott, 1987).

The "open systems" view holds that organizations exist in a dynamic interrelationship within their environments and their subsystems (Albrecht, 1983): "interdependence or interaction of components or parts and an identifiable whole or gestalt" (French and Bell, 1984, p. 54).

The systems of the organization that are most noted (Dyer & Dyer, 1986) include: the **social**--people in different positions interacting with each other; the **technical**--its methods for getting work done; and the **administrative**--formalized procedures (rules and regulations) that influence what happens in the other two systems. Dyer and Dyer (1986), note that some authors include **culture** as another organizational system.

Kilmann (1984, 1989) urges an integrative approach in reviewing organizational situations. He uses a foundation of "five tracks"--culture, management skills, team-building, strategy-structure, and reward systems--to systematically view them and provide a coherent change effort that is supported by all aspects of the organization.

Power and Politics Theory

The last major set of organization theories that needs describing, before delving into organizational culture, is the power and politics school. In contrast to the "modern" structural and the systems schools, which submit that organizations are rational entities intent on achieving their goals, the power and politics school views goals as resulting from bargaining and exchange among individuals and from shifting power balances. These individuals and coalitions are motivated by their self-interests, beliefs, values, and perspectives. The wielding of influence, and the inevitable conflicts, is key to acquiring scarce organizational resources. In this respect, formal authority is just one of many sources of power in the organization. Some of these other sources of power include control over resources such as space, funds, information, and access to those people who can get things done. The definition of power used by Shafritz and Ott (1987) use "the ability to get things done the way one wants them done...the latent ability to influence people," (p. 306)--is blended from others (Salancik & Pfeffer, 1977; Allen & Porter, 1983).

The power and politics school of theory, from the 1960s and 1970s, had prominent writers (Kanter, 1979; Mintzberg, 1983b). It was Mintzberg (1983b) who outlined two major influence coalitions--external and internal sets of stakeholders--that need brief mention. The **external** sources of influence are the: 1) owners; 2) suppliers

and competitors; 3) employee associations, exemplified by labor unions and professional associations; 4) the public at large; and 5) board of directors. The **internal** coalition is made up of the: 1) chief executive officer; 2) organization producers or operators; 3) line managers; 4) staff analysts; 5) support staff; and 6) organizational ideology.

It is the ideology of the organization, "the set of beliefs shared by its internal influences that distinguish it from other organizations" (Mintzberg, 1983b), that overlaps into organizational culture theory (Shafritz & Ott, 1987)--our next focus.

Organizational Culture Theory

Organizations, in this recent and most controversial perspective, **are part of** and **reflect** the society and cultural environment in which they exist. Shafritz and Ott (1987) indicate that the culture school does not believe that quantitative, experimental type "scientific" research is appropriate for studying organizations. Van Maanen, Dabbs, and Faulkner (1982) state that these traditional approaches have produced little useful knowledge. Culture is the search for the intangibles--values, beliefs, assumptions, perceptions, patterns of behavioral norms, and artifacts--as a source of social energy that moves people to act in ways appropriate to their setting. Culture provides meaning to the seemingly irrational and unknown aspects to behaviors in organizations (Mitroff & Kilmann, 1984; Schein, 1985). Culture is the unseen and unobservable force behind what is seen and observed (Harvey & Brown, 1988; Mitroff & Kilmann, 1984; Shafritz & Ott, 1987). Kilmann et al. (1985) note that:

> The organization itself has an invisible quality--a certain style, a character, a way of doing things--that may be more powerful than the dictates of any one person or any formal system. To understand the soul of the organization

> requires that we travel below the charts, rule books, machines, and buildings into the underground world of [organizational] cultures (p. 63).

It is useful to draw out the tenets of other schools of organization theory in order to better understand organizational culture. According to Shafritz and Ott (1987), the "modern" structural and systems schools view organizations as: 1) purposive in meeting established goals; 2) focusing on how to best design and manage to achieve their goals efficiently and effective; and 3) restraining individual actions by formal rules, hierarchical authority, and norms of rational behavior. It is thought that understanding the structure, information systems, strategic planning process, markets, and goals gives a necessary but not sufficient description of clues about the organizational culture.

In a contrasting vein, the organizational culture school posits that: 1) organizational behavior and decisions are established by the patterns and basic assumptions of the organization; 2) the patterns and basic assumptions drop out of consciousness with repeated use, but continue their influence as truths no one remembers; 3) culture represents the underlying basis for the way things are done in the organization, even when it is no longer useful to the situation; and 4) personal interactions are influenced by cultural norms, values, beliefs, and assumptions (Shafritz & Ott, 1987).

Every organizational culture is deemed unique for a number of reasons: 1) the basic assumptions that work repeatedly for one organization do not work for others; 2) cultures are only partially shaped by other forces: societal culture, technologies, markets, competitions, and the founder(s) or dominant leadership personality; and 3) some are more distinctive than others due to **strength**, **homogeneity**, and **pervasiveness** (Louis, 1985; Shafritz & Ott, 1987). This last set of reasons will be discussed in later sections.

Culture in Organizations

The concept of culture arose as much from the development of methods to study it as it did from a conceptual understanding by itself. Both anthropology and sociology have devised methods for studying and understanding cultural-based systems that will be discussed in Chapter Four.

Anthropology has had its primary focus on rather isolated communities separate and distinct from the social system of the researcher. The emphasis of field research is directed at understanding the cultural codes or rules that specify whatever one has to know to publicly operate successfully in that civilization (Emerson, 1983). Sociology, on the other hand, attaches culture as one manifestation of a social unit--as one of many ways to view and understand a community or organization. As a discipline, sociology's main focus has remained primarily on social units that are indigenous to the investigator's own culture system. (Glaser & Strauss, 1967; Manning, 1979; Whyte, 1984.)

Culture Defined

There is no single definition of culture that satisfies all perspectives. Kroeber and Kluckhohn (1952) are noted for their array of 164 definitions of culture. In a well known introduction to anthropology, Clyde Kluckhon's Mirrors of Man synthesizes these definitions of culture:

> (1) the "total way of life of a people"; (2) "the social legacy the individual acquires from his group"; (3) "a way of thinking, feeling, and believing"; (4) "an abstraction from behavior"; (5) a theory on the part of the anthropologist about the way in which a group of people in fact behave; (6) a "storehouse of pooled knowledge"; (7) "a set of standardized orientations to recurrent problems"; (8) "learned behavior"; (9) a mechanism for the normative regulation of behavior";

(10) "a set of techniques for adjusting both to the external environment and to other men"; (11) "a precipitate of history"; [and (12) similes, such as a map, a sieve, and a matrix] (Geertz, 1983, p. 38).

Geertz (1983), in paraphrasing Weber's "webs of significance" and by shying away from trying to tie all the facets of culture into a meta-concept, views culture as those webs of significance that man has spun for himself. For the purposes of this study, the definition by Goodenough (1971) will be used: **culture** "consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members" (p. 14). Both the cultural anthropologist, in "going to the field," and the sociologist, in analyzing his/her own community, try to capture the cultural **doings** and **sayings** of people as methods of grasping what is acceptable (Frake, 1983).

It is the intent to build on Kroeber and Kluckhohn's (1952) composite expression of culture that is pertinent to this study. To them, culture is seen as value-laden patterns drawn from tradition that are transmitted to others, and which "may on the one hand be considered as products of action, on the other as conditioning elements of further action" (Kroeber & Kluckhohn, 1952, p. 181). Their same view, confirmed by Pettigrew (1979) and Schein (1985), is held here that **cultures are derived from humans interacting over time and developing distinct patterns of behavior that then influence how others act within that system.**

Boon (1973) outlines a synthesis of the culture concepts through the years. First, he indicates that "culture" assumes some orderly significance in all human phenomena. This includes the trivial actions, as well as the most obtuse and grandiose phenomena. The second point is that the idea of "culture" has had a history that can be traced back to E. B. Tylor in 1871. Next, Boon indicates that the concept is tied to diverse "philosophical and scientific schools and tendencies". For example, these

include French intellectualism, British empiricism, German idealism, and American pragmatism. And the fourth point Boon makes is that the culture concept has developed along two major lines: 1) **culture as but one of many analytical tools to use**, and 2) **culture as the totality**. In the first domain, Boon highlights Talcott Parson's view that culture is a part of the analytic framework: "biology" for the organism-requisite pattern, "psychology" as the individual-needs pattern, "society" as the institutional-needs pattern, and "culture" as the values pattern. Complete analysis includes all of these spectrums. The other viewpoint is that exemplified by Claude Levi-Strauss, which posits that culture is that peculiar, orderly pattern endemic to all human phenomena (Boon, 1973). Therefore, culture can be both one of many constructs by which to look at facets of the system, and it can also be a framework to look at the totality of the system (Dyer & Dyer, 1986). The latter (framework) often uses the former (constructs) as a means to express its values throughout. This dichotomous and, yet, confluent view tends to hold throughout the literature dealing with organizational culture, and it will be dealt with further.

"Culture" as Applied to Levels of Social Units

According to Schein (1985), culture--as a word--can be applied to any size of social unit "that has had the opportunity to learn and stabilize its view of itself and the environment around it--its basic assumptions" (p. 8). It is at the broadest level that civilizations are expressed as cultures, such as Western or Eastern cultures. Countries, with a homogenous ethnic commonality, are a next level of cultural unit (Hall, 1976; Schein, 1985). For example, we speak of the Mexican, French, and Italian cultures. A level not cited by Schein--regional cultures--is one that can overlap the two above. It

can refer to regions of large countries, such as the U.S., or one extending across smaller countries; it is used by some authors to denote economic and managerial behaviors indigenous to certain industries or professions (Weiss, 1988; Weiss & Delbeck, 1988). Within countries, cultures tied to ethnic or minority groups may be found, such as Hispanic and Oriental populations. A further step is to recognize cultures that are associated with certain occupations and professions (Schein, 1985; Van Maanen & Barley, 1984). For example, medical doctors, lawyers, and university professors have their "professional" cultures that distinguish them from other employees (Bess, 1988; Feldman, 1987).

It is the last major level, cited by Schein, the organization, that is the primary level of cultural focus for this study. The basic criterion for cultural formation at any level, according to Schein (1984, 1985), is stability with a shared history--time to develop a unique way of operating and communicating.

Of course, with this criterion in mind, groups or other subunits of organizations can have identifiable cultures or sub-cultures. Schein recognizes this possibility, but then neglects the implication by directing much of his discussion toward organizations as having homogenous cultures by virtue of their origin and development from a single individual, or group leader-founder. In this vein, organizations provide regularly convened settings in which culture(s) may develop. They are said to be **culture-bearing milieux** (Louis, 1984, 1985). As such, their continued development and elaboration may grow into the "high-context" cultures, such as the Japanese or Latin American that are mentioned by Hall (1976).

Louis (1983) and Frost et al. (1985) suggest that these broader levels serve as universal sets of meaning that are subdivided into more locally relevant codes as the

social units decrease in size. The lower-level codes represent elaborations of the broader universal sets. A weakness in organizational literature, according to Louis, is that organizations have been studied with assumptions of universal culture without the localized cultures having a bearing.

Organizational Culture Defined

In our earlier definition, culture was described as whatever members have to know in order to behavior in an acceptable manner to each other (Goodenough, 1971). Schein (1984) indicates that notions of cultures--as sets of shared meanings that facilitate group members being able to interpret and act upon their environment--do not go far enough in explaining how the culture arose, how it formed, or how it could be changed if viability were in question.

Elsewhere, Schein (1985) indicates that many precursor meanings of culture are **reflections** of culture but are not the **essence** of culture. Some of these earlier meanings that he cites describe culture as: 1) observed behavioral regularities in human interaction (Goffman, 1967; Van Maanen, 1979a); 2) norms that evolve in work groups (Homans, 1950; Kilmann & Saxton, 1982); 3) dominant values espoused by an organization (Deal & Kennedy, 1982); 4) philosophy that guide an organization's policy toward its employees (Ouchi, 1981); 5) rules of the game for getting along in the organization (Schein, 1978; Van Maanen, 1979b); and 6) feeling or climate conveyed in an organization by its physical layout and employee interaction (Moos, 1979).

It is from Schein that our definition of organizational culture is drawn:

> a pattern of basic assumptions--invented, discovered, or developed by a given group as it learns to cope with its problem of external adaptation and internal integration--that has worked well enough to be considered valid and, therefore,

> to be taught to new members as the correct way to perceive, think, and feel in relation to these problems ((1984, p. 3; 1985, p. 9)

As Schein (1985) indicates, this definition does not include behavior patterns, since he believes those are derived from the cultural setting and from situational contingencies in the environment.

Understanding Culture in Organizations

Organization theory, particularly in its most recent thrust as the **organizational culture school**, is useful to explain how groups or individuals behave in varying organizational structures and circumstances (Shafritz & Ott, 1987). In essence, all organizations: 1) have objectives, 2) attract members, 3) acquire and allocate resources to accomplish goals, 4) use some form of structure to coordinate activities, and 5) rely on certain members to manage others and the resources (Etzioni, 1964). While these elements remain fairly constant, the organizational purposes, structures, ways of doing things and methods for coordinating activity vary widely. From the "open systems" view, organizations have influence and are influenced by the larger environment around them (French & Bell, 1984; Huse & Cummings, 1985; Shafritz & Ott, 1987). As such, the variations reflect the adaptations that each organization makes in relation to its environment.

Culture and cultural environments serve as one window or perspective to study and understand organizations. Cultures, indigenous to varying levels of social systems (e.g., countries, communities, and organizations), serve as linking mechanisms between systems and provide integration to the members within them (Schein, 1985).

Culture, from an anthropological and sociological view, is normative to the people that it serves and provides them with a sense of coherence, order, and meaning

(Weick, 1985). Field research often requires that the researcher becomes a part of the system under study (Schatzman & Strauss, 1973; Spradley, 1980). Then, through comparison with other cultures, one can make conjectures about how some aspect of a particular cultural system is useful to its members and functional to the organization (Glaser & Strauss, 1967) From this view, culture is long-standing, it provides meaning, and study and observation of it leads to understanding.

In contrast, culture from a management perspective (e.g., corporate culture) is directed toward other ends. Models of "effective" cultures are often used to compare weaker cultures of organizations that are struggling for survival (Deal & Kennedy, 1982; Peters & Waterman, 1982). In this perspective, the concept of culture is ephemeral; the organizational culture is manipulable; and its diagnosis leads to change. A distinct problem arises when the change agent stands outside it and, too often, relies only on secondary levels of quantitative data to understand and analyze it (Shafritz & Ott, 1987; Smirich, 1985).

Smirich (1983) identified two themes in organization management research that characterizes culture as an organizational variable: 1) cross-cultural or comparative management, and 2) corporate culture studies.

"Cross-cultural and Comparative Management" field attempts to understand variation in management and employees attitudes and practices across countries and major cultural groups. The relationship is between the larger cultural environment, as an independent variable, and to organizational structure and practices within it. Much of the research interest here has been with multinational organizations and recognition of global interdependence (Adler, 1983; Kelley & Worthley, 1981; Smirich, 1983).

"Corporate Culture Studies" have provided evidence that organizations are presumed to be "culture-producing phenomena" (Deal & Kennedy, 1982; Louis, 1983, 1985; Siehl & Martin, 1988; Tichy, 1982). As social instruments that produce goods and services, organizations also produce by-products of cultural artifacts, such as rituals, myths, and ceremonies. While not ignoring their embeddedness in wider cultural environments, this manifestation from an open systems perspective puts the emphasis on the socio-cultural qualities that develop. A cultural balance of interacting systems is thought to lead to effectiveness and strength (Deal & Kennedy, 1982; Peters & Waterman, 1982). Culture also represents a systemic lever for bringing about change and balance (Smirich, 1983).

As Smirich (1983) states, in the first case, the larger cultural environment is imprinting upon the organization, and, in the second case, organizational culture results from human enactment. Organizational comparisons are often made to physical objects, such as machines and organisms.

Van Maanen and Barley (1985) provide three domains for analysis when searching for worksite cultures: 1) **ecological context** refers to ways in which worksite activities are structured (i.e., who does what, when and where); 2) **differential interaction** among members reflects physical proximity, sharing common tasks, and interdependence of workflow; and 3) **collective understanding** is what forms to support concerted actions and understanding of the organization and the individual's place in it–making sense of ongoing organizational activity. A unitary organizational culture, according to these authors, usually is a result of specific circumstances "when all members of the organization face roughly the same problems, when everyone communicates with almost everyone else, and when each member adopts a common

set of understandings for enacting proper and consensually approved behavior" (VanMaanen & Barley (1985, p. 37).

On a different level, Louis (1983, 1985) proposes two major categories of loci of sub-culture--**intraorganizational sites** and **transorganizational sites**. A few examples for these and other potential loci will be proposed that directly relate to university environments and health promotion issues.

Intraorganizational loci of sub-culture can be found in various parts of the organization, such as: 1) the **top of the organization**, of which two notable forms are the "for-public consumption" culture, designed at the top and meant to be handed down through the organization; and the "corporate culture" that represents the more visible aspects; 2) **vertical slice of the organization**, such as cultures formed along divisional lines of the organization (e.g., maintenance-custodial apart from the academic, or the natural sciences apart from social sciences); 3) **horizontal slice of the organization**, which may form along particular job types or hierarchical levels, such as faculty, clerical-technical, and students, or the custodial apart from the building managers; 4) **particular units or departments**, such as individual academic departments, which may develop unique cultures exclusive of each other (e.g., biological scientists separate from the soil scientists); and 5) **any group that regularly meets**, which may form a separate culture even if it is not in the same department or level. Positive health cultures may form from groups that run, workout, or play on department athletic teams together. Also, negative sub-cultures, such as smokers or sedentary employees who always eat and sit together, may form on the basis of exclusion from others.

Transorganizational loci of sub-culture represent cultural influences whose cores emanate from outside the organization: 1) **ethnic groups** may be pocketed within an

organization or may actually cross many division and organization boundaries; 2) **industry level**, such as academic cultures that cross many departments or across a community, particularly with multiple colleges (e.g., all scientists or all organic chemists may have a common culture); and 3) **occupation or profession**, such as lab technicians, non-tenured faculty within a department, or clerical staff.

As Louis (1985) indicates, the existence of a non-culture is hard to find. The issue becomes one of defining the relevant boundaries for the many potential cultures that may be in existence. It is through determining the cultural boundary sets that cultural penetration in the organization is identifiable from three aspects: **sociological, psychological** and **historical**. Sociological penetration looks at **pervasiveness**, how far into the organization the culture goes. Psychological penetration is the **homogeneity** of interpretation of shared meanings among the group members. The last aspect, historical penetration, looks at **stability** over time of the shared understandings. Louis states that looking for entrenched or embeddedness of beliefs and assumptions here is an **indicator of inertia and potential resistance to change**. Harvey and Brown (1988) propose a matrix to exemplify the relationship between pervasiveness and homogeneity that leads to cultural strength (p. 387; see Figure 3). In this case, the ability to adapt to the environment and integrate change may lead to a strong culture in the short term. As shown in Figure 3, a strong culture can be a combination. With repeated success, however, the organizational culture more formally structures itself and may become rigid and inflexible over the long term: larger numbers showing similar values and high commitment to those values.

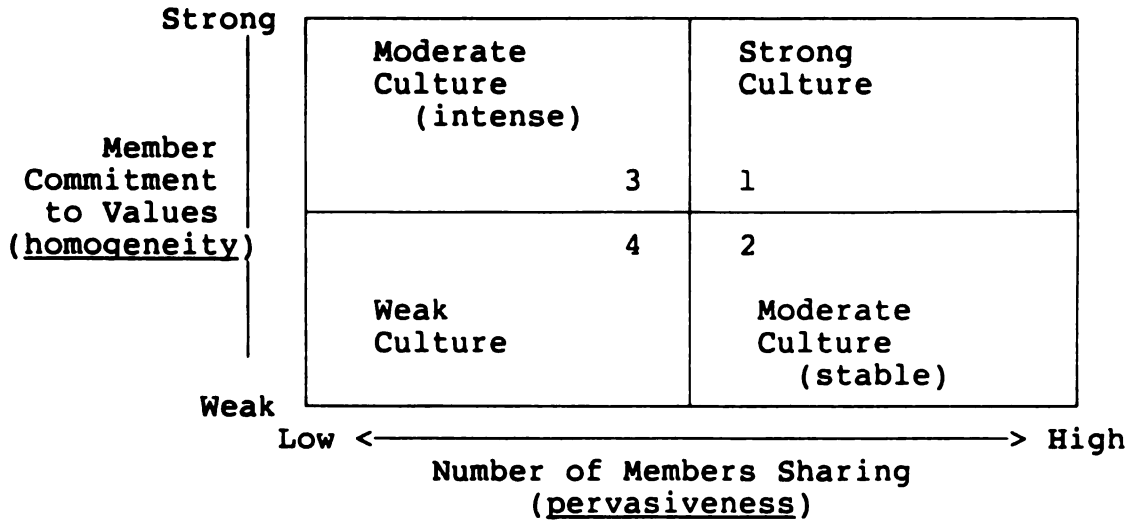


Figure 3: Cultural Strength

Another aspect of penetration proposed by Louis (1985) is to look at the direction or orientation of the sub-cultures. These may develop toward, away from, or against other groups and cultures--the **enhancing**, **orthogonal**, and **counterculture** types proposed by Martin and Siehl (1983). One needs to look at whether the orientation is focused in support of the dominant organizational culture or toward some external orientation. One example would be the cosmopolitan-localite orientation developed by Gouldner (1957, 1958). He proposed that "research professionals," with a cosmopolite orientation, would cut across the department and connect externally to the "profession", while localites would emphasize internal support of organization activity that enhances the profession. In a diverse organization type, such as a university, there may be "neutral" cultures hanging in the balance (e.g., support staff and administrators who have a local focus but not necessarily oriented toward the research profession). There may also be evidence of non-tenured "young turks" that contrast with the tenured "old guard" professors. Another example, similar to that used before, is related to health

behaviors: negative cultures reinforce negative health behaviors, while a positive work culture is expected to be supportive of employee health achievement.

Universities as Cultural Environments. As all organizations tend to be different, each one can be differentiated by the culture that supports it, and that which it supports (Harvey & Brown, 1988). It is further noted that cultural environments (whether larger social systems, communities, or organizations) can contain a variety of sub-cultures within them (Martin & Siehl, 1983; Rose, 1988; Schein, 1984, 1985), and each member may operate within and be a part of multiple cultures (Rose, 1988; Thomas, 1985). Experience tells us that, while a large complex organization, such as a university, may present an image of a homogenous culture to the outside, it can actually contain sub-cultures of smaller professional units (Bess, 1982, 1988). These are often delineated by a variety of indicators, for example, academic/non-academic, faculty/student, teaching/research, and "hard sciences"/"soft sciences". It is through this cultural phenomena of values, beliefs, and artifacts (Schein, 1985), that divisions or sub-units can be defined, identified, and bonded together, sometimes at cross purposes.

At a macro-level Bess (1982), refers to a university/research culture "with its set of norms and symbols, methods for recruiting members, and patterns of exchanging knowledge through publications and consulting" (p. 29). In contrasting research that evaluated management in higher education, Fetterman (1987) highlights the importance of academic departments as the cultural unit of study. This contrasts with studies, such as Levine (1980), that focus on the wider university organization as the decision unit. The most noticeable gap in the literature on change in higher education is the almost total absence of discussing or recognizing that any university members, other than faculty, researchers and academics, are involved in change processes. In contrast, the

key to health promotion's success is to also include those other members (e.g., clerical staff, technicians, and students) into its domain.

Levels and Content of Culture in Organizations

It is useful to distinguish among levels of culture in order to separate the core essence from the manifestations. Schein (1984, 1985) and Dyer and Dyer (1986) posit **artifacts** at the surface, with **values** directly below, and **basic assumptions** at the core.

Artifacts. These are the most visible and tangible aspects and are represented by the organization's constructed physical and social environment that includes: 1) **physical artifacts**, such as design of physical space and office layout, technological output of the group, company logo, and employee dress; 2) **behavioral artifacts**, such as artistic production, rituals, and ceremonies, and 3) **verbal artifacts**, like the written and spoken language and the stories, sagas, and myths shared by organization members.

Every aspect of an organizational life produces artifacts (Schein, 1985). These are often easily identified but the meanings attached to them are not readily understood by outsiders. For example, anthropologists have spent great a deal of time in other civilizations and devised techniques such as "semiotics" (Manning, 1977; Spradley, 1979) to learn their language systems and gain the perspective of the insider.

Values. These reflect the sense of what "ought" to be in contrast to what "is". Dyer and Dyer (1986) state that values include the general ideals, standards, and sins of the organization--many of which become formally espoused in writing as part of the management philosophy. According to Schein (1985), values are usually initial beliefs that may pop up when confronted by some new circumstance or change. They may

become accepted by the total group after they have been proven true–thereby becoming part of the larger belief system.

It is through a process of **cognitive transformation** that these values, which are proven correct, may evolve into beliefs and possibly further into assumptions. Those that are socially validated by group experience, and serve to reduce anxiety and uncertainty, may become transformed. Those values that remain conscious often serve a moral function as **norms** for guiding accepted behavior among members (Schein, 1985). In a similar vein, when these values are not based on prior learning and group experience, they remain the "espoused values," not in line with the basic assumptions (Argyris & Schon, 1978). It is the alignment of these values with the core assumptions that give the group identity and meaning (Ouchi, 1981; Peters & Waterman, 1982).

Basic Assumptions. Some of these values that consistently lead to appropriate solutions for new problems become taken for granted. This accepted reality soon falls out of conscious reckoning. Schein (1985) states that basic assumptions are different from the "dominant value orientation" of anthropologists, such as Kluckhohn and Strodtbeck (1961). This latter type reflects preferred solutions available from an array of options still open for choosing. In contrast, basic assumptions have become so taken for granted that little culture variation is found within the organization. For example, an organization, whose basic assumptions include the "organization as family", would be protective of its members, forgiving toward their aberrant behaviors, and intolerant of outsiders.

Schein (1985) indicates that some assumptions are more superficial–easy to read–than others, but may not be any less important. One example he uses is that assumptions of "the right way to do things" are more superficial than those of "the

right things to do". It is at the deeper levels that are found the more general and ultimate issues. But, of great importance at these greater depths, are typologies for their analysis. Schein integrates some of his own concepts with those of Kluckhohn and Strodtbeck (1961) to build the underlying assumptions around which cultural paradigms form. There are five major components contained within it: 1) humanity's relationship to nature, 2) nature of reality and truth, 3) nature of human nature, 4) nature of human activity, and 5) nature of human relationships. Figure 4 provides an outline of these cultural levels as designed by Schein (1985, p. 27).

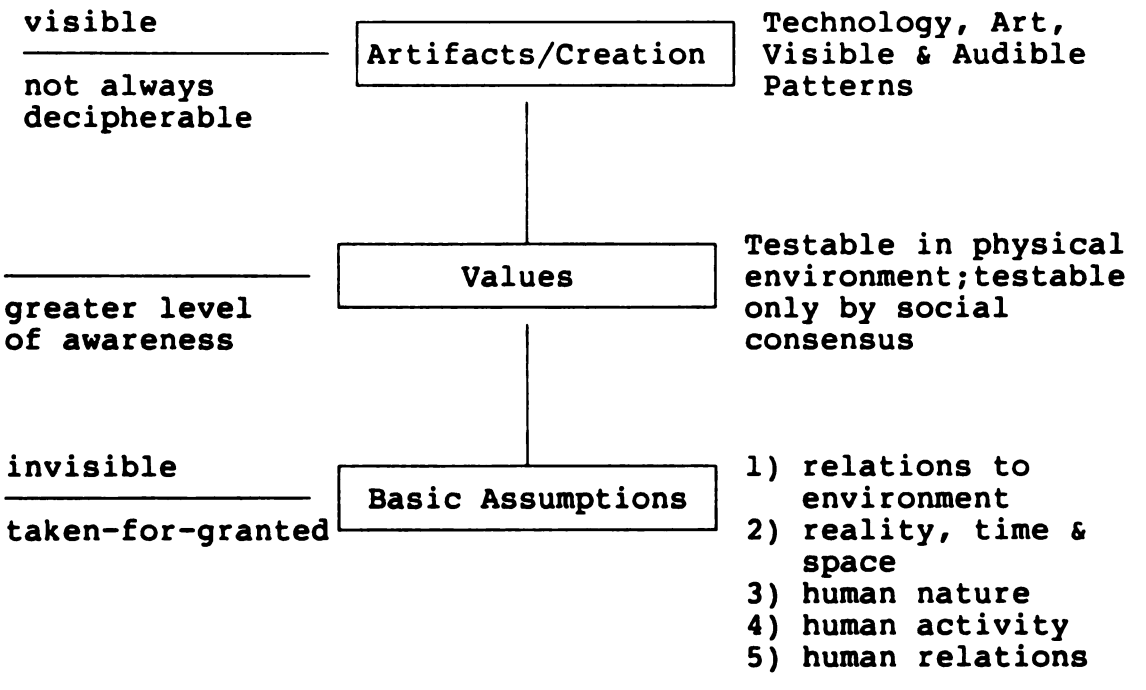


Figure 4: Levels of Culture

Basic assumptions are the taken-for-granted beliefs that group members hold about themselves and the world (Dyer & Dyer, 1986). These are similar to the "theories-

in-use" of Argyris and Schon (1978) that guide member behavior and tell them how to think and feel about things. The process of "double-loop-learning" espoused by Argyris and Schon is not easy to institute, because basic assumptions by their very nature are not confrontable or debatable (Schein, 1985). It is when dealing with cross-cultural transfer of ideas that these underlying assumptions need to be exposed--a major tenet of cross-cultural communication studies (Rogers & Agarwala-Rogers, 1976). Otherwise, mistrust results from miscommunication and barriers to understanding are raised (Ulrich, 1988).

Culture and Organizational Change

This section provides background to understanding how cultures provide stability and flexibility to organizations, how organizations change or adopt innovations, and the variables involved in that process.

A Functional View of Organizational Culture

At a broad level, culture provides a sense of **continuity**, **control**, **identity**, and **integration** of its members (Louis, 1983). Schein (1985) cites Parsons (1951) and Merton (1957) in saying that culture solves the organization's most basic problem of: 1) **survival in, and adaptation** to its external environment, and 2) **integration** of its internal process to ensure its capacity to survive and adapt. The major elements of each of these functional cycles will be reviewed briefly.

The external adaptation process is a series of steps, related to their task orientation, on which organizations must work as they grow and mature. In that

process, they: 1) develop a mission and strategy to guide its primary and secondary functions; 2) develop goal consensus; 3) develop consensus for reaching the goals; 4) reach consensus on criteria for measuring achievement; and 5) develop consensus on strategy maintenance or change if the goals are not met (Schein, 1985). In a broader sense, this helps determine what new ideas and innovations are even tried in the first place.

The internal integration process determines what changes and innovations will be incorporated into the organization's domain. This internal process, according to Schein (1985), creates the togetherness--the building and maintaining--that enables groups to accomplish more than individuals alone. In order to integrate and become stable, the organization must: 1) develop a common language and conceptual categories so group members can communicate with each other; 2) develop consensus on group boundaries so members will know who is in and who is not; 3) reach consensus on hierarchy, power, and status and the means to alter them; 4) work out its rules for peer relationships, intimacy, and friendship as they affect task management; 5) develop accepted behaviors and understanding of how they are rewarded or punished; and 6) exercise its ideology and "religion" to explain the unexplicable and uncontrollable events in every organization's life.

It is through the general linkage of these two major cycles (external adaptation and internal integration) that the organization remains viable. The environment provides the initial set of parameters and influences the formation of culture. But as Schein (1985) observes: "once present in the sense of shared assumptions, those assumptions, in turn, influence what will be perceived and defined as the environment" (p. 51). To go a step further, Schein also indicates that organizational culture serves to reduce the

anxiety that people experience when faced with cognitive anxiety or overload. It is similarly thought of as a set of filters to eliminate extraneous overload and keep focus on the relevant parts of the environment.

And, in a more direct sense, organizational culture(s) can block or inhibit contact with innovations, or they can serve to integrate them into their system (Harvey & Brown, 1988; Huse & Cummings, 1985; Mitroff & Kilmann, 1984). The need to understand the relationship between organization culture and strategy for change is illustrated in Figure 5 (Harvey & Brown, 1988, p. 389).

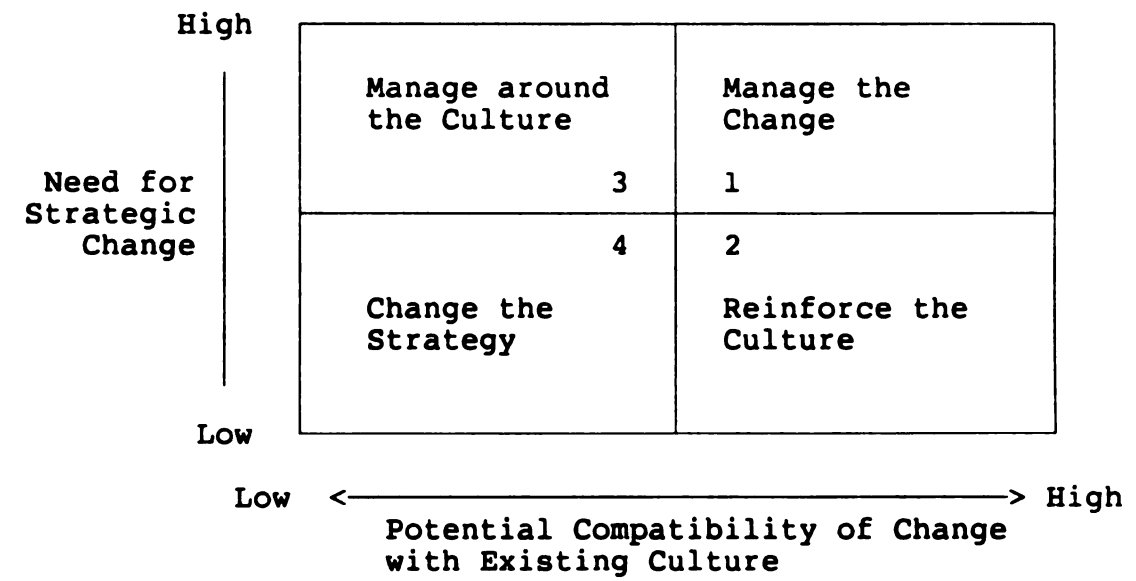


Figure 5: The Strategy-Culture Matrix

A brief explanation of these constructs is provided by Harvey & Brown (1988): 1) **Manage the change** (manageable risks). An organization in quadrant 1 is bringing about a change that is important to the organization and fits with its existing culture. Therefore, major changes are still acceptable, as long the cultural and reward systems

support them. 2) **Reinforce the culture** (negligible risk). An organization in quadrant 2 needs little change in the innovation, and they are compatible with the existing culture. Emphasis on the compatible parts is helpful to adopt it. 3) **Manage around the culture** (manageable risk). In quadrant 3, changes in the innovation are called for, but they are still potentially incompatible with the culture. Success may mean to manage around the culture without confronting it directly. 4) **Change the strategy** (unacceptable risk). Problems arise here because the change is important to the organization, but incompatible to the culture. If no chance of success is foreseen, the innovation must be changed to fit the culture.

Another function of culture, only to be briefly mentioned, is its use as a control mechanism--an extension of power operating within organizational settings. Culture, in this case, or some form of it, such as "ideology", is used to overtly direct the values and norms acceptable to the organization (Beyer, Dunbar, & Meyer, 1988; Scott, 1987). Schein (1985) views ideology as a conscious component of the total set of assumptions in a culture. They are an overarching set of values that serve as prescription for action, particularly in respect to other groups.

From their review of the literature, Shafritz and Ott (1987) highlight the few areas of consensus that appear to exist: 1) organizational culture exists; 2) each organizational culture is relatively unique; 3) it is a socially constructed reality; 4) organizational culture provides the members with ways of understanding and making sense of events and symbols; and 5) it is a powerful level for guiding and instructing organizational behavior--an organizational control mechanism.

It is reasonable to ask whether organizational culture should be changed (Shafritz & Ott, 1987). Some authors (Allen and Linde, 1981; Allen and Kraft, 1982)

are oriented toward changing behavioral norms, particularly as a mechanism to create support for positive health behaviors. Moos (1979, 1986) has performed a number of studies that accentuate a positive work climate as critical to a healthy environment. Davis (1984) argues for CEO (chief executive officer) imposed top-down change. At the same time, Sathe (1985) and Martin and Siehl (1983) predict failure for single-strategy culture change. It should be attempted only if certain conditions are right, otherwise efforts to change the culture may be harmful (Schein, 1985).

Organizations and Innovations

Organizations are actors and reactors in a complex environment that is constantly changing (Pascarella and Frohman, 1989). Correspondingly, organizations, including universities, are continually undergoing change (Baldridge & Deal, 1983). They are continually mobilizing for new innovations that will help them control and make sense of their turbulent environment. Hall (1977) states that changes in organizations are not as random as they might appear. From a review of Zaltman, Duncan and Holbek (1973), Hall suggests three forms of innovations that take place in organizations. The first is innovations that are **distressed** when they are foistered upon the organization from the external environment (e.g., regulatory policies). Other choices that are based on perceived needs, product development, and resource priorities are said to be **programmed** innovations. And the last form, **nonprogrammed** innovations, is those that may occur when there are "slack" resources available to the organization. It is how the organization perceives its relationship to health promotion, for example as being forced upon it, consciously chosen, or just a good thing to do--that affects the organizational commitment to the innovation.

Terborg (1986) reminds us that organizations can be very demanding "when evaluating business decisions, but often seem to display unusually high gullibility when it comes to adopting new management techniques" (p. 284). Management-by-objectives, matrix-type organizations, quality-of-work life, strategic management, and "searching for excellence" have all come "galloping in on white horses and many have as quickly ridden off into the night". Terborg credits this aura of faddishness to their adoption as a mixture of "one part timeliness, two parts effective consulting, and one part demonstrated value" (p. 238).

It is not a digression to state that, in many cases, the components of most organizational innovations are not new, **but how they are packaged and reformulated represents the change** (Edington, 1987). It is also no secret that what is commonplace in one setting can be totally new when applied or introduced into another (Brown, 1981; Rogers, 1983; Zaltman et al., 1973). This is indeed true in transferring health promotion from traditional health-care facilities into worksites (Orlandi, 1986).

There are certain characteristics of innovations that influence whether or not they are adopted. These include: costs, complexity, magnitude, perceived quality, perceived threat to members, point of origin, and compatibility (Hall, 1977; Sanchez, 1987). Each of these characteristics represents a hurdle as the organization decides to continue, or not continue, with its adoption and implementation.

Earlier, it was indicated that the innovation-adoption perspective treated most innovations as clearly-defined entities that simply required an organizational decision to adopt them. What Cummings and Morhman (1987) and Rogers (1983) call the "pro-innovation bias" is evident with most health promotion efforts: health promotion is presented as a concept worthy of adoption by itself, not as a complex phenomena with

many characteristics. From this perspective, the health promotion providers (or other change agents) may not recognize or deal with the organization's need to resist or modify the health promotion innovation to suit its culture.

What is missing is the understanding of most innovations as clusters of innovation--what Rogers (1983) calls "technology clusters". Incorporated within any major change is a series of smaller innovations, each requiring a decision to accept or reject. These decisions come hardest when they actually require a potential change in the management strategy and cultural systems of the organization--requiring one or the other to change in order to support the innovation. Some typical decision segments that must be dealt with include: 1) **resources available**, such as time, employee involvement, and incentives; 2) **decision making styles**; 3) **management commitment** and role modeling; and 4) **communication and promotion** effort (Sloan & Allegrante, 1985; Rosen, 1985). Each innovation calls upon the full spectrum of an organization--its culture (values, norms, and behavior), power relationships, management strategy, and reward systems--in order to fully integrate and support any changes.

In contrast, linearity in thinking of the innovation-adoption process, as outlined by Cummings and Morhman (1987), concludes that the set of decision steps will follow one after another as the organization decides to adopt. To the contrary, experience indicates that each segment requires an individual decision by the organization. The complement of decision steps with each other and their compatibility with organizational experience are keys to aid the process. But if the decision steps, as well as the actual innovation, are new to the organization, then the chances of adoption decrease. This leads to a need to understand the nature of the intervention strategies in use, which will be discussed in the next chapter.

The Adoption of Innovations

According to Rogers (1983) and Brown (1981), research on the diffusion and adoption of innovations has consistently been a multi-disciplinary effort, starting from the diverse perspectives that include: anthropology, rural sociology, education, public health, communications, marketing, geography, general sociology and economics.

Everett Rogers is recognized as the foremost synthesizer of diffusion of innovation literature (Taylor & Miller, 1979). His book, Diffusion of Innovations (1983), will be used as a sourcebook for the remainder of this chapter--including others as necessary.

In his book, Rogers (1983) states that the complete innovation-development process consists of:

> all of the decision activities, and their impacts that occur from recognition of a need or problem, through research, development, and commercialization of an innovation, through diffusion and adoption of the innovation by users, to its consequences (p. 135).

Before the terms "changes" and "innovations" are used synonymously, they need to be defined. It is reasonable to ask whether the popular connotations of them are semantically different. Are "changes" seen as more random or reactive acts of an organization, while innovation is a positive act? Rogers and Agarwala-Rogers (1976) note that a distinction between them can be made: "Whereas innovation implies adoption of an idea perceived as new, change may also involve the replacement of an already existing idea by another" (p. 153). But because the authors indicate the terms are used so interchangeably, both will be used here, with innovation the prevailing term. It remains useful to note that the idea being adopted may be new or it may be familiar.

Likewise, some changes are innovations, but not necessarily all of them (Rogers & Agarwala-Rogers, 1976).

An innovation, then, is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 1983, p. 11). The importance is the newness to the individual and not as a measure of time since creation of the innovation. As Brown (1981) adds, the innovation may be intrinsically new or only new to the setting in which it is found. Earlier definitions (Rogers with Shoemaker, 1971) had accorded innovation as "an idea, practice, or object perceived as new by an individual" (p. 19). But Zaltman et al. (1973, p. 10) and Rogers and Agarwala-Rogers (1976, p. 150) recognized adopters to include organizations as well as individuals.

The innovation, as has been outlined, is the first of four elements that Rogers (1983) includes in his definition of diffusion: "the process by which (1) an innovation (2) is "communicated" through certain channels (3) over time (4) among members of the social system" (p. 10). Diffusion occurs among individuals at the social system level. It encompasses adoption (i.e. the innovation-decision process) which occurs at the individual level (Lambur, 1983). We shall take a closer look at each element of the definition.

The Element of Innovation

Further clarification of innovation will be made here, to go beyond our understanding of it as being a new technology, idea or information as perceived by the potential adoption unit. These concepts of the innovation that are illustrated by Rogers (1983) include: 1) information segment, 2) characteristics of innovations, 3) technology clusters, and 4) re-invention. Zaltman et al. (1973) includes the type of

innovations as another facet to be considered. The first of these focuses on the **information segment** needed to reduce uncertainty of the innovation. Rogers (1983) uses innovation, technology, or technological innovation as synonymous terms. They are made up by a **hardware component** and a **software component**. The hardware component consists of the "tool that embodies the technology as material or physical objects"; the software component refers to "the information base for the tool" (Rogers, 1983, p. 12). Technology is likened to the hardware as the tool (for example with health promotion: computers, treadmill exercise tests, blood analyses, tangible incentives, and exercise bikes--the dominance of physical objects or machinery, and software as the way it is used (such as behavior modification, social support and empowerment, stress management-relaxation techniques, and creating commitment for change).

Rogers (1983) describes the innovation-decision process as: "essentially an information-seeking and information-processing activity in which the individual is motivated to reduce uncertainty about the advantages and disadvantages of the innovation" (p. 13). Thus, software information is provided to reduce uncertainty about the innovation's ability to solve the perceived need or problem: what it is, how it works, and why it works. Once the individual reaches this stage, the importance of innovation-evaluation information takes over to reduce apprehension about the innovation's consequences and relative advantages to the situation.

The second major delineation is in the **characteristics of innovations**. Rogers (1983) indicates that it is the perception of these characteristics that helps explain the different rates of adoption. What separates one innovation from another is its: 1) **relative advantage** (the degree one innovation is seen as better than an existing one);

2) **compatibility** (the relative consistency of the innovation with current values, practices, and experiences of potential adopters); 3) **complexity** (the perceived difficulty of using the innovation); 4) **triability** (the ability to use the innovation on a limited basis before a final commitment is made); and 5) **observability** (the degree one can observe the results of an innovation beforehand). While these are not the only factors that affect adoption, Rogers notes that greater relative advantage, comparability, triability, observability, and less complexity are the most important.

Two other concepts that clarify innovations will also be addressed: **technology clusters** and **re-invention**. In looking at the boundaries of innovations, it becomes hard to tell when one begins and another leaves off. In some instances, adoption of one innovation makes it easier to adopt another, or it may be requisite to adoption of the other (Brown, 1981). Technology clusters refers to "one or more distinguishable elements of technology that are perceived as being closely related" (Rogers, 1983, p. 14). An example he cites is one of some families that recycle papers also tend to recycle cans and bottles, while others just recycle paper. Therefore, understanding this becomes critical to facilitating multiple and reinforcing behaviors rather than a single-item health innovation. The second concept, re-invention, refers to "the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation" (Rogers, 1983, pp. 16, 17). Here, one must look at the predilection to assume innovations are adopted in toto, and balance it by understanding the adopter's need to "re-invent" or modify the innovation to the specific situation (Brown, 1981). Further, because individuals may adopt the same innovation for different reasons, the differences are only seen in how the actual innovation is adopted (Lambur, 1983). For example, an organization that is singly focused on reducing health-care costs may try

to shift co-payment fees to employees. This can be seen as co-opting individual decision making by instituting rules and procedures to enforce certain health-oriented behaviors, such as smoking policies, seat belt use, and mandatory fitness programs at work.

As indicated by Rogers (1983), once the existence of the innovation is recognized, its communication to the potential adopter is the next major element of diffusion.

The Element of Communication

While communication is a process of sharing information among participants, diffusion is a particular communication type that is primarily concerned with information about new ideas (Rogers, 1983). In its most simple form, the process involves: 1) an innovation, 2) an individual with information or experience of an innovation, 3) an individual or other unit without knowledge or exposure to the innovation, and 4) a communication channel--means for message transfer--between the two units. The communication channel can vary between mass media (e.g., radio, newspaper, and television) and interpersonal channels that involve face-to-face contact.

As Rogers (1983) notes, it is the relative homophily (likeness) of the two units--adopter and promoter--that positively affects communication. But the experience in most innovation communications is that the participants are quite heterophilous (different in certain attributes). What the optimum level of heterophily is, at least in the levels of information possessed, may vary with respect to each innovation.

The Element of Time

Next, in our review of diffusion elements, is one that is often ignored, time. While not a discrete element of its own, it is an indicator of change on three levels that pertain to: 1) how an individual moves from first awareness to adoption or rejection (innovation-decision process); 2) how quickly an individual adopts in relation to others (innovativeness); and 3) by the level to which the system adopts the innovation (rate of adoption). The first level, known as the **innovation-decision process**, is defined by Rogers (1983) as:

> the process through which an individual (or decision-making unit) passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision (p. 163).

As delineated by Rogers (1983), and further elaborated by Lambur (1983), there are five primary steps in this process: 1) **knowledge** of the information and how it functions; 2) **persuasion** when the adopter unit gains a favorable or unfavorable attitude toward the innovation; 3) **decision** when the decision-making unit engages in activities that will lead to a choice to adopt or reject; 4) **implementation** when the innovation is put into use; and 5) **confirmation** as the reinforcement behaviors that validate the decision made.

The next level in the time element is **innovativeness**: "the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than the other members of the system" (Rogers, 1983, p. 22). A major significance in this element is that all members of the social system will not adopt or reject the innovation at the same time. The innovation-decision period is the amount of time it takes for an individual to move through the process. Individuals categorized as being more

innovative would be those found to travel through this innovation-decision period very quickly.

Based on the criterion of innovativeness, members of the social system can be classified into adopter categories: innovators, early adopters, early majority, late majority and laggards. Lambur (1983) summarizes Rogers' portrayal of these categories into a normal distribution, representing "ideal types":

> By demonstrating that adopter distributions approach normalcy, the normal curve is divided into five segments representing standard deviations from the mean, or the average time of the innovation-decision period. Each of these segments represents a standardized percentage of adopters with similar degrees of innovativeness. Accordingly then, the first 2.5% to adopt are called innovators; the next 13.5% are early adopters; the next 34% are the early majority; the next 34% are the late majority; and the final 16% are called laggards (p. 85).

Characteristics of Innovative Individuals

The following characteristics of each adopter category are those outlined by Rogers (1983). **Innovators** are described as venturesome. Their eagerness to try out new ideas draws them away from their local peer groups and into a more cosmopolite social network. Communication among innovators will take place but may occur over greater geographical distance. The innovator must be able to deal with high degrees of uncertainty about an innovation and have enough resources to absorb potential losses. While not always highly respected members of a group, they serve an important function of introducing new ideas from external environments.

Early adopters, on the other hand, are more respectable members of their community, found to have more opinion leadership in the system. In contrast to innovators as cosmopolites, the early adopters are more localite-oriented to the local community. While not far ahead of average in innovativeness, they still represent the

one "to check with" before starting a new venture. As the role model, their opinion represents subjective opinions for others to follow.

The **early majority** represent the link between very early and very late adopters. Their innovation-decision period is relatively long. They are deliberate in their willingness to follow but not in leading. The **late majority**, are the skeptical group. Their adoption decision may result from peer pressure and economic necessity. Group norms are more crucial for adopting than the rational decision making.

The last group to adopt, the **laggards**, are the most isolated and localite in their social networks. The past and precedent become the guide for decisions. Their awareness-knowledge of innovation lags far behind others; innovators will be a number of innovations ahead of this group at all times. Their slowness to adopt may represent the rational inability to take chance when no slack resources are available.

Three categories of individual variables--socioeconomic, personality, and communication behavior--have been found in Rogers' (1983) research to be associated with innovativeness. These characteristics are summarized by Lambur (1983, p. 86):

1. Socioeconomic variables: Earlier adopters are no different in age; have more years of education; are more likely to be literate; have higher social status; have a greater degree of upward social mobility; have larger sized units (farms, companies, and so on); are more likely to have a commercial (rather than a subsistence) economic orientation; have a more favorable attitude toward credit (borrowing money); and have more specialized operations than later adopters.

2. Personality variables: Earlier adopters have greater empathy; may be less dogmatic; have a greater ability to deal with abstractions; have greater intelligence; have a more favorable attitude toward change, education and science; are more able to cope with risk and uncertainty; are less fatalistic; have higher levels of achievement motivation; and have higher aspirations (for education, occupations, and so on) than later adopters.

3. Communication behavior variables: Earlier adopters have more social participation; are more highly interconnected in the social system; are more cosmopolite; have more change agent contact; have greater exposure to mass media; have greater exposure to interpersonal communication channels; seek information about innovations more actively; have greater knowledge of innovations; have a higher degree of opinion leadership; and more likely to belong to highly interconnected systems than later adopters.

The last time element, **rate of adoption**, refers to: "the relative speed with which an innovation is adopted by members of a social system" (Rogers, 1983, p. 23). It is usually measured by the length of time it takes for a certain percentage of a system's members to adopt the innovation. So this measure is unique to an innovation within a specific social system and not constant across all units.

The Social System Element

The social system comprises the fourth and last element of the innovation-diffusion process. The member or units of a social system can consist of individuals, informal groups, organizations, or sub-systems. Our discussion, in general, is limited to the individual and organizations. The social system, as used by Rogers (1983), is the relevant boundary within which the innovation spreads. Five social systems variables that he introduces are critical in this regard. The first of these, the **social structure** depicts the patterned arrangement of the units. One example of structural differences, given in Chapter One, was between traditional bureaucratic and university structures, with the latter noted for its general lack of innovativeness. One facet of this is the **communication channels** that exist (Rogers, 1983), both formal and informal (Rogers & Agarwala-Rogers, 1976).

Another variable within the social system, according to Rogers (1983), is the **system norms** (i.e., the established patterns for the system members). A more encompassing concept is the **culture of the system**--its values, norms, and assumptions (Schein, 1985). Other than suggesting them, Rogers does not spend much time discussing cultural variables, but they are critical elements in this study.

A third social system variable is the **strength and viability of opinion leadership** within the system and the change agents trying to influence positive adoption decisions. Change agents are often outsiders, with some level of training or expertise, who work with opinion leaders--as integral members of the system--to exert influence to bring about some change with the system. It is the homophilous-heterophilous spread of the opinion leadership and the change agents that affects the effectiveness of communication to other members (Zaltman & Duncan, 1977).

The next-to-last variable in the social system element is the **type of innovation-decisions** that can be made, either by the individual member or the entire social system. Rogers (1983) specifies the first of these as the decisions that can be made by the individual, quite independent of others, but still influenced by the norms and values of the system. In fact, it is at this level that the first studies of diffusion took place. Only recently has the scope of understanding expanded to include the decisions at different levels, viz., collective and authority innovation-decisions. **Collective innovative-decisions** are choices that are made subject to consensus among the system members. Examples of these that Rogers (1983) cites are building construction codes that affect all new housing units, and new services allowed into a city, such as cable television, that still require an individual decision to implement the service. The freedom of choice reflects the nature of the innovation-decision.

Another type of change decisions exemplifies those that are made by a **relevant decision-making authority**--power, status, or expertise--within an organization (Rogers, 1983). In this instance, the individual has little or no influence on the decision process--administrative fiat. Another innovation-decision proposed by Rogers is **contingent innovation-decisions** (combinations of previous types) that can be made only after a prior innovation-decision by a larger social system unit. A current example of this is that of an individual wanting to have airbags in his/her automobile. In most cases, the individual must wait until there is a governmental policy decision requiring automobile manufacturers to install them in some or all of their vehicles. As experienced at a university, many employees of departments not part of the health promotion activity would like to be participants. However, they cannot gain the full

benefits until their units become involved and request introduction of the health promotion project.

Not to be forgotten, the last variable to the social system element is the **consequences of innovations** (Rogers, 1983). These occur to an individual or unit as a result of adoption or rejection of an innovation. Consequences are viewed as desirable or undesirable, which may vary between individuals. Also, the consequences may be direct or secondary and some as anticipated or unanticipated. Therefore, in spite of a general pro-innovation bias, innovations can have positive and detrimental impacts, and this perspective differs among adopting units. (See Brown, 1981; Rogers, 1983; and Spicer, 1952, for further review of this topic.) For example, release time from work is one element that may facilitate employee participation in health promotion activity. Unit supervisors that respond differentially to this can create tension and dissatisfaction among the employees towards their unit.

It is at this point that a planned change process is completed: innovation creation based upon known needs, a strategy for diffusing the innovation, and assessing the impacts. The history of innovation-diffusion has been built on the assumption of technological development and change as a positive good (Brown, 1981; Rogers, 1983; Spicer, 1952). The key was to bring about the desired changes. In many cases, and particularly in the early years, the outcomes--often found to be disruptive to the social and culture fabric--were not measured by the original protagonists of the innovation (Brown, 1981; Rogers, 1983). That was left to others (Spicer, 1952).

As stated earlier, much of the literature on diffusion of innovations has focused almost solely on the individual adopter. There is less understanding and a dearth of

quality research that studies the organization as a social unit that adopts innovations (Brown, 1981; Rogers, 1983). And, in most cases, the research focuses on the adoption of hardware technology (what it does and what it uses), and less on the software of social issues (how it operates and what it means).

Characteristics of Innovative Organizations

Earlier, innovation was defined as something perceived as new by an individual or other unit of adoption. The innovation needs only be new to the organization and not to the larger society. In order to build upon the differentiation of organizations from a single individual, though, an additional definition of organizational innovation will be used:

> Any proposed idea, or set of ideas, about how the organizational behavior of members should be changed in order to resolve problems of the organization to improve its performance (Gross, Giaquinta, & Bernstein, 1971, p.16).

Rogers (1983) points out that the model of innovativeness in individuals does not readily apply to organizations. The shift in the research focus has been away from reviewing a cross-section of studies to understanding the process of innovations in organizations. The purpose is to understand "the time-ordered sequence of a set of events" (Rogers, 1983, p. 356). From a process-orientation, several independent variables are identified by Rogers (1983) that relate to innovativeness in organizations. These are grouped as: 1) individual (leader) characteristics, and 2) internal characteristics of organizational structure.

Leader characteristics are represented by the general attitude toward change--as a positive relationship toward innovation. **Internal characteristics** are those tied to its structure and ability to maintain itself: **size, centralization, complexity, formalization,**

interconnectedness, and **organizational slack**. Greater size, as a variable, is positively related to innovativeness. It also, as Rogers points out, may be a surrogate for other indicators, such as total resources, slack resources, and organizational structure. High centralization--degree of power and control in the hands of a few--is negatively associated with the initiation of innovations but may be positively associated with their implementation. Next, complexity, "the degree to which an organization's members possess a relatively high level of knowledge and expertise" (Rogers, 1983, p. 360), is found to have strong relationship to the initiation of change. It is often measured by the range of occupational specialties and the degree of professionalism (formal training required). High formalization, in rules and regulations, is found to inhibit innovativeness. Interconnectedness, the linking by personal networks within the organization, favors innovativeness. And organizational slack, the extent to which uncommitted resources are available, is also positively related to organizational openness to change (Cyert & March, 1963).

Even though these characteristics can be selected from innovation studies, another problem results in that their association, while positive for initiation of innovation, tends to run negative during implementation (Rogers, 1983; Zaltman et al., 1973). The example cited by Rogers is that of low centralization, high complexity, and low formalization; these are helpful for innovation, yet make implementation more difficult.

A model of the innovation process in organizations has been proposed by Rogers (1983) than includes five sequential stages: agenda-setting; problem matching with the innovation; redefining the innovation and in restructuring the organization; clarifying the innovation fit; and routinizing the innovation into the regular activities. As

Rogers points out, though, there have not been enough good studies to be more precise about organizational innovativeness.

One can look back and make conjectures about organizational innovativeness. Knight (1967) and Knight and Wind (1968) note than innovations may appear in or are relevant to four aspects of the organization: 1) products or services of the organization; 2) production-process oriented (e.g., task systems or physical production processes); 3) organizational-structural innovations (e.g., decision making, incentive systems, Quality of Work Life, and matrix-type organizational structures); and 4) people innovations (e.g., creative decision making, use of behavioral rules for management practices, and health promotion at the worksite).

Zaltman et al. (1973) include policy innovation in this classification scheme: "major changes in the organization's strategies for achieving its major objectives" (p. 16). One example of an adopter incentive in the health field would be the use of financial incentives to increase behavior change, such as bonuses for ex-smokers to remain abstinent.

It may be possible to develop a schema that still uses the individual adopter categores and overlay it with the organizational aspects discussed above. See Figure 6 as an example.

	INN	E-AD	E-MAJ	L-MAJ	LAG
POLICY	B			A	
PEOPLE	B			A	
STRUCTURAL			B A		
PROCESS	A		B		
PRODUCT	A			B	

Figure 6: Matrix of Organization Systems and Innovativeness

It is projected that organizations can and will be innovative to differing degrees within each of these aspects. For example, a university scientific department (Example A in Figure 6) may be very innovative in those aspects related to task-orientation and production process but a laggard in introducing change with their administrative management, organizational structure and human resource development. At the same time, another department (Example B in Figure 6) may be innovative in people-oriented innovations and initiate the policies to support them, but it may also be further behind in task accomplishment.

CHAPTER THREE

WORKSITE HEALTH PROMOTION AS AN ORGANIZATIONAL INNOVATION

Overview

Health promotion in the workplace is a complex set of innovations, of increasing importance, that is being introduced into organizations. A problem arises when the organization resists adopting the innovations or simply introduces them with little forethought. Subsequently, there has been an interest in finding out how they can be better introduced and adopted.

This chapter addresses health promotion as an avenue for innovation and change. The first section reviews the historical development of health promotion and its current practice in worksite organizations. In the second section, four models used to introduce health promotion are discussed: general strategies, organization development, social marketing, and diffusion and adoption of innovation.

History and Practice of Worksite Health Promotion

Glasgow and Terborg (1988) state that there has been: "a virtual explosion of interest in occupational health promotion programs..." (p. 365) in the last decade. The general importance of worksite health promotion is remarkable because it represents an innovation that is a "win/win" situation for both employer and the employees. It is

a major concern for organization managers wanting to: 1) cut their health care costs (Edington, 1987; Glasgow & Terborg, 1988; Naisbitt & Aburdene, 1985; Terborg, 1986), and 2) invest in their human resource capacity (Edington, 1987; Sloan et al., 1987). Health promotion also is a critical issue for employees, as they change their lifestyles and place more expectations upon the workplace for services such as childcare, fitness facilities and insurance benefits (Naisbitt & Aburdene, 1985).

Worksite health promotion is a relatively recent social phenomenon (Klarreich, 1987). According to Conrad (1988), it is a particularly American phenomenon (a reaction to high costs of employer-paid health and medical benefits) in contrast to the European tradition of government providing more universal health care services. It grew from two roots: 1) the concept of general health promotion, which stems from the breakthroughs of biology and medicine in the late 1800s (Sloan et al., 1987), and 2) industrial recreation which reflect the paternalistic roles of some corporations.

Development of Health Education

Manoff (1985), in his review of health education eras outlined by Starr (1982), suggests three historical periods that defined concepts of health. The first, during the latter half of the 19th Century, focused on environmental sanitation and improvements in water supply, sewerage, and general sanitation. A second brief period of 20 years, ending in 1910, focused on germ sources of diseases. It utilized fumigations and quarantines as an environmental sanitation method without harnessing a disease-specific remedy. What Manoff calls "primitive efforts at disease prevention" (the third era) included routine medical exams and personal hygiene education around 1910.

Out of this simple beginning came the "single etiology theory" of disease (Sloan et al., 1987). Specific diseases were thought to be caused by a single germ or microorganisms. The best way to avoid catching a disease was to avoid contact with the source or carrier. Early efforts of the medical profession involved identifying the disease-causing organism and, then, later developing a vaccine for protection. On a broad scale, public health was quite effective for almost eradicating specific diseases--pneumonia, influenza and tuberculosis, for example--the three leading causes of death in 1900. Concurrently, the social and medical definition of health was equated with the absence of disease or illness (Klarreich, 1987; Sloan et al., 1987). Being healthy or ill became a clear indication of the presence of the germs or not. Medical and clinical treatment directed its primary effort at the suspected disease agents.

As long as health and disease were dichotomous states, only affected by contact with disease microorganisms, individual volitional behavior could only be directed at avoiding contacts (Sloan et al., 1987). This reinforced a lack of concern about health until one was sick. In fact, a persistent background attitude was in vogue, namely, that to be concerned about health issues (in the absence of disease) was to be narcissistic and self-indulgent (Sloan et al., 1987).

In 1946, the World Health Organization pushed the growing understanding of the relationship of the mind, body and environment a major step ahead. Health was defined as not just the absence of disease, but as "a state of complete physical, mental, and social well-being" (Sloan et al., 1987, p. 19). It became an ideal to strive for, but one that few could easily achieve.

Currently, health is better thought of as a continuum--a variable state of well-being--that will be at different degrees for each individual (Everly, 1985; Klarreich, 1987;

O'Donnell & Ainsworth, 1984; O'Donnell, 1987; Sloan et al., 1987). As this recent understanding of health was popularized, there was also greater understanding of the health affects of personal behavior and the environment. This also leads to more responsibility for health risks being directed at the individual for control.

It is in the current fourth era, as defined by Manoff (1985), that the emphasis has: "shifted to the preventive role of education as a behavior change strategy to modify diet and life-style (sic)" (p. 11) In this regard, the challenge not only involves providing education, but also establishing better methodologies to strengthen the spread and impact of healthier lifestyles.

Industrial Recreation

Parallel to the social welfare movement was the growth of industrial recreation, the term used to describe the leisure activities available to employees of business and industrial corporations (Neer, 1957). In one major sense, it provided one base from which business took the first major health promotion initiative. It had a history of providing recreation and fitness facilities prior to the "fitness boom."

One individual, William Tolman, claims to have brought the idea of "social secretary" (someone responsible for taking personal interest in the welfare of the workers) back from Europe in 1900 (Wilson, Wanzel, Gillespie, & Robers, 1979). The Young Men's Christian Association is one of the oldest wellness organizations when it became interested in providing recreation for industrial workers (Klarreich, 1987; Neer, 1957). A few forerunners were Metropolitan Life Insurance Company in 1894, and National Cash Register's building for employee recreation in 1891. More recent examples (in the 1960s) include: Texas Instruments, Timken Redler Bearing, Kaiser

Industries, Goodyear Tire, McDonnel Aircraft, and General Dynamics (Recreation Management, 1962, 1964).

Current Views of Health

It was noted that the major health improvements of the early twentieth century were directed at public health and sanitation conditions, which brought great returns in reducing disease and increasing lifespans. Currently, however, there are few remaining improvements in public health standards that would bring about any significant increase in lifespans.

Sloan et al. (1987) point out that the views of the basic sciences of this current era affect the contemporary views of health, just as much as the basic sciences did in the early years of this century. It is the relative presence of multiple and interacting factors--"risk factors"--that are now associated with varying potentials for illness (Sorenson, 1987). These major factors are known to include "biology, environment, lifestyles, and health promoting and restoring systems (medical and health care)" (Sloan et al., 1987, p. 20). Their interaction is best described as overlapping sets of factors, with interplay between the systems.

Understanding risk factors involves differentiating between controllable and uncontrollable risks. Sloan et al. (1987) state that this latter group includes those risk factors (e.g., age, sex, race, and heredity) that are not affected by any focused intervention. Yet, they and other authors (Matarazzo, 1984; Terborg, 1986) point out that the current ten leading causes of death in the U.S.--heart disease, cancer, stroke, accidents, chronic obstructive lung disease, pneumonia and influenza, diabetes mellitus, suicide, cirrhosis, and atherosclerosis--consist of a highly disproportionate level of

controllable risk factors (e.g., weight, level of exercise, smoking behavior, and nutrition). These illnesses have been referred to as "chronic diseases of lifestyle"--affected by behaviors under control of the individual (Ardell, 1985; Sloan et al., 1987). The solution for increased health is said to be increasing individual responsibility, bringing about environmental change, and understanding the social and economic factors that, together, encourage and maintain the behaviors at risk (Rosen & Solomon, 1985).

The Focus of Health Promotion

Health promotion focuses on those risks that can be modified by individual risk factor behaviors and associated environmental conditions. It is a directed shift toward a greater state of health, by improving or eliminating controllable factors, and trying to offset the uncontrollable ones (Sloan et al., 1987; Terborg, 1986; Walker, Sechrist, & Pender, 1987).

As might be suspected, there have been two major approaches to health promotion: 1) focus on the risks external to the individual, and 2) focus on the individual level as target for change (Sloan et al., 1987). Since the late 1800s, public health measures have primarily focused on environmental conditions that are not under the control of any one individual. More recently, regulatory agencies at all levels of government have provided minimum standards for environmental health and safety (Feldman, 1985; Stellman & Snow, 1986). The most common of these include food and drug standards, standards pertaining to health and safety in the workplace, and standards for highways and public transportation. It is noted that these measures, being tied to external conditions, do not require any significant behavior change on the

individual's part. Also, the standards are fairly objective, measurable in most situations, and are widely accepted.

On the other hand, Sloan et al. (1987) note that changes introduced at the individual level are directed toward a fairly well defined set of controllable risk factors (e.g., obesity, smoking, hypertension, stress management, physical fitness, diet and nutrition, and cholesterol levels). It is at this level that health promotion is trying to break "the chain of negative habits," instill change, and support new behaviors. What becomes problematic is that, while these factors have related behavioral measures, there is less common acceptance about how to introduce them to individuals operating in complex and changing environments.

Sloan et al. (1987) outline four different levels of strategies used to promote health. The first and most basic is simple **awareness**--trying to create awareness of the linkage between behaviors and increased risk for disease. Some examples of these are warning labels on cigarette packages, public service announcements, and safety labeling on food and drug items. The second strategy level extends beyond the awareness messages and includes simple, **structured opportunities** to support and reinforce those changes. Examples of this are the "Great American Smokeout," sponsored by the American Cancer Society each November, and the immunization clinics provided by county health departments. Level three has greater emphasis on **motivating and supporting behavior change** by more highly structured interventions. It is thought, at this level, that the threat of illness and the subsequent opportunities are not enough motivation to induce change. Accordingly, there is greater use of rewards, incentives, and support mechanisms. Examples include reduced insurance

rates for health-related behaviors, such as wearing seat belts or not smoking, and community weight loss programs that become continuing support groups.

The last strategy level involves **reinforcing behavioral changes that become mandated through policy and laws** (Sloan et al., 1987). These are usually directed at only those behaviors where there is clear linkages of the behaviors and increased health risks. Recent examples include mandatory helmet wear for motorcyclists, seat belt use in passenger vehicles, and restrictions on smoking in public areas and government buildings.

Recent Growth of Worksite Health Promotion

As spelled out by Sloan et al. (1987), worksite health promotion is the integration of the concepts of general health promotion applied to the workplace setting. Often, it can extend beyond the employees and include the organizational and managerial parameters of work, as well as their families (Parkinson, 1982; Sloan et al., 1987; Weiss, 1985). The implications of this--the ways that organizations manage and motivate their employees (a traditional prerogative of individual supervisors)--is as important to consider as the individual employee's commitment to healthy behaviors.

There are a variety of terms that are in vogue, all fairly synonymous, and used interchangeably in describing health promotion in the workplace: "worksite health promotion," "wellness in the workplace," "health enhancement programs," "employee wellness programs," "employee health management programs," and "occupational health programs" (Everly & Feldman, 1985; Klarreich, 1987; Terborg, 1986; Wolfe et al., 1987). Their commonality ties the individuals (i.e., their health behaviors) to the workplace environment--both as potential targets for change. Everly (1985) sums this best with

his definition of occupational health promotion: "striving to improve personal health from the individual's perspective, while striving to improve the human resource from the organization's perspective" (p. 12).

In most instances, the major attention is given toward individual behavior changes that reduce risk factors for disease. The four basic strategies of general health promotion have similar applications in the worksite (Sloan et al., 1987). Worksite organizations have the advantage of being able to leverage their forces in a line with those strategies: 1) **Promote awareness and provide information**. Worksites utilize a variety of means to disseminate information, including workshops and lunch-time seminars on a variety of health-related topics, newsletters, booklets, and envelope stuffers in order to reach most of their employees (Sloan et al., 1987). 2) **Provide information and opportunity**. The worksites can provide opportunity by tapping into an externally developed, ongoing activity (such as the Great American Smokeout) or, for example, they can bring nurse clinicians into the worksite for blood pressure and cholesterol screenings (Sloan et al., 1987). 3) **Support behavior change**. Increased attention may be given to motivating employees and stabilizing the changes made (Parkinson, 1982). This includes, among others, comprehensive programs (a variety of health program topics), financial incentives (a system of cash and nontangible rewards to recognize positive changes), and flex-time (flexible work schedules) (Sloan et al., 1987). 4) **Administratively support the change**. A clear advantage of the worksite is brought forth when addressing this last strategy level--reducing health risks through policy and regulation changes. It is well within their domain for worksites (i.e., their managers) to prescribe and enforce limits to certain behaviors that reduce health risks. Some examples found to be used include mandatory seat-belt use in company vehicles,

hiring only non-smokers, and improving cafeteria and vending machine choices. The next major step beyond administrative support--one not experienced much--includes changes in values, work environment, and managerial behaviors (Sloan, 1987). In many authors views (Matteson & Ivancevich, 1979, 1987; O'Donnell & Ainsworth, 1984; Orlandi, 1986; Sloan et al., 1987; Terborg, 1986), it is this last unheralded step that is crucial to the true long-term payoffs of health promotion. It will be referred to, by this author, **organizational learning for health**.

Benefits of Worksite Health Promotion

As Terborg (1986) and Sloan et al. (1987) elaborate, worksite health promotion programs are based on three basic assumptions: 1) levels of health fitness are affected by people's attitudes, beliefs, and habits toward diet, exercise and smoking; 2) health promotion in the worksite settings are more effective in improving lifestyles and health than those undertaken in clinical or community settings; and 3) those who participate in organization fitness/wellness programs and are physically and psychologically healthy will use less medical care resources and will perform better at their jobs.

As indicated, the relationship of lifestyles and behaviors to health, fitness, and wellness is well recognized (Glasgow & Terborg, 1988; Iverson, 1986; Matarazzo, 1984; O'Donnell & Ainsworth, 1984; Terborg, 1986). Evidence is also being reported that worksite programs are at least as effective, if not more effective, than those held in clinical or community settings (Fielding, 1984). Terborg (1986) indicates that "the jury is still out on this one"; more evidence is needed before it can be unequivocally stated that worksites are effective delivery locations. More recently, a review of research suggests that, for some health risks (e.g., hypertension), worksites are more effective,

while they are quite comparable in other areas, such as for smoking control (Kleges et al., 1988; Mullen, 1988; Shipley, Orleans, Wilbur, Piserchia, & McFadden, 1988).

It is with the third assumption--program participants that lead healthy lifestyles will utilize health care services less and will be more productive--that the research is weakest, often anecdotal (Terborg, 1986). Yet, a most touted aspect of worksite health promotion is that the worksite organization will accrue the benefits of having a healthier workforce through greater productivity, better morale, higher satisfaction, and better commitment to the organization (Falkenberg, 1987). As Terborg and others (Everly & Feldman, 1985; Fielding, 1984; Greenawald, 1987; Sloan & Gruman, 1988) report, however, there is little empirical evidence to substantiate the benefits because: 1) many organizations do not take the time for record keeping and systematic evaluation; 2) a "pro-innovation" bias is held by implementers; 3) a commitment to health promotion is often simply measured by participation rates; and 4) there is the need for a number of years to pass before long-term outcomes can be observed (e.g., relationship of health care costs to lifestyle and health changes).

Other authors (Higgins, 1988; Sloan & Gruman, 1988; Warner, 1987) report that health (i.e., a concern for human resources) is the principal benefit of health promotion programming. They encourage a focus on measuring cost-effectiveness of programs over a short-term reliance on reducing health care costs. Maybe this is the best that can be said at this point in time. Still, all in all, a survey of Fortune 500 companies found that two-thirds of the respondents provide worksite health promotion programs and most of those are planning on future expansion (Hollander & Lengermann, 1988).

Models for Introducing Worksite Health Promotion

While many authors propose general methods to introduce health promotion into worksites (Parkinson, 1982; Sloan et al., 1987), two authors--Edington (1987) and Orlandi (1986, 1987)--primarily conceptualize it in terms of being an **innovation.** According to Cummings and Morhman (1987), most authors tend to follow a general pattern of innovation-adoption: stimulate interest for change, select appropriate interventions, and instill the change within the adopting organization. This viewpoint, according to the authors, "tends to treat innovations as clearly-defined entities that simply can be adopted by organizations" (Cummings & Morhman, 1987, p. 277) Three weaknesses--not understanding health promotion as a unique innovation, following the general innovation-adoption assumption, and not fully understanding the organization as a key actor in that process--may impede the adoption of health promotion innovations.

This innovation-adoption relationship is thought to be affected by three primary factors: 1) the characteristics of the organization; 2) the characteristics of the innovation; and 3) the intervention strategy used to integrate the innovation with the organization (Cummings & Morhman, 1987; Orlandi, 1986; Rogers, 1983; Sloan et al., 1987).

Most of the research has focused on the first two of these main factors--characteristics of the organization and characteristics of the innovation (Cummings and Morhman, 1987) both of which were discussed in chapter two. The intervention strategy is interjected as a third factor because it represents the linkage mechanism (process) that melds the other two (Cummings & Morhman, 1987; Frederiksen, Solomon, & Brehony, 1984). This third factor will be reviewed next.

A variety of models have been used for introducing health promotion into worksites. Most fall into four categories--each with very different perspectives. They will be reviewed as: 1) general strategies for health promotion; 2) organization development; 3) social marketing; and 4) diffusion of innovation.

General Strategies for Health Promotion

O'Donnell (1987) and Parkinson (1982) outline five elements to a health promotion program design: 1) assessment of needs; 2) setting priorities and objectives; 3) organizational location; 4) implementation strategies; and 5) identification and allocation of resources. Evaluation is included as an equivalent design consideration to measure long-term and short-term effects. **Needs assessment** is often first done with a questionnaire survey, known as a health risk appraisal (Parkinson, 1982; Schoenbach, 1987; Wagner, Beery, Schoenbach, & Graham, 1982; Walker et al., 1987). These are simple predictors of risk based upon the individual's sociodemographic characteristics and lifestyle habits.

The organization and program providers set their **priorities** based upon current needs (prevalent risks in the employee population) and their own objectives (from increasing awareness to changing behaviors). Priorities can include: 1) the **perceived need** for the programs by employees (what they want); 2) the **prevalence of risk** among certain employee populations (e.g., back-care programs for blue collar workers); 3) **current health habits** (such as smoking cessation for identified smokers); 4) **sociodemographic characteristics** (e.g., preventive breast cancer and testicular cancer programs for female and male workers, respectively); and 5) **physiological indicators** of

risk (e.g., hypertension programs for employees with high blood pressure) (Cataldo & Coates, 1986; Parkinson, 1982).

Organizational location is concerned with the internal unit that will house and administer the programs. In industry and universities, these often are included in the medical, benefits, or personnel departments. The method of implementation, according to Parkinson (1982) and O'Donnell (1987), must consider the previous decision of location within the organization, the type of educational approach, and further, it must consider the availability of resources.

Allocation of resources is the last major design element specified by Parkinson (1982). Questions are raised as to the availability of staff--medical professionals, health educators, behavioral psychologists, and exercise physiologists--from inside the organization. It becomes a major cost consideration to either contract with outside consultants or redefine job orientations of internal staff. Another consideration is the availability of meeting space and exercise facilities--whether these are provided within the organization or at another location.

What may be apparent is that the discussion, so far, has been biased from the view of the large industrial corporation. Many of these may, and often do, have an in-house medical staff, may have built a fitness facility, and can arbitrarily decide to introduce health promotion without other elements of the organization being involved (Terborg, 1986). This perspective represents the core experience with worksite health promotion up to this time. Examples include: Johnson and Johnson, Kimberly Clark, Control Data, AT&T, Tenneco, IBM, Franklin International, Metropolitan Life, and Pepsico (Conrad, 1988; Parkinson, 1982; Tampson, 1988). In order to institute health promotion programming, smaller organizations must rely on outside services, such as the American

Red Cross and the American Cancer Society (Terborg, 1986). For any size organization, the question is often left vague regarding to whom and how health promotion is to be actually introduced, implemented, and integrated into a worksite. There is a multitude of descriptions of how to design and evaluate programs for effectiveness (Cataldo & Coates, 1986; Everly & Feldman, 1985; Hendrix, Leap & Steel, 1986; O'Donnell & Ainsworth, 1984; Parkinson, 1982; Windsor et al., 1984). The missing element is the **linkage between the idea and the user**.

Organization Development and Health Promotion

Organization development has its roots in three different backgrounds. The first of these is from "sensitivity training" (T-groups) in the late 1940s and 1950s. Originally developed by Kurt Lewin for a laboratory setting, it became widely used as a group problem-solving and individual behavior feedback mechanism (Huse & Cummings, 1985; Bolman & Deal, 1984). The second movement also included Lewin in 1946, and promulgated the use of "survey research feedback" (Huse & Cummings, 1985; Bolman & Deal, 1984). The third development started in Europe in 1950 as the "quality of work life" movement--promoting the use of self-regulating work groups to design and monitor their own task performance (French & Bell, 1984; Huse & Cummings, 1985).

Organization development interventions are classified by the nature of the change targets: 1) **human process interventions** include communication, problem solving, leadership and social dynamics of the organization; 2) **technostructural interventions** include work flow, design and methodology, and formal roles; 3) **human resource management interventions** are related to personnel functions of reward systems and

career planning; and 4) **strategy interventions** are used to gain resource advantages in a competitive environment (Huse & Cummings, 1985). It is not proven which organization development intervention works best under what conditions (Bolman & Deal, 1984; Huse & Cummings, 1985; Organ & Hamner, 1982). Bolman and Deal (1984) even say that OD may not be the best solution to human resource problems, but it is about the only solution.

With its roots in T-groups and group feedback sessions, OD has been most closely identified with interpersonal processes and human relations (French & Bell, 1984). Change agents, from a variety of social science disciplines, are criticized for using it as a fallback to a single solution for all organizations. Bolman and Deal (1984) say that the human resources approach may be too optimistic in assessing human nature. It may not be possible to gain the congruence between the individual and the system. Hersey and Blanchard (1982), as well as Bolman and Deal, indicate that any organization development effort has about a 50% chance of success. This is particularly due to the strong reliance on the primary interpersonal collaborative approach, particularly when the problem may be of a technological or political nature.

According to situational leadership theory, most organizations operate at a level of low maturity--unable to direct change and unwilling to try it. The problem of the organization development change agent is then structural and directive--to shift the organization to a more mature state (Hersey & Blanchard, 1982). In fact, some authors state that the organization must be at a "state-of-readiness" before OD should even be implemented (Huse & Cummings, 1985; Pfeiffer & Jones, 1978). Organization development is more amenable to those organizations that perceive a need to change

or, at least, have had positive experience with change processes (Bullock & Svyantek, 1987; Pfeiffer & Jones, 1978).

Organization development is most closely associated with the action research methodological model. Action research, according to Huse and Cummings (1985) and Hellriegel, Slocum, and Woodman (1986), involves collaboration between the change agents and organization. It relies on organizational diagnostic skills, data gathering, feedback to members, and action steps. Thus, it is important for members to become **participants** in the change process, often through internal leadership task forces that will continue the change processes after the external change agent has left the organization (French & Bell, 1984; Tornatzky, Fergus, Avellar, Fairweather, & Fleischer, 1980). Once involvement is maintained the members often create their own internal pressures for change. Burke's (1982) seven-phase model of OD practice, an extension of action research, is a commonly used intervention model: 1) **entry** as the initial contact between the consultant and client--to explore a working relationship and assess client readiness for change; 2) **contracting** as the statement of agreement of what each party intends to do--ground rules for operation; 3) **diagnosis** as gathering and analyzing information--through initial observations, intuition, and systematic methods and interviews; 4) **feedback** as holding meetings with the client system, managers, and employee groups--for discussion and interpretations; 5) **planning change** to generate alternative steps--to respond to problems and determine action steps to take; 6) **intervention** as the action steps to take--individual, group, and organizational levels; and 7) **evaluation** as the objective and systematic review of actions taken and analysis of future steps--renewal or withdrawal of relationship.

As a summary, the primary thrust of OD is guided by a change agent, either an external consultant or an internal member, trained in OD processes. It builds capacity for change, by offering alternatives for internal decision makers, not by issuing directives (Tornatzky et al. (1980). French & Bell (1984) and Hellriegel et al. (1986) state that it is not meant to be a single technique. Rather, it is a series of techniques: 1) it is self-directed change focused on problems identified by members; 2) it is a system-wide effort; 3) it solves immediate problems and prepares members to solve the future ones; 4) it is based on action research, with its emphasis on collaborative efforts; and 5) it often leads to new patterns of organizational structure and communication.

Organization Development Applications to Health Promotion

Up to this time, the reported use of OD as an intervention strategy does not have a strong research base. Sloan et al. (1987) suggest it as a strategy to create "healthy organizations". Others (Ivancevich & Matteson, 1980; Matteson & Ivancevich, 1987; Kryder, 1988) are strong proponents of the necessity to integrate worksite health promotion with human resource management and OD as a means to improve the health of workers and the work environment. Robert Allen, either singly or in combination with others, had prolific experience and writings on assessing community and organization norms and factors that support health behavior change (Allen, 1980; Allen & Allen, 1986, 1987; Allen & Kraft, 1982; Allen & Linde, 1981). Allen's primary focus is on those organizational norms that support negative health behaviors and develop a positive "organizational health culture"--supportive of individual health behaviors. While providing a variety of assessment instruments for measuring health norms in organization settings,

there is little evidence in the literature on the reliability and validity of these normative-based systems instruments and techniques.

Currently, worksite managers have been receptive to applying health promotion concepts to stress, most of all--trying to understand the linkage of organizationally imposed stressors and health outcomes (Adams, 1978; Adams, Fischer-Quigley, & Schmithorst, 1985; Matteson & Ivancevich, 1987). The carry-over of this new learning, hopefully, will manifest itself into other aspects of health promotion in the worksite.

Shain et al. (1986) and Wallerstein and Bernstein (1988) keep us aware, though, of the importance of understanding the power that the OD approach can have on empowering employees to expect and work for other changes. This becomes the ultimate strength--and threat--of integrating OD and health promotion. Even by itself health promotion activity is thought to empower people to be more in control of their health habits (Terborg, 1986).

Social Marketing and Health Promotion

Social marketing is a recent phenomenon in the field of marketing. The name can be traced back to two articles, both co-authored by Philip Kotler, a leading writer on management principles. The first, with Levy (1969) and entitled: "Broadening the Concept of Marketing," built a case for applying traditional (business) marketing principles to nonbusiness issues. In extracting Weibe's (1972) question--first asked in 1952--whether "brotherhood can be sold like soap", Kotler and Levy were pushing marketing professionals to apply their skills to a broader range of social activity. It was their tenet that marketing can be applied to all organizations, because they have customers and have some type of products.

The other breakthrough article was entitled "Social marketing: An approach to planned social change" by Kotler and Zaltman (1971). It expanded the horizon for thinking of social marketing as a distinct area in general marketing theory (Bloom & Novelli, 1981; Fox & Kotler, 1980; Manoff, 1985). It is here that the commonly used definition of social marketing was first introduced by Kotler and Zaltman (1971): "Social marketing is the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving consideration of product planning, pricing, communication, distribution and marketing research" (p. 5).

Some early detractors of social marketing did not want to break away from the traditional view of marketing represented by "exchange of money for goods and services" (Luck, 1969 and 1974). But Fox and Kotler (1980) reemphasize that social marketing is marketing applied to socially beneficial ideas and causes, instead of products and services. They further indicate that it is often synonymous with "social cause marketing", "public issue marketing", and "social idea marketing".

Fox and Kotler (1980), in their review of the accomplishments of the first 10 years of social marketing, state that the results are too few to create a good database, and that many previous efforts cannot be distinguished from social advertising and social communication. Two successful efforts they discuss were involved with family planning and motivating healthier life styles. The family planning programs described were all in other cultures and included a combination of channels, such as literature, mass media with newspapers, television, radio and films (Fox & Kotler, 1980; Rice & Paisley, 1981).

For the purposes of this study, marketing will not be limited to the definition of social marketing, but it will more closely follow a services marketing orientation. This

will include all the nontangible products identified by Fine (1981) and those of Kotler and Levy (1969).

In summary, marketing utilizes a multi-step research process and a set of activities directed at satisfying customer needs and wants. It is more than selling or promotion; it involves a complete orientation to the customer.

Social Marketing Applications to Health Promotion

Health care facilities (e.g., hospitals, insurance companies, and health maintenance organizations) have used marketing research to increase their market-share of the health services purchased by the public (Scott & Stravic, 1986). But there are few models of successful marketing for health promotion in the United States (Manoff, 1985). At the same time, marketing of services is said to be a necessary component to a successful health promotion program (Chenowith, 1986; Sloan et al., 1987).

Shain et al. (1986) state that the Johnson and Johnson "Live for Life" Program resides in the context of social marketing theory. It draws its strength in using marketing research to: 1) introduce the health promotion idea to individual managers; and 2) assess employee needs as the basis for programming (Wilbur, 1983; Wilbur, Hartwell, & Piserchia, 1986). In a recent study of one aspect of that same program (smoking), Shipley et al. (1988) report a major improvement in stop smoking behavior due to the Live for Life Program. It is not known what importance marketing played in this intervention.

Two other reports of marketing interventions to implement health promotion in this country are with the "Stanford Heart Disease Prevention" Program (Manoff, 1985;

Solomon, 1984), and the "National High Blood Pressure Education" Program (Ward, 1984). In most cases, the most noted and publishable results lie not so much in measurable outcomes as in determining that the health behavior changes can be put into marketing terms (For a review of the subject, see: (Dunn, 1987; Rosenstock, 1982; Solomon, 1984; Ward, 1984). See Fredericksen et al. (1984), Manoff (1985), and Quelch (1980)).

Diffusion and Adoption of Innovations

As stated earlier, one major purpose in this chapter is to discuss health promotion as an organizational innovation.

Innovation in organizations usually requires types of innovation-decisions to be made that are beyond the realm of the individual. Collective and authority innovation-decisions are the types that entail the organization as the social system in which the innovation occurs. As Rogers (1983) indicates, the study of organizational innovation shows that the decision to adopt an innovation does not imply that it is implemented. The innovation process in organizations is much more complicated, due to a greater number of decision-makers.

Aside from these problems, a model of the organizational innovation process has been proposed by Rogers (1983) and Zaltman et al. (1973) as consisting of two principal steps: 1) **initiation**, and 2) **implementation**. Within initiation, **agenda-setting** is included as the first stage, even though it is not unique to innovation. It is a constant process that organizations undertake to scan their environment for new technologies and processes to meet some need--a performance gap--and to resolve it. The innovation process can be either started by the presence of a discrepancy (problem-

initiated) or by induced awareness (innovation-initiated). **Matching**, as the second stage, combines the innovation with the problem for a degree of fit. Together, agenda-setting and matching comprise initiation--all the steps leading up to a decision to adopt (Rogers, 1983).

Implementation, according to Rogers (1983), incorporates "all of the events, actions, and decisions involved in putting an innovation into use" (p. 364), and it consists of three stages: **redefining-restructuring**, **clarifying**, and **routinizing**. In the first instance, redefining-restructuring (re-invention) recognizes the need to fit the innovation into the organization. Sometimes, some aspect of the organization is modified to utilize or manage the innovation (e.g., a new data processing unit becomes responsible for computer utilization and information technologies). Clarifying, as the next stage, represents the learning that individuals undergo and the institutional arrangements made to incorporate the innovation. And, finally, routinizing occurs when the organization incorporates the change into its regular activities, and it loses its separate identity--into the organizational subconscious (Allen & Kraft, 1982).

It has been proposed in these sections that organizations, as collective and authority innovation-decision makers, go through an innovation process (initiation and implementation) that is affected by characteristics of the organization. In many situations, this process must be instituted before individuals have the opportunity to adopt and implement the innovations. This is most applicable to health promotion innovations in the workplace, the next topic of discussion.

Diffusion of Innovation Applications to Health Promotion

Health promotion has been described as a recent invention that underscores a preventive approach to personal health and well-being (O'Donnell & Ainsworth, 1984). It arose from the convergence of four changes in themselves: 1) medical science identifying health risk behaviors that are related to lifestyle diseases; 2) a desire to reduce health care costs by employer organizations; 3) a concern for employee health and the organizational imposed health risks; and 4) socio-cultural readiness for individuals to become involved with managing their health status and lifestyles. Health promotion denotes a sense of active participation in the process and greater control over one's behaviors and lifestyle--a salutogenic approach (Antonovsky, 1984).

The idea of preventive health is not a new phenomenon, but it has not had many proponents from the health-care establishment. Principally, it has represented a threat to a profession built on healing isolated diseases (Orlandi, 1987). It is often presented as a wellness continuum--away from sickness or one evil, neutral stages of non-sickness in the middle, and transforming into positive states of well-being on the other end. As will be discussed, health promotion is relatively new to the primary stakeholders identified in Chapter One: the employing organization, the employees, and the provider (Orlandi, 1986).

Health promotion has, in many cases, been offered as a set of free-standing behavioral change packages that are ready made for all audiences. Yet, positive outcomes have been associated with those that adapt themselves to the needs of the individual and the organization. One example, stress management, has often been showcased as a short (one hour to one weekend) management training workshop (Adams et al., 1985). The recognition now is that better management of the

organization as a stressor (how it manages and treats people) needs to be factored into the stress management programs as much as simply providing coping skills for accepting greater levels of stress. Also, health promotion programs, that have traditionally been designed for a white-collar, middle class audience, must be re-directed toward audiences with differing lifestyles, implementation skills, and needs (e.g., blue-collar workers, minorities, and shift workers). (King, Carl, Birkel, & Haskell, 1988; Tampson, 1988).

Health promotion, in all its manifestations, represents an interrelated but recognizable set of components. While often thought of as buying into a singular concept or idea, the behaviors it require of both individuals and organizations are complex. It can be assumed that both levels have varying: 1) interests in the phenomenon; 2) knowledge of the innovation; 3) skill levels and abilities to implement it; and 4) desires to commit themselves (i.e., resources of time and money) to change.

And, at the individual level, health promotion requires: 1) behavior changes specific to different risk factors; 2) a supportive environment both at work and at home; 3) ability to maintain the change once initiated; and 4) self motivation in lieu of a supportive environment.

In contrast, the organizational level calls upon a range of skills and resources to first initiate and implement the innovation. As Orlandi (1986) first stated, health promotion is not a normal agenda item for organizations. And it is "agenda item" that is the first stage for organizational innovation (Rogers, 1983; Zaltman et al., 1973). The organizational readiness to accept and commit to the new idea is affected by its reasons for initiating health promotion, either cost-containment or human resource enhancement.

From this flows a set of steps, or decision-clusters, that the organization must face in order to implement it:

1. At what level is the health promotion directed (e.g., executives, staff, all workers)?
2. Is health promotion a fringe benefit or an important aspect for improving the general health of employees?
3. Does the commitment require providing time-off from work or the employee's own time?
4. Are employees to be involved in the decision-making for program start-up?
5. Is the organization willing to provide incentives (extrinsic and intrinsic) to recognize personal changes and for improving their attendance and productivity?

Possibly the greatest change the organization must make is whether it will change itself to be more supportive and less deleterious to employee health status.

In all cases, the institutionalization of a **preventive innovation** (a long-term innovation without knowledge of certainty of consequences if not done) is a major step at both levels (Quelch, 1980; Rogers, 1983).

Change Model as Innovation

Probably a last item to consider is that the models used to introduce the changes, such as health promotion, may be innovations in themselves. The general introduction of health promotion has relied upon experience and anecdotal evidence. Manoff (1985), Kotler and Levy (1969), Kotler and Zaltman (1971), and Quelch (1980)

all recognize that marketing--particularly social marketing--when applied to non-tangibles and value-laden issues, represents an innovation to users of the technique and to non-business organizations.

It is expected that organizational users of OD techniques will have some familiarity with change processes (French & Bell, 1984; Pfeiffer & Jones, 1978), but that is not true in all cases. Tornatzky et al. (1980) use the opportunity to create a more OD amenable activity by initiating participative and leader directed change steps. Defining health promotion as an innovation represents a new idea, in itself--one worth studying and understanding from a diffusion of innovation perspective.

CHAPTER FOUR

FIELD RESEARCH IN ORGANIZATIONAL SETTINGS

Overview

This chapter provides structure and reasoning for the methodology used in this study. First, there is a review of the research questions that need answering in this study. The second section provides an overview of qualitative research methods. Following that, in the third section, is a description of the research methodology, including the data collection steps, interview protocols, and analytical procedures. The chapter concludes with a discussion of methodological issues that may be of concern and the definition of terms used in the study..

Research Questions

The research was guided by major inquiries that have practical significance for health promotion advocates. It may provide a new "handle" for grappling with the organizational situation. Viewing it as a cultural issue puts some definition and boundary around it, even though "culture" can be an elusive concept.

At the beginning of this study, it was stated that exploratory research was needed to: 1) understand the cultural system(s) present in complex organizations, such as academic work environments; and 2) identify cultural factors in organizations that

influence the adoption of complex innovations, health promotion in particular. These foci become the basis for the research questions that guide this study.

The Research Questions

There were three general, interrelated research questions that guided the inquiry into the culture of this academic organization. Each is described below.

1.) Can academic work environments be understood as cultural systems?

To assume that each organizational unit has a unique culture means there are features that vary among them. How to identify those features becomes a central concern at this stage. In many respects, to be an outsider, to gain entry, and to focus on those aspects of an organization that provide clues to its culture is to be an "intruder". The very act of being there will help assess the organization's response to intrusion from the outside. This will involve steps in learning how the academic unit manifests its culture internally to its members and externally to its publics (stakeholders).

2.) Can sub-cultures in work environments be identified and understood?

In contrast to traditional bureaucratic structures, academic units have a unique style with fairly distinct lines between the primary groups: faculty, staff and students. As a result, sub-cultures may exist along these lines, or they may develop around a host of other indices that can be drawn (e.g., professional-scientific distinctions, natural work groups, academic disciplines, administrative functions, or gender).

Sub-cultures that serve divisive or negative purposes can be found as stimulating or problematic. On one hand, multiple cultures can improve "esprit de corps" among groups and promote identity. Cultures can serve stabilizing and self-maintaining functions or, on the other hand, they can be dysfunctional and "out of touch". This will involve looking at the processes by which the organization attempts to remove ambiguity when changes are introduced. Tighter management control is often one of those mechanisms.

3.) Does the nature of the worksite culture or its sub-cultures influence the adoption of innovations?

Health promotion activity that is perceived as not relevant to the primary purpose of the organization can experience varying levels of receptivity. It is critical to understand these differences when the innovations are distressed, programmed, or nonprogrammed. Programmed innovations are those that are expected or can be planned in advance. One example might be a university's medical staff performing the functions otherwise performed by outside health promotion consultants. Non-programmed innovations are those non-routine changes introduced under stress conditions in order to survive, or with slack resources when options are greater (Zaltman et al., 1973). Each organization is going to respond differently to unknown intrusions, such as health promotion, particularly when the external environment is sending mixed signals as to its value. Also, employees in an organizational unit that normally encourages employee participation in decision making may have greater resistance to health promotion changes that are perceived as being forced upon them.

Also, there are variations between each organization and each health promotion program that need to be understood, particularly in those situations where the complexity may be more in perception than reality. Compatibility reflects a level of "fit"--at least in the early stages of adoption--between the innovation and the organizational culture that must be assessed. It is the issue of compatibility that provides the core of the concern for goodness-of-fit.

Precedents to Qualitative Research

This section includes a review of the background of qualitative research. The rationales for the case study and using an ethnographic approach are discussed.

The Case Study Approach

Under the aegis of a case study of a single worksite organization, the primary data collection techniques utilized in this study are ethnographic in character. As noted by Dickinson (1988), case studies are especially useful for exploratory research "because they allow in-depth penetration of the realities of the particular case, and thereby reveal important insights pertinent to subsequent theory-building research" (p. 229). While less concerned with the generalizability of its findings, the case study approach can reveal important hypotheses and issues that might otherwise remain dormant (Babbie, 1983; Glaser & Strauss, 1967; Patton, 1978). The case study can be most relevant for understanding organizational cultures that serve multiple functions and operate on oft-hidden assumptions.

Yin (1984) suggests that the case study has distinct advantages when: "A 'how' or 'why' question is being asked about a contemporary set of events, over which the investigator has little or no control" (p. 20). The "what" questions are: 1) concerned with the incidence and prevalence of a phenomenon, 2) more favorable to survey and archival strategies, and 3) suitable for descriptive and exploratory purposes.

This study looks at one university academic department--as a primary worksite--that was among a number of recipients of a comprehensive worksite health promotion program. The academic unit for this study was selected on the following criteria: 1) **accessibility** (interaction with its members indicated it would be more open to study than others involved with the health promotion project; 2) **unit complexity** (the academic department was formed through a series of mergers and was expected to provide internal comparisons; and 3) **researcher experience** (the researcher's background similarity was expected to provide greater understanding of the member's background.

The Ethnographic Approach

Ethnography is a fundamental manifestation of anthropology as a way to study and understand culture: "the science--and art--of cultural description" (Frake, 1983). In fact, that is the principal aim of ethnographic research: "to discover and describe the culture of a people or an organization" (Dobbert, 1982, p. 39). Ethnography is a "culture-studying culture" that incorporates research techniques, ethnographic theory, and a body of descriptions (Agar, 1980). Dobbert describes culture as being found in the **patterns** of the setting. Frake (1983) says it is found in the **doings** (and sayings) of people. As an inductive mode for understanding cultural meanings, the search is for

structure from the member's perspective. It searches for "thick description" (Geertz, 1973, Frake, 1983). This inquisitive mode is in contrast to a "structure imposing" framework--a more objective approach. This latter type is often used for cross-cultural comparison in which the research fits the description of cultural "patterns" and "doings" into "categories preconstructed by investigators who, in their scientific sophistication, know better than the natives what the natives are doing" (Frake, 1983, p. 61).

The ethnographic approach is rooted in the anthropological paradigms that provide its strengths: 1) it is field-based (researcher dwells among the people being studies); 2) the entire person is used as the primary instrument of research (data are filtered through the researcher's five senses and personality, cognitive models, and data collection instruments); 3) a natural history approach is used (careful observation, guided by informed questions and followed by generalizations based upon grouping of observed facts, and then testing through observation); 4) a cross-cultural frame of reference is used (insights can be drawn from other experiences); and 5) the concept of culture is central (Dobbert, 1982). This approach emphasizes that culture "resides in the thinking of natives" (Frake, 1983).

If there seems to be any problem with qualitative methods, it often manifests as collecting too much information (Dobbert, 1982), or at least collecting more than can be used (Patton, 1980). As Dobbert (1982) indicates, however, it is better to err on the side of breadth than not know enough about the cultural context, both internally and externally. The primary way to deal with the problem beforehand, then, is "bounding the problem"--to narrow the focus and study only the relevant aspects of the culture and context (Agar, 1980; Dobbert, 1982). Otherwise, one would be wrapped up in a never-ending holistic description of an ever-changing phenomenon. The outcome

of a good ethnographic study is a written report of the attempt to integrate data recording techniques, methods of analysis, and theory (Agar, 1980). The **outcome of a good ethnographic statement** is an assertion about the nature of the culture being studied (Frake, 1983). The two broad **purposes** of ethnography, according to Spradley (1980), are to: 1) narrow one's focus in order to examine cultural details, and, at the same time, 2) maintain a sense of the whole in its broader contexts.

Organizational Ethnography

Participant observation and naturalistic study in organizational settings are a relatively recent application of ethnographic concepts. Some examples of these are Bogdan (1972), Dobbert (1982), Feldman (1986), Miles (1987), Sanchez (1987), and Schein (1985). It is to the credit of Jones, Moore, and Snyder, (1988) that the newly developing field of **organizational ethnography** receives its name. Being focused on "organizational symbolism" and "organizational culture," it "crosses disciplinary boundaries of organization development and management studies, folklore speech, speech communication studies, cultural anthropology, and qualitative sociology, among other specialties" (Jones et al, 1988, p. 18). To this researcher, it comprises the traditional ethnographic approach applied to the study of a non-traditional object of qualitative study--the organizational worksite culture. It is operationalizing Spradley's (1979) idea for making "cultural inferences" from the organizational member's perspective.

The Research Methodology

The researcher used a case study with an organizational ethnographic approach for this study. This section describes how it was applied to the academic unit. The ethnographic approach can be looked at from two perspectives. One is to understand the design process steps or stages an observer goes through when studying a cultural system. The other is to delineate the data collection and analysis strategies used in those steps.

There is no single set of stages that is widely accepted as the only way to study a cultural unit. Schatzman and Strauss (1973) were one of the first to fully describe the set of steps commonly gone through in field research, without trying to become a "how to" book. Since then, Agar (1980), Lofland and Lofland (1984), Pelto and Pelto (1978), Schein (1985), and Spradley (1979, 1980) have written widely used books, the latter serving as a type of reference manual. The following primary stages of ethnography, similar to Agar (1980), Jorgensen (1989), and that of Schatzman and Strauss (1973), were utilized in this study: **entry negotiation**, **getting organized**, **strategies for data collection**, **data analysis**, and **exiting the organization**.

Stage One: Entry Negotiation

This initial stage is concerned with gaining entry to the cultural setting (i.e., the Department). The ethnographic researcher--as a "professional stranger" (Agar, 1980)--contracts for certain types of behaviors with those individuals who hold the keys to entering the cultural setting. The process involves: 1) "casing" the organization for

its suitability and feasibility for study; 2) entering a negotiated relationship through a formal meeting with the Department Chair and any other designated administrators; 3) presenting one's self and the purpose of the study; and 4) defining any sense of reciprocity, such as reporting results to the organization (Schatzman & Strauss, 1973). Reporting back to the department is not a formal requirement for this study.

Criterion for Case Study Selection

A variety of reasons went into the decision to study health promotion as an innovation brought into the university culture(s). Foremost of these were the researcher's familiarity with the overall health promotion effort at the university, and his employment with the worksite health promotion sub-project. And, since the majority of worksite health promotion studies have been conducted in the private business sector, a demonstration effort that focuses on the viability of health promotion in a public university work environment was deemed especially useful.

The pool of potential worksites for the worksite health promotion intervention was systematically selected based on the following requirements: 1) minimum size of the building (i.e., number of departmental employees); 2) similar ratios of faculty, staff, and graduate students; 3) discrete (non-administrative) buildings with maximum of two academic governing units in each; and 4) faculty members not representing medical, social science, or educational disciplines that might, in turn, study the researchers.

The specific worksite department was chosen for study on the basis of its selection to receive an OD-type intervention to introduce health promotion activity. The selection was based on a focus group discussion with a four-member employee committee from the Department that represented faculty, clerical staff, technical staff,

and graduate students. A number of criteria were used to assess "OD-readiness." The initial perception, by the researcher and colleagues, was that this site would be receptive and could commit itself to health promotion activity.

After an initial introductory meeting with project staff, the Department Chairperson and the Department's Advisory Committee ostensibly agreed to the initial health promotion interventions and to participate in the on-going evaluations. But, alas, an "invisible agent" (thought to be the organizational culture) stood in the way of progressing very far. Depending upon the particular technique used in eliciting information, this and the other departments in this phase of the project each varied, by employee sub-groups, as to their interest, response, and participation in health promotion activities, such as health fairs, questionnaire surveys, and health behavior programs. For example, this Department exemplified a higher percentage of faculty participation and a much lower graduate student involvement in each of the activities than did the other sites. Overall, how this translates into a strong or weak compatibility to health promotion was looked at as part of this study.

Stage Two: Getting Organized

At this stage, the groundwork was laid for quickly understanding the total Departmental environment before narrowing the focus further. For an early holistic view, Dobbert (1982) suggests that most fieldwork projects begin with the use of three basic components--pattern seeking, census taking, and culture scheduling--to help set the cultural context before any more specific techniques are used. This is "mapping" the spatial, social, and temporal aspects of the culture (Schatzman & Strauss, 1973).

The first of these, recording **physical patterns** in the setting, takes place immediately from the point of entry and continues throughout the whole project. The primary technique for this component is the use of **observation** (to be discussed). The intent is to capture the first impressions and also to make one's presence known in the organization. Recording of physical patterns applies to physical layouts and significant objects (Dobbert, 1982). These provide clues to social relations (separation of activity, ownership, or authority) and social status (e.g., hierarchy in an organization).

The second basic component for eliciting cultural context is **census taking**. Besides denoting people by age, sex, and occupation, this includes finding out how the people being studied view themselves and their environment. This and the next component rely primarily on observation and **documents review** (to be discussed). The third component, according to Dobbert (1982), is to record a **schedule of the organizational culture**. One can look at the natural rhythms created by schedules and regularities in the department, such as those found in organizational calendars, individual appointment calendars, and department memos.

Stage Three: Data Collection Strategies

As outlined earlier, the primary data collection techniques used in this study fall into the categories of: **observation** (watching); **interviews** (listening); and **documents** (records). These elements parallel Spradley (1979) when he says that ethnography makes cultural inferences from three sources: 1) from the way people act; 2) from what people say; and 3) from the artifacts they use.

Observation

As a basis for data collection, Schatzman and Strauss (1973) call this the strategy for "watching." The researcher is purposefully trying to maintain a sense of cultural naivete, long after the initial culture shock wears off. It incorporates understanding one's own experience as it interprets new settings, and also to recognize and appreciate one's own ignorance of the meanings of the natives.

As suggested by Schatzman and Strauss (1973), watching serves many purposes in this study by creating: 1) context and perspectives to the organizational environment; 2) theoretical leads to further observation; 3) confirmatory behavioral information to interview statements; and 4) a new source of revelation about the organizational culture.

Particularly in this last aspect, a key point to remember is that "watching"--observation--is an obtrusion into the organizational culture. But, encouragingly, it can reveal how the culture responds to outsiders and comes to accept them as a "normal" part of it, albeit temporarily (Schatzman & Strauss, 1973). The researcher, as an observer, is also being observed.

Besides the level of involvement in the cultural setting, observations also vary in their **duration** and **focus** (Patton, 1980). Duration of observations for short periods (usually one or two hours) will be repeatedly used in this study. And rather than providing a holistic view of the Department, focus will be attuned to specific events that might highlight cultural innovativeness and compatibility with health promotion.

The observational strategy used both unfocused and focused observations in a variety of settings. It is important to note that the researcher's experience in the setting and participation in formal and social events became the key to what was

recorded in the field notes. As Ulrich (1988) notes, the ethnographic process first entails examination of the general cultural scene and then funnels in the observations to a smaller number of cultural domains. The researcher starts with unfocused observations and then proceeds to more focused observations (Jorgensen, 1989).

Unfocused observations are those inquiries discussed in Stage Two: pattern seeking, census taking, and culture scheduling. One looks for the main features of the physical use of space (e.g., is it somehow unusual or typical; how is it organized; and what kinds of things are in this space?); characteristics of the Department members (e.g., what are their ages, genders, and backgrounds; how many are there; what is their role in the Department?); and features of time and regularity (e.g., when are meetings held; when are reports due; and what are the budgeting cycles?)

More **focused observations** come with greater familiarity with the setting and when it is appropriate to narrow the attention to matters of specific interest (Jorgensen, 1989). It is also recognized that more focused observation should lead to greater involvement and more informal contacts with people in the setting. This is expected to create more opportunity and the necessity to carry on both informal conversations and questions for interviews as a natural part of the interaction. These might include formal and informal faculty meetings, clerical-technical meetings, and graduate student meetings and social activities.

It was expected, prior to the implementation of the study, that the researcher could detail what the specific events and settings would include. This is a developmental process that unfolds as a part of the natural setting and deepening of the relationship with Departmental members. At the same time, the issues of concern

were those that tell some story of the organizational culture and those that predicate the relationship of health promotion to the worksite.

Interviews

These represent the largest segment of "listening." They have been classified as either **formal** or **informal** (Jorgensen, 1989; Schatzman & Strauss, 1973; Schwartz & Jacobs, 1979). The formal interview relies on a structured interview schedule that consistently asks the same set of questions to each informant. The assumption here, according to Schwartz and Jacobs, is that the researcher already knows the very elements the interview is intended to uncover. The informal interview is more open-ended and is responsive to natural turns of the interview conversation. In fact, say Schatzman and Strauss, field researchers regard the "interview" as a lengthy conversation. They suggest not using a "specific, ordered list of questions, or topics because this amount of formality would destroy the conversational style" (Schatzman & Strauss, 1973, p. 73). It is for the interviewer to set the stage for conversation by use of general statements that let the informant know the general themes that follow. The basic assumption here is that "appropriate or relevant questions are seen to emerge from the process of interaction that occurs between the interviewer and interviewees" (Schwartz & Jacobs, 1979, p. 40).

The elements outlined for this part of the study include: 1) **whom to ask** (selecting informants); 2) **what to ask** (deciding upon questions); and 3) **how to ask** (the interview process).

Selecting Informants. A preliminary element is that key (strategic) informants are sought who represent a "judgmental sample"--members who are specialists in the

area to be understood (Agar, 1980). This includes two steps of determining the potential informant population and the informant selection.

In its most broad sense, all faculty, clerical-technicians, and graduate students were potential informants for the study. This group comprises the total universe for which the health promotion programs were made available in the primary worksite building. This also potentially includes ancillary research offices that were housed in the same building but not administered by the primary Department. At the same time, there are certain Department members that are excluded--primarily due to their being physically located at multiple outlying research centers on campus. Because of their relative isolation, infrequentness in the primary building, and non-participation in most all health promotion activity, they were excluded from this phase of the study.

Recommendations of potential informants were asked of members of the health task committee with which the author worked in the building. In addition to their recommendations, a number of criteria were used to draw an initial pool of potential informants.

1. Historical context: length of time in the department
2. Structural differentiation: role position of faculty, clerical-technical, and graduate student.
3. Cultural roots: Alignment to three original department interest areas.
4. Contrast positions: formal positions, such as chairs or leaders of certain standing committees; unique roles or activities.
5. Special interest: ones with known specific information.

A matrix was prepared for which names of individual's were inserted, both for targeting as informants and for indicating when the interviews were completed. (See Appendix A.)

The **first step** was find out the organizational context--the formation of the department through its primary roots. Separate interviews were scheduled with the current chairperson and the ex-chairman (retired for a few years) and three faculty--those with a long-term perspective in the root departments. Therefore, five informants were identified for the formative and contextual information.

In the **second step**, five informants were additionally identified in each sub-group--faculty, clerical-technical, graduate student--based upon the size of the original root department.

The research study looked for representativeness overall and was less concerned with filling each box of the matrix. The researcher, even at this length, was testing for informants that can provide special insight for follow-up discussion in step three. (See Data Verification section in Stage Four).

Deciding Upon Questions. In looking at what to ask, there were two criteria to outline for this study: 1) the structure of the interview questions, and 2) development of the interview schedule.

Schwartz and Jacobs (1979) describe the range of question structure that can be utilized as those questions: 1) decided upon in advance with fixed choices for answers (structured and formal); 2) decided upon in advance and which are "open ended" with respect to answers--leading to further probes (semi-structured and less formal); and 3) not decided upon in advance but are asked spontaneously as they appear relevant (less structured and informal). The main difference among these

questions is "to what extent is what has already been asked in a given interview being used to determine or define the next question to be asked?" (Schwartz & Jacobs, 1979, p. 45).

This study of the Department used **a number of informal interviews that vary in their intensity and structure**. The purpose of less structure is to enhance the ability for depth in the conversation and also allow for the natural turns that the interview may take. In the same instance, a number of topical or thematic questions were developed in order to provide continuity and a base level of objectivity between interviews.

The interview schedule followed a development procedure to hew down from the original contextual interviews a set of questions applicable to each of the sub-groups (faculty, clerical-technicians, and graduate students). Shown in Appendix B, this initial questionnaire was used as a background framework for the informants interviewed in Step One. Allowing for additional questions that might be added as a result of the background interviews, a second open-ended interview schedule was developed and used first with faculty informants. Due to the length of the schedule for faculty (see Appendix C) which took approximately one hour, the schedules are modified and shortened for both the clerical-technical informants and the graduate students (see Appendices D and E, respectively).

Spradley (1979), in describing his "developmental research sequence," illustrates three levels of questions that can be used. Each one of these levels--descriptive, structural, and contrast--leads to deeper levels of analysis that will be discussed later. **Descriptive questions** are used to encourage an informant to talk about a particular cultural setting in ways that describe and exemplify types of ongoing activity in the Department. Questions are also asked to determine that they are appropriately

couched in the terms of the informants. Another major level of question--**structural**--asks the informant to be discriminative between and, yet, inclusive of information needed to explain a situation or objects. The last level of questions that Spradley discusses, the **contrast question**, is used to determine the meaning of a symbol by finding out how it is different from other symbols. Whether a descriptive, structural, or contrast question, Spradley suggests that these are asked concurrently as needed in the conversation, and they are not meant to force different types of interviews (Spradley, 1979).

As recommended by Schatzman and Strauss (1973) and Schwartz and Jacobs (1979), the interviews did not stand alone as data sources. They were used in conjunction with observations so that what is seen as being practiced either confirms or disconfirms what is stated in the interviews. In fact, Schatzman and Strauss make two key points about interviews: 1) they are to be done systematically rather than for exploratory purposes; and 2) they serve best to checkup on propositions developed during the research. Other forms of "listening" that are used, besides interviews, include eavesdropping and situational conversations. Both tend to be serendipitous and can be timely.

The Interview Process. The interview process included two primary issues to outline: 1) the interview scheduling steps, and 2) the specific interview protocol.

Initial interviews of informants identified in Step One were open-ended. A few orienting questions about the founders and their assumptions were first used to provide a contextual base for understanding the background of the department.

Interviews with informants identified in Step Two were semi-structured with open-ended responses. All interviews were scheduled in advance by personal contact with

the individual or through scheduling with their secretary. The potential informants were informed, at the time of the scheduling, of the general purpose of the interview and the length of time needed–1/2 to one hour.

During the interviews with informants, primary data collection was accomplished through note taking. Tape recording was used as much as possible in order to have a secondary record and provide more free interaction without concentrating on the note taking. Tape recording will not be done with anyone that had any objections–in this study no one objected. Also, approximately one-fourth of the interviews did not use a tape recorder in order to check for variability and openness in the conversations.

During each interview, the researcher summarized the purpose of the study, reviewed the informed consent and confidentiality procedures, and presented the general direction for the interview. (See Appendix F for a sample of the Informed Consent Statement). Each informant, scheduled for tape recording (approximately 75%), was asked if they felt comfortable with having the tape recorder present, and was informed that it primarily serves as back-up for the researcher to authenticate field notes.

Even though an interview schedule had been prepared, the intent was to allow freedom for the conversation to direct itself elsewhere at times–leading to further probes. And, due to expected time constraints on the part of some informants, the researcher freely chose which questions needed attention, rather than consistently getting only part way through the same series of questions. And, with the understanding that the researcher might ask sensitive questions or the informant may provide sensitive responses, the actual interviews were held in any location most acceptable to the informant–whether in their office or moved to an adjoining room.

Review of Documents

Review of records and documents are a commonly used form of data collecting. In themselves, they are a basic source of information about Departmental activity and processes, and, at the same time, they provide important questions to pursue through more direct observations and interviewing (Patton, 1980). Historical records are good for sensing what can not be observed: what was important to early founders and recorders of events. Information from them can be excellent sources for stimulating the memories of individuals concerning remembrances of early events.

Current records, as made available from the Department, included: committee meeting minutes, newsletters, office memos, notices, By-laws, annual reports, budgets, and staff directories. These records, then, served a confirmatory purpose and source of questions for interviews, as suggested by Schatzman and Strauss (1973).

Recording Data. An important element of data gathering is the process for recording data. The use of field notes was consistently relied upon the most. At one level, these are condensed, written records taken during observations and interviews to capture the highlights and key points. Expanded field notes are written after these activities in order to fill in detail and add depth to the key points. Systematic note-taking serves as a journal (diary) of activity. It is crucial to grasping the "here and now" of what appears to be happening: observations, meetings, conversations, and related events (Agar, 1980; Spradley, 1980). The journal provided perspective and chronological detail to the study. It allows the researcher to express feelings and reactions to the ongoing activity (Spradley, 1979). In certain situations, such as formal meetings, note taking was done as unobtrusively as possible--quickly jotting concepts that can be further elaborated after the activity or at least by the end of the same day.

Besides focusing on the organizational culture context at the beginning of the study, it was important to record the atmosphere and setting for each observation and interview; they affect what happened and the meanings attached to the events.

While some researchers disavow the use of tape recording equipment (Ulrich, 1988), they were used as much as the informants felt comfortable. Even though the use of voice recording equipment can lead to apprehension and less spontaneity by informants (Schatzman & Strauss, 1973), the researcher was successful in allaying their hesitations and assured confidentiality of information. Limited note-taking will be done during interviews if tape recording was not used and also as a backup to possible equipment failure.

Stage Four: Data Analysis

As a stage of any research effort, data analysis with field research methods does not just begin after all data are collected but, rather, it is a continuous process throughout the whole study (Sanday, 1979; Schatzman & Strauss, 1973; Spradley, 1979). As one of the strengths of field research methods, the intent is to use the narrowing down of ideas, concepts, and propositions as a simultaneous and continuous activity with other aspects of the data collection.

In the early stages, data handling involves data processing and data analysis procedures (Babbie, 1983). This reflects the not-so-obvious fact that most of the collected field notes are not reflected in this, or in any, research report.

Data Processing

The initial processing of raw data included: 1) rewriting the field notes, and 2) creating and organizing files (Babbie, 1983). Even though much of the worksite department runs on an "8-to-5" schedule, the researcher's tasks do not stop there. **Rewriting field notes** from both observations and interviews was accomplished as soon as possible after each activity. Rather than rely on memory, the researcher rewrote and then typed each set of notes within the same day as the data collection. This was the time to add elaboration and depth that are potentially relevant to the primary issues. Hastily scribbled notes and interviews are transcribed longhand and at least two typed copies were prepared for each set. One set is used as a back-up while the other is used for marking, editing, and cut-and-paste. (All these tasks are made much easier by the use of word processing equipment.)

Creating files starts with simple tasks of recording the date and setting on each page of the transcribed field notes. Initially, this creates a chronological ordering of events that correlates to the field journal. Babbie (1983) calls these the "analytical files"--those that are used for categorizing what the researcher sees in the situation as more is learned about it. A continuous process results from maintaining a flexible file system that allows shifting notes between different categories as new aspects arose. Notes can be continually cross-referenced with note cards between files to indicate, for example, how certain cultural symbols are manifested among sub-cultures.

In addition to the primary analytical files, background and biographical files were also used to integrate people and events. The **background files** incorporated the history of the Department: significant events, how it got started, when it began, and what the building and surrounding areas looked like over time. **Biographical files**

served to illustrate key figures in the past and present. Sources of information are the individuals themselves, the Department office, and university archives.

Data Analysis

As a general guide, Babbie (1983) says to especially look for **similarities** and **dissimilarities**. One thing searched for was the universals, such as **norms of behavior**. Dobbert (1982) looks for patterns in events, speech, and setting. Schatzman and Strauss (1973) emphasize the most fundamental operation is to discover significant **classes** of things, persons and events, and the **properties** which characterize them. They indicate that research propositions are statements that express linkages between the classes. The propositions, hopefully, will fall into sets of ever dense linkages. Spradley (1980) calls these the **domains** for analysis.

From the start of recording field notes and writing-up the interviews, the data were systematically analyzed for linkages with other sets of data. According to Schatzman and Strauss (1973), the researcher looks for "key linkages"--metaphors, models, general schemes, overriding patterns, etc.--that tie together the classes of things identified earlier. The range of classes that can be selected include: 1) common classes of the culture are generally available to anyone in a given society to distinguish among the types of things, persons, and events; 2) special classes are those only known to the unit of study (i.e., Department culture); and 3) theoretical classes that are discovered by the researcher and that are his own terminology and constructs.

The researcher moves back and forth between gathering and analyzing the data--almost simultaneously (Schatzman & Strauss, 1973). The analytic processes are "grounded" in the data--by interpretation and gathering more data for verification.

In addition to looking for similarities and patterns, it is crucial to identify the differences--dissimilarities--as deviations from the norm. Why and in what ways these differences are manifested can help determine their pervasiveness or, perhaps, randomness. As suggested by Glaser and Strauss (1967), further observation and interviews are conducted to find out whether the initial propositions are correct or possibly need modification. Kidder (1981) calls this process "negative case analysis," and suggests that it takes the place of statistical analysis in participant observation.

Data Verification

In ethnographic research, the verification of data is usually done by the researcher throughout the process. The most commonly used technique is confirmatory information from multiple methods and interpretation by strategic informants as a data check when the researcher finds new questions. Then the conceptual schemes are again reshaped and confirmed or disconfirmed in the field setting. A parallel verification process--survey feedback--will be used for providing confirmation or reinterpretation of the researcher's initial written findings.

Once a formal, but not conclusive, written description of the findings was prepared by the researcher, they were be validated by the internal stakeholders--**step three**. It is in the tradition of survey feedback (Bowditch & Buonos, 1982; Moos, 1979), in which the findings are presented to a group of individuals (approximately five) selected from the previous informants. Criteria for selecting these "interested insiders" (Schein, 1985) was representativeness of department membership candidness as informants, and compatibility with other members of the group.

The group discussion will be first preceded by a presentation on the general concept of organizational culture as underlying the interplay of norms, values, and assumptions. It was the purpose here for the group to provide fuller meaning and correctional insight to the initial findings as perceived by the researcher. Otherwise, the specific study results were not required to be presented to the total department, something that was not agreed to prior to initiating the study.

Schein (1985) uses a similar process of group interviews to "elicit positions on specific dimensions." He uses it in situations when time pressures are pervasive or there are few opportunities to make unobtrusive observations.

Some authors (Bowditch & Buono, 1982; Moos, 1979) link survey feedback to survey questionnaires: data generated for questionnaires is summarized, fed back to involved workers through reports and meetings, and finally used by work groups and managers to confront organizational problems. Nadler (1977) is well known for implementing survey feedback, and guided change; he includes interview and observational data in his initial survey assessments. In this study, however, the process to be used is focused on explanation, identification, and understanding of the cultural situation. Of secondary interest is the organizational change that might result as an outcome, but that becomes important to the health promotion project.

Stage Five: Exiting the Organization

Even though some authors do not discuss this stage, Kimball and Partridge (1979) indicate the importance of properly exiting the cultural setting. The researcher never knows when further data may need to be collected, and a hasty exit precludes

effective communication in the future. First of all, it is noted that entry is the beginning of exiting. As long as proper relations are maintained and the boundaries of the study are understood, an ending point becomes a natural part of the relationship. The other thing to keep in mind is to understand that exiting may be ritualistic in that cultural unit, and not something to be taken lightly.

Initially, studies may be bounded by specific time limits, on one end, and the desire to gather everything possible to know about a setting, on the other (Jorgensen, 1989). The length of the study and the degree of involvement may affect the naturally emotional experience. Withdrawal was negotiated over a period of time, which is expected to happen naturally as the researcher's attention is focused on the data and analysis and less on the gathering process.

For this study, exiting from the organizational setting was not a uniquely separate event because the long-term relationship occurred as part of the comprehensive health promotion project–long after this research phase is completed. However, the researcher did not neglect the issue either and, in one sense, still exits from the research role. He made sure, verbally, that the informants and key administrators knew when the data collection phases were over–meaning that the researcher's role remained as a change agent for health promotion. The role of recorder of behaviors and conversations stopped on a systematic basis. Whether this brought about a greater sense of ease and less discomfort on the members' part is a matter for conjecture.

Timeline of Research Activity

Greater than expected, the primary interview data collection process--Stage Three--took eight weeks. The other stages were not discrete linear activities but, instead, melded into the ongoing consultant relationship this researcher had with the worksite health promotion project. Stage Four, Data Analysis, was ongoing throughout the data collection process. It took another eight weeks for initial findings and presentation to the worksite feedback group, and eight more weeks for interpretations and final analysis.

The principal steps in the process of identifying the formative and transforming steps in the development of the Department culture(s) were as follows:

1) Identify the beginnings of culture (formation)
    A) Identify the people to interview.
    B) Develop a "natural" history of the department.
2) Identify shapers and modifiers (transformation)
    A) Identify people to interview: older and newer; levels of staff; current values and content.
    B) Identify enhancing and counter-cultures.
    C) Determine the differing functions the culture(s) serve.

The principal steps in the process of understanding the relationship between the organizational culture and health promotion are indicated here:

1) Determine value perceptions of health promotion

   A) Identify department people to interview.

   B) Observe the roles health promotion play in the Department.

2) Determine compatibility of health promotion innovation to the culture(s).

The principal research questions, while discrete and separable, can be answered as a **continuum of data collection sources and activities** that are outlined above. Table 1. provides a format for this integral part of the study as the techniques of observation, interviews, and document reviews are integrated. The table outlines a focused approach to potential data sources in the Department: the Dimensions, their Indicators, and multiple Data Sources.

Methodological Issues of Concern

There are a number of methodological concerns that pertain to qualitative methodology of any type. A few of these are discussed here.

Research Time Parameters

In spite of any well-laid plans, particularly when dealing with a multiplicity of organizations and people, there are adjustments and alterations that must be made during the research process. In fact, that is one of the strengths of field research--the ability to incorporate and take into consideration those temporal adjustments that are a part of the natural environment. That does not negate the quality of the study, but it can add flavor--a telling of the "real world" occurrences that affect any activity.

Table 1: Potential Data Sources

DIMENSIONS	INDICATORS	DATA SOURCES
Organizational Context		
Physical Patterns	Building layout & design	observations
	Public space	architect plans
	Private space	interviews
	Group space	
	Personal space	
	Power & Status	
Census Patterns	Employee demography	dept. records
	Student demography	dept. directory
	Social status	interviews
	Group membership	
Time Patterns	Calendar of activity	observations
	Research schedules	research documents
	Annual reports	review mtg. minutes
	Professional activity	informal conversation
	Organization mainten. activity	
	Personal/work time	
Culture Creation		
Formation & Convergence	Identifiable founders	interviews: retired &
	Critical events	older faculty
	Myths & stories	review documents
	Historical records	review history books
	Official documents	review bldg. plans
Transformation & Convergence	Leadership changes	interview older members
	Critical events	interview colleagues
	Myths & stories	meeting minutes
	Official documents	
	Membership changes	
Evolution & Convergence	Leadership changes	interviews
	Critical events	review mtg. minutes
	Myths & stories	official records
	Official documents	review proposed bldg. plans
	Membership change	committee memberships
	Clientele groups	

Table 1: (continued)

DIMENSIONS	INDICATORS	DATA SOURCES
Functions		
Identity	Membership symbols	interviews
	Partic. in decisions	physical observation
	Official statements	review documents
	Formal/Informal groups	observe seminars
	Colleagues outside univ.	newspaper
	Publicity	
Membership	Recruitment/selection	interviews
	Turnover	records review
	Promotion/tenure	
Socialization	Formal training	training records
	Informal communication	interviews
	Orientations	count activity types
	Social activity	observe meetings
	Rewards/sanctions	
	Myths & stories	
Administrative Processes	Meetings	observation
	Planning	interviews
	Evaluation	reviews reports
Power Distribution	Formal leadership	org. structure
	Informal leadership	interviews
	Decision making	commit. membership
Appropriateness of Health Promotion		
Appropriate Role of Department	Official documents	records review
	Member affirmation	interviews
	University colleagues	dept. policies
	Professional develop.	conference attend.
	Membership develop.	professional awards
Innovativeness	Budget resources	department records
	Faculty turnover	interviews
	Critical events	observe technologies
	Types of innovations	recent technology
	Leaders of change	
	Sources of innovation	

Table 1: (continued)

DIMENSIONS	INDICATORS	DATA SOURCES
Strength	Amount goal agreement	interviews
	Goal clarity	records review
	Budget growth	annual reports
	Reaction to change	
	Colleagues outside dept.	
Perceptions of Health Promotion		
Appropriateness of Worksites	Official HP documents	records comparison
	Official dept. records	
	Health staff affirm.	interview comparisons
	Member affirm.	
Organizational Commitment	Health staff affirm.	interview comparisons
	Member affirm.	
Member Commitment	Health staff affirm.	interview comparisons
	Member affirm.	
Health Culture		
Health Norms	Behaviors	observations
	Values	survey data
		interviews
Health Activity	Participation: groups	observations
	Individual activity	survey data
		participant observer
		interviews

Ulrich (1988), in citing Fortes (1963) and Hicks (1984), indicates that researchers doing field-based observations in agrarian societies can expect a twelve- to fifteen-month length of time to reasonably adjust to new surroundings and then observe a regularity of events over a one year cycle. In other situations, the period of time spent may be somewhat arbitrary, depending upon the object of study and the amount of resources (including time) available for the study. This was tempered by knowing that the longer one spends in another cultural setting, the more one can learn and understand--meaning becomes more apparent and basic assumptions are revealed.

Organizational Cycles. University environments, as is most commonly known, operate on an academic calendar year that may have a quarterly-term basis or a tri-semester basis. The beginning of the academic year varies for each type and university. The university in this study operates on a term basis with the start and ending of each quarter encapsulated by a national holiday. For example, it starts the academic year soon after Labor Day; Christmas and New Year's Day separate the Fall and Winter terms; Easter often comes between Winter and Spring; and Memorial Day is close to the end of Spring term.

One significant event is the return of students to the campus at the beginning of the academic year. This brings both new and returning students, orientations, renewal of relationships, and re-patterning of the norms of the organization. Also, there is an en mass exodus at the end of Spring quarter. The leaving of students during the school year (e.g., by graduation, employment, or personal reasons) is done more individually and takes less notice. Entry and turnover of faculty will tend to follow the academic calendar, while that for technicians and clerical staff is scattered throughout the year.

Another major shaper of organizational cycles is the fiscal years for the university as a whole, broken into quarters for student employment. This study was incorporated into part of Summer and Fall Terms. This period of time was long enough to observe a cycle of new graduate students starting, some leaving, and the turnover of a few faculty and staff.

The Research Cycle. In most circumstances, the study would ordinarily occur over a longer period. However, several steps of the typical field research process, perchance, took place prior to this specific data collection period. For example, the initial phases of **negotiating entry and initial adjustments**, as well as **exiting the setting**, occurred as part of a larger effort in which the researcher also played a role. This study, in some respects, represents an evaluation phase in the larger, on-going demonstration project that was occurring simultaneously in both this and other academic worksites on campus.

Social and Ethical Issues

A level of objectivity is aspired to in any research effort. Yet, it must be understood, complete objectivity is hardly ever achieved in any situation. Patton (1978) suggests that it is much better to, at the very least, make your biases known beforehand, so they can be incorporated into the broader understanding. In the case of field research and observations, it behooves the researcher to be closer to the data sources. As Ulrich (1988) notes in his citing of Vidich (1955), it serves the purpose of eliciting meaning better when one is closer to the situation at hand, rather than sitting on the side in some position of "social marginality." Putting oneself on the line as a participant observer--being in a learner role, building rapport, and developing trust--is

part of becoming an "empathetic ethnographer" (Smirich, 1983; Van Maanen, 1979). Within certain limits, the object is to "sift the situation" and "cull-out" the rich significance of meaning.

In conducting this study, the researcher believes there was no contradiction between his active involvement and the role of researcher. As a change agent for the larger health promotion demonstration project, the researcher was able to draw upon a broader and deeper understanding of the health promotion project and level of prior knowledge of the worksites and certain individuals that facilitated this study. This relationship had been nurturing for fifteen months in each department prior to this phase of the evaluation study. Trust levels has been established with a few key individuals before this data gathering period, although, some of the key informants in this study were different. The researcher's being involved in a change process does not, in an a priori manner, negate the validity of the data collected.

Confidentiality Issues. The three aspects of confidentiality, outlined by Dobbert (1982) and Schatzman and Strauss (1973), were a guide for this study. First of all, confidentiality of informants and the groups to which they belong is a foremost precept. This is predicated by a change in informant and organizational identity to hypothetical names and identifiers that were not otherwise found at the university. Secondly, all information is held confidential; information from one source is not meant to be alluded to or discussed with others, this includes safeguarding of field notes, tape recordings, and diaries. The third aspect is to publish nothing that could injure the informants or the groups of which they are members. The informants themselves are a guide as to what should be withheld from others' purview.

This involves openness of the researcher's relationship with the unit of study and not disguise the intent of the study. When it came to writing findings, the researcher made a conscious attempt to not betray the trust and confidence some informants had placed in him. As VanMaanen (1983) indicates, it needs to be understood that the researcher, of necessity, often reports on matters that some unit members would prefer be kept quiet.

Data Reliability and Validity

While traditional concerns for reliability and validity of quantitative data are appropriate, their applicability changes with respect to qualitative data collection (Miles, 1979). Validity refers to "the degree to which scientific observations actually measure or record what they purport" (Pelto & Pelto, 1978, p. 33). In a "real world" application, for example, an observer's ability to gain an in-depth understanding of a social situation sometimes requires asking unique questions of different informants; validity is thus enhanced but at the expense of reliability (Ulrich, 1988). Field researchers strive for greater validity by a longer stay in the setting, because it aids differentiation of what is valid from what is not, combined with varying measures of contextual information (Pelto & Pelto, 1978). Reliability, at times, suffers due to differences in interviewer tone and style plus differences in the context in which interviews take place.

From one perspective (Guba, 1979), making qualitative research "auditable," "confirmable," and "credible" is perhaps more relevant than making it reliable and valid in the usual sense. Verification of field data, according to Sanday (1979), must take place concurrently with data collection. She also states that data analysis done in the field must be used to alter the research design in order to verify data as much as

possible. The eclectic use of data collection tools (e.g., cross-checking results obtained from observations and field notes, plus mixing of non-structured with structured procedures) is essential to establishing field accuracy (Pelto & Pelto, 1978; Sanday, 1979).

It is a limitation of this study to not go a step further and use a multiple-case design, referred to as a "comparative-case study" (Glaser & Strauss, 1967; Yin, 1984). While the single-case study is exemplary for studying the unique and critical case, comparative-case studies lend to more compelling and robust evidence. In that sense, they can lead to speculation, depending upon the outcome, about the similarity or differences between cases. The logic, then, is for replication of design in the settings so that it either: 1) predicts similar results (a literal replication) or 2) produces contrary results but for predictable reasons (a theoretical replication) (Yin, 1984). It is also understood that multiple-case studies are far more time-consuming than a single-case study (Yin, 1984). From a practical standpoint (due to restriction on time and money), this research effort is limited to the study of a single university department.

It is Kirk and Miller's (1986) argument that "qualitative research can be performed as social science and can be evaluated in terms of objectivity. . . the problem of validity is handled by field research and the problem of reliability is handled by documented ethnographic decision making" (p. 73).

Definitions of Terms

To provide a common basis for understanding in this project, the following terms are used in this study and dissertation as they are defined below:

Academic Departments are formally specified work units within the university, normally delineated by academic discipline, and they are recognized as having significant decision-making responsibilities.

Culture is the added dimension that accounts for the large differences in behavior between peoples and that distinguishes man from all other animals--learned patterns of social behavior (Pelto, 1965); or whatever it is one has to know or believe in order to operate in a manner acceptable to its members (Goodenough, 1971).

Ethnography is the study of individual cultures--primarily a descriptive and noninterpretive study (Dictionary of Anthropology, 1956); "the science-and art-of cultural description" (Frake, 1983).

Fieldnotes are "the record of an ethnographer's observation, conversation, interpretation, and suggestion for further information to be gathered" (Agar, 1980; Ulrich, 1988).

Health Promotion is an attempt "to influence knowledge and beliefs, and to identify alternatives so that individuals can make informed choices about their behaviors in order to enhance levels of both physical and mental health (Terborg, 1986, p. 226).

Innovation is "the implementation of an ideal--whether it pertains to a device, system, process, policy, program, or service--that is new to the organization at the time of adoption" (Damonpour & Evan, 1984; Damonpour, 1987, p. 676); an idea or practice that is perceived as new by an individual or organization (Rogers, 1983).

Organizational Culture is "the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problem of external adaptation and internal integration, and that worked well enough to be considered valid,

and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1984, p. 3).

Organizational Ethnography is the application of ethnographic methods to organizations and their environments (Jones et al., 1988).

Participant Observation is "the process in which an investigator establishes and sustains a many-sided and relatively long-term relationship with a human association in its natural setting for the purpose of developing a scientific understanding of that association" (Lofland & Lofland, 1984; Ulrich, 1988).

Qualitative Research refers to "research that produces descriptive data: people's own written or spoken words and observable behaviors" (Taylor & Bogdon, 1984, p.5). It is inductive and humanistic.

Worksite Health Promotion is "the striving to improve personal health from the individual's perspective, while striving to improve the human resource from the organization's perspective" (Everly, 1985, p. 12).

CHAPTER FIVE

REPORT OF FINDINGS

Overview

The research findings are organized according to the three major research questions discussed in the previous chapter. Theoretical constructs that emerge from the findings will be presented in Chapter Six as part of the Conclusions. Appendix G describes how the methodology was operationalized in the Department.

The presentation of findings is based upon the aggregation of three sets of data: 1) twenty-four semi-structured open-ended interviews that varied in length from one-half hour to three hours each; 2) observations of and participation in a wide variety of informal and formal settings; and 3) the review of Department documents, records, and publications.

In order to protect the anonymity of the university department and its members, pseudonyms are frequently used. The mid-western university shall be referred to as "University." References to informant gender will be masculine for faculty and graduate students, and feminine for clerical staff. The department shall be referred to as "Department." Other departments that created its legacy and became its roots are given names that are letters of the Greek alphabet, i.e., Alpha, Beta, and Chi. All informants are referred to by their employee classification as the major identifier (e.g., Faculty, Clerical Staff, and Graduate Student).

Historically, the Department has been an integral part of the change and growth of the University itself. That means it is subject to the financial standing, values, and growth of the state and general economy. It also reflects the general public's attitude towards its products and services. From the early "heyday" of the University's development and growth, this Department has "waxed and waned" in tandem with it--being "tight" with the University administrators as they personally prodded and chided its growth. Faculty could and did speak their minds openly with administrators. It was not uncommon for the Dean of the College to invite a young faculty member home for dinner in order to continue a frank discussion. Department heads could make many more unilateral decisions based on the "rightness" of the actions (Field notes: 12/21/89). But, in recent years, the Department finds its previous centrality being further and further redefined as the University reconsiders its own mission and purpose.

As one manifestation of the University's history as a land-grant institution, the Department channels its energy through extension (EXT), research (RES), and teaching (TCH) programs related to food technology production. As such, there are great health implications to users of its knowledge and consumers of food products as well. The Department is an amalgam of the traditional land-grant missions and international outreach. Again, its history is parallel to the history of the University and is best understood in that context.

Can academic work environments be understood as cultural systems?

The first and most fundamental research question asked whether academic work environment's can be understood as cultural systems. If this question could not be answered affirmatively, then the other two main questions would not apply.

In trying to view or understand the present day Department as a cultural unit, an attempt was made to develop a historical context for it--to understand its background and decipher whether and how its roots are still feeding the system today.

Early into this study, it was determined that no written history of the Department or its antecedents was available or had ever been produced. It is recognized by prior and current Department administrators that a written history would be useful, but there is no current administrative agenda to develop such a document in the near future. At present, the organization's memory resides in a diminishing number of current or retired faculty members--particularly a select few with over 35-years of experience in the Department.

The report of findings for this first question will be reviewed in three phases: **formation** (how it got started), **transformation** (how it changed), and **current themes of the Department** (how it currently defines itself).

Formation

There were three academic units, originating around the first decade of the 1900s, which played integral roles in the formation of the current Department. They shall be referred to as **Alpha**, **Beta**, and **Chi**. There are two others that had supporting roles in the early years, but they will not be reviewed here.

The unique feature of the formative time period, from the early 1900s to right after the end of World War II, was the stability and the importance of personal relationships. Alpha for the first 50 years of its existence, was located in the same building as the Dean's offices. Chi department was housed in an old Army barracks on one edge of the main campus, and Beta operated from its own small building adjacent to the administrative offices of the Dean.

Fundamentally, the three root departments--Alpha, Beta, and Chi--have their own unique history in the University, and did not grow out of each other. They were physically separate from each other, and there were very limited linkages among them. Until the mid-part of the century, basic research support to each unit was provided by another research department, with one researcher assigned to each of the three units.

Each root department had key actors of note, and each was more noticeable when the University size was approximately 1/3 of its current enrollment. Alpha has had the most stable administrative leadership. In its over 75 years existence as an autonomous department, it had only two department heads, the first not retiring until 1950. During that same 70+ year time period, Beta had seven department heads and Chi had five. It is in Table 2 that the general relationship of department head tenure between the three department's outlined. All are noteworthy for the long, tenure of their administrators. Administration, for some, was to be a nearly career-spanning job.

Table 2: Year Department Heads Started

Alpha	Beta	Chi
-	-	1898
1908	-	-
-	1910	1910
-	1228	-
-	-	1930
-	1937	-
1950	-	-
-	-	1952
-	1954	1954
-	1957	-
-	1963	-
-	1977	-
----------Mergers 1980-81----------		

Besides the stability in leadership, there was stability in the University and the departments. Prior to the end of World War II, particularly through the Depression years, there was no enrollment or faculty increase in the University or in the departments. Their budgets remained constant and inflationary salary increases were a thing of the future. "Frugality" was noted as a mark of excellence, and departments purposefully turned money back to the University at the end of each year. The commonly accepted rationale was that it was "the taxpayer's money being spent and saved."

It was during this period--during the middle of the century--that personal relationships played an integral part. It was not unusual for the University President to interview individual faculty for positions or make recommendations for selection. The general tenor that pervaded the University was that superiors selected, hired, and were invested in the support of those positions immediately below them. The Dean

operated according to "standard operating procedures": "You'd always know where you stood with him. People who could not make their positions clear rather quickly did not get along with him." Department heads were almost inviolate in their individual authority for hiring, promotion, and tenure (Field note: 12/21/89).

Besides getting by on the least amount of money possible, other themes of the early years included: longer hours of work; external control of individual work time; and leisure and exercise breaks not valued in themselves (Interview: Faculty 7).

Until after WWII, it was the standard at the University for classes to be held on Saturdays and, therefore, for clerical staff and faculty to work on Saturday mornings. Also there were fewer vacation holidays to observe. Individuals, particularly faculty, were controlled by external norms of the University administrators and the community as to when they were to be at work. There was no sense of trusting personal commitment to fulfill a variety of job assignments. Instead, faculty, as much as support staff, were expected to be filling time slots at their desks.

The expectations were that the faculty would be at their desks at 8:00 each morning, including Saturday. Having a late night Extension program far away from campus and arriving home at midnight was not considered justification for taking compensatory time off and coming later to work the next morning. The Dean was noted for calling departments at 8:00 A.M. each day to check on faculty and the department head's presence. The department head and the Dean would also take note of the number of cars in the parking lot, particularly on Saturday mornings, as a sign of rigor.

It was not the norm for faculty employees to simply do their job and, then, be able to control the rest of their time in personal leisure-recreational pursuits. This set

of departments may have been among the last in the University to accept the idea that faculty might take their noon hour--let alone an afternoon period--for exercise or recreational activity if their work was done.

The formative period, through the depression years and encapsulated between the World Wars, can be summarized as stability and foundation setting. Power and authority were rested in a small number of University administrators. Performing was measured by attendance to schedules and physical presence rather than recognizing the uniqueness of different job requirements.

Transformation

It was the post World War II crush that, more than anything, brought the University and the three departments into new value systems and expectations. The period from the late 1940s to 1980 were days of transformation--rapid growth, changing expectations, and a subsequent economic decline.

Newly freed from the War effort and fortified by veteran's educational assistance, an avalanche of students entered the U.S. educational system in the late 40's and early 50's.

The University capitalized on the expected surge by planning for expanded enrollments and investing in "bricks and mortar" for building new structures.

In preparation for increasing student enrollments, and expanding departmental budgets, a push to expand the numbers of Ph.D. faculty prevailed across the University. One example from the Alpha Department was that a recently minted Ph.D. living on a farm in another midwestern state could, through personal contacts, find out about a job opening in his specialty and be hired at the University. Within one year, this new

Assistant Professor would be appointed Associate Professor, followed by a full Professorship two years later, and then become Department Head one year after that. This individual would be personally interviewed by the University President early into the hiring process. As the first Ph.D. in the Department, and as Assistant Professor, he would have its first doctoral students which was viewed as an honor of the time. Quite uniquely, the first two of his Ph.D. students were Associate Professors who had been with the Alpha Department for a number of years (Interview: Faculty 7).

This was one early sign that academic credentials would support older and more experienced individuals in many upcoming job positions.

At the same time that Ph.D.'s were being expected of new faculty, there were expectations that more current positions would require Ph.D. degrees in order for those occupants to be promoted. Many Extension faculty positions would only receive promotions if they were filled by a Ph.D. graduate; otherwise, the position title would likely be downgraded to Specialist. There was some resistance to this way of thinking from the Alpha department chair. He most wanted to avoid those instances whereby someone with a Ph.D., but without field experience, might be promoted over someone with a lesser academic credential but considerably more experience.

This was to happen many times during the University's growth. This was most lamented in Extension positions which depended greatly on developing clientele relationships as much as being certified researchers.

As the university grew rapidly, so did the resources available to academic departments. One outcome from the rapidly expanding budgets and enrollments was a decreasing interest in returning unspent funds. Department budgets lost their identity as being the "taxpayer's money." Departments came to maximize their own interests,

faculty came to expect annual salary increases irrespective of productivity, and grant monies were readily available through a variety of sources.

Partly as a result of the rapid growth, the heads of the three departments felt they could best become more established and combine some of their space needs by making a cooperative move into a new building. This move took place in the mid 1950s. The head of Alpha, at least, believed that administrative support for the building was a subtle mandate from the University President--to introduce a level of cooperation, heretofore, unestablished among the three departments. From the perception of the Alpha department head's understanding of the President's intent, personal overtures were made to the other two heads suggesting that certain sections of the building might be designed with collaboration in mind--thereby eliminating duplication in some of the departments' laboratory space. The head of Alpha soon received a phone call from the Dean to come to his office on short notice. Upon arrival, he found the other two department heads present and was summarily advised to keep these building sections separate. He was perceived as a "threat" with the ascribed intention of "wanting to take over the other two departments" (Interview: Faculty 7).

While the Alpha department had no intention of taking over the other units, the incident reinforced the idea of departmental autonomy and weakened interdepartmental cooperation, at least at the administrative level.

According to informants, each of the three root departments had a different personality. Some informants, however, were more able (or less hesitant), to describe those features. The following is a thumb nail sketch of each of the three departments.

The **Alpha** Department had great stability of leadership with only two department heads in its over 70-year existence as a separate unit. "People knew where they stood

in the department." Communication was open between people. "If problems arose, one could meet with the head to discuss an issue and get a decision within two to three minutes." The head served as a catalyst to other's work. His leadership style was viewed as a benevolent dictatorship--firmness and fairness. People were held accountable for their work, and the head knew what faculty were doing. The head was outspoken, knew his way around the University, and acted on the basis of principle. His outspoken nature did not always endear him to University administrators, but it made him respected by peers and department faculty alike (Interview; Faculty 5; Field Notes: 12/21/89). This department was viewed as a family, sometimes with "family obligations" to attend social events. The head took pride in being able to recite the names of all the children of faculty and staff in the department--something he often did at Christmas parties. This department head would go on to chair the merged department for the first four years of its existence--until his retirement.

In its 70-year history, the **Beta** department had seven different department heads--the last one resigned in order to take a position with private industry. During the middle third of the century, it was perceived as a family unit by its members (Interviews: Faculty 5,6). Initially, collaborative research efforts were repeatedly one of its goals. But it grew to become identified as a "combative" unit--primarily within itself and sometimes with outsiders. At one point, some of its members were viewed by the Dean as a bunch of "bellyachers" and contentious on many issues. One informant stated that early collaborative efforts were agreed to by faculty, and then violations of research protocols would happen, driven by outside pressures from research funding sources. Self-interests of researchers reportedly took over. There would be another round of cooperative agreements, again followed by violations of protocols, resulting

in mistrust. Faculty self-interests and career development were said to often prevail over focused efforts that would generally benefit the department or other members.

The Chi department had always been the smallest of the three in terms of faculty and student enrollments, and the weakest in terms of political "clout." Yet, it was a strong, dynamic department with its own brand of family orientation. In its approximately 80-year history at the University, this department had five department heads. Administrative and discipline-based leadership was often composed of strong personalities--many nationally known leaders in their field. The last department head, who died after 25 years in office, was a forceful leader with a long military background as an Army officer--described as "large, loud, loving, and compassionate." Uniquely, even though his graduate training (management and education) was in a discipline different from the department's, he built a very strong, nationally competitive department. Viewed as an autocratic dictator, this head "had his fingers in control of every research cent ever spent." Democratic decision making was not prevalent. This same style was emulated by the department's head secretary who overly controlled the clerical staff. At the same time, there were other supportive faculty who "could charm the sox off someone"--crucial to preserving some harmony and dignity of others (Interview: Faculty 10).

The individual fates of the three departments rose and fell with the economy of the State, possibly more than most other departments at the University. As a group, each of the departments had nationally known researchers in their various disciplines. Alpha was composed of four commodity-based disciplines, Beta consisted of one, and Chi was made up of two disciplines.

The building that collectively housed the three root departments in the mid 1950s was crucial to their successful merger at a later date. Even though there have been a number of shifts and recombination of faculty and staff offices after the merger, essentially the core of each of the original three departments remains where it was first physically located in the building.

In the past decade there have been reductions in the numbers of faculty (12 between 1979 and 1984), clerical staff, and graduate students due to budget cuts and shifts in commodity-based priorities. The numbers in Table 3 (taken from University staff directories) show the rise and fall of numbers of faculty in the root departments. The first peak period (1957/58) reflects the first year the building was fully occupied and new faculty positions were filled. The second peak (1979/80) was over a year prior to the administrative mergers. Figures for the current year are 28% below those from 10 years ago, but are just below those of 20 years ago. The Beta group, obviously, has taken the most serious decline. This is reflected in the general weakening of the role of that commodity-group in the state and the level of research funds flowing into the Department.

Table 3: Faculty Numbers by Root Department

	Alpha	Beta	Chi	Totals
1957/58	22	25	9	56
1967/68	20	17	11	48
1970/71	17	20	12	49
1979/80	28	23	13	64
1989/90	20	16	10	46
% Change 1957-1990	9%	-36%	+10%	-18%

The transformation period of three decades following WWII is characterized by tremendous growth in student populations and physical structures. As is typical in financial declines, the early expanding budgets also kept academic units protective of their own "turf" rather than developing opportunity for collaborative effort. Then when real financial crises arose, there was no history of interdepartmental linkage--every department was for itself.

Current Themes of the Department

The Department continues in transformation but prepares to strengthen its ties with its commodity-based clientele. The general characteristics of the Department in this last period will be described, and then followed by a discussion of current themes.

Character of the Department. The widely espoused rationale for combining the three departments in 1980/81 was the general decline in the State's economy and the resulting need for administrative cost reductions at the University level. First, a general weakening of the State economy reduced general fund money available to University departments. Secondly, the Department's constituent groups were in poor financial shape. And thirdly, an administrative "shuffle" without relocation costs could save the University two department head salaries plus cuts in support staff (Interviews: Faculty 7, 8).

The timing of the mergers was quick and unexpected. The Chair of Alpha was out of the country when he received a call from the Dean indicating that Chi department had been merged with Alpha department. This took place without notice to the faculty of either department. Chi faculty were even in the process of interviewing new candidates to replace the chair who had recently died. Six months later, the Beta

department was merged with the others soon after the Chair of Beta left University employment (Interviews: Faculty 5, 7, 8, 10).

On a national level, there were precedents in other universities for merging these departments. There is some variation nationally about which root department plays the lead role and, in some situations, only two of the three departments are merged for some political or financial reason. While the merger of these three departments was not entirely unexpected, it was a situation in which, if the faculty had a chance to vote, they would have voted "no" (Interviews: Faculty 7, 8).

As can be seen in Table 4, the breakdown of full-time-equivalent (FTE) faculty positions between extension, research, and teaching in the Department (the totals reflect faculty associated with the Department and not just those in the building).

Table 4: Faculty Appointment Distribution for Extension/Research/Teaching

	EXT	RES	TCH
Department FTE	13.5	20.2	14.3
% Distribution	27.9%	41.9%	29.7%
Alpha	33.3%	27.5%	38.2%
Beta	25.2%	42.7%	32.1%
Chi	27.0%	58.0%	15.1%

At first glance, it appears that the Chi-group is much more research-oriented than the others, with 58% of its manpower committed to it. These figures are based on Department directories and not all positions fit into neat categories. For example, one full-time researcher is counted by the Chi-group because he does research on their commodities. But, otherwise, his background and interests lie closer to Beta's

and is often counted by them. The numbers also reflect the attractiveness of the commodity-groups for students. Chi attracts the least and therefore commits less instructors. Alpha has the highest student populations and instructors, but this includes one highly attractive commodity with no research committed to it.

Stability of faculty also characterizes the Department. As can be seen in Table 5, 41% of active faculty (both inside and out of the building) have been with the Department longer than 20 years. This varies by root department, though. Of Chi's 10 members, one-half have been present 20 years or more. The same applies to Alpha's 22 members. Of Beta's 16 members, just 25% have been present 20 years or more. Additionally, fully one-third of the total faculty completed their Ph.D.s in the Department in which they are now employed.

Table 5: Length of Faculty Employment

N = 48	Alpha	Beta	Chi
No. Faculty	22	16	10
% Employed Prior to			
1960	20%	12%	10%
1970	50%	25%	50%
1980	75%	63%	90%

The Chi-group is the oldest in time of length of faculty tenure, with the greatest number of faculty eligible for retirement in the near future. There is fear that these positions will not be replaced, and that the Chi-group will lose all identity within the Department (Interview: Faculty 10). At the same time, the Beta-group is the youngest, representing a commodity-based "push" to revitalize that focus in the Department. Informants indicated that there was small turnover because few openings were available

elsewhere; plus, the breadth of the Department's disciplinary study was an attraction for staying (Interviews: Faculty 8, 11).

Table 6 provides an array of membership distribution by employee groups in the Department, highlighting the distribution of minorities and females. The most notable features are that 60.6% of the undergraduate students are female; graduate students are 38.7% female; 100% of the clerical staff are female; but just 7% of the faculty are female. The background of the Department and its members has traditionally been male-dominated. However, it is aware of the discrepancy and is making a concerted effort, with the Dean's financial support, to recruit more female and minority members.

Table 6: Minority Membership by Employee Group

[54] Faculty: (5 out-of building)					
(43) active in building; (6) retired					
Minority:					
Non-Caucasian	(4/43)	9.3%			
Female	(3/43)	7.0%			
[35] Support staff: (5 out-of building)					
Clerical 14 (in bldg)			Techs 16 (in bldg)		
Minority:					
Non-Caucasian	(2/14)	14.3%	(2/16)	12.5%	
Female	(14/14)	100%	(9/16)	56.2%	
[72] Grad Students: (10 out-of building)					
Minority:					
Non-Caucasian	(20/62)	32.2%			
Female	(23/62)	37.1%			
International Students: 16 countries represented					
	(24/62)	38.7%			
[160] Undergraduate Students					
Female	(97/160)	60.6%			

The membership distribution by commodity-based disciplines within each of the root departments is shown in Table 7. Alpha-group has 49% of the faculty, 41% of the graduate students, and 43% of the undergraduates. It is interesting to note that, in Commodity A4 within the Alpha-group, 92% of the undergraduates are females, while there are no undergraduate females committed to the Chi commodities. The commodity represented by A4, also with the greatest proportion of undergraduate students, has the fewest number of graduate students. This is the commodity which is in constant state of financial distress: faculty sometimes do not know much before the start of the academic year whether funding will be received to merit continuation of its teaching, research and Extension programs. Its support from the Department administrators is not thought to be high, but some feel that it is potentially a powerful force if its membership in the State were harnessed appropriately.

Table 7: Seven Primary Commodity-Based Disciplines

Former Depts	Chi		Beta	Alpha				
Sub-Disciplines	(C1)	(C2)	(B1)	(A1)	(A2)	(A3)	(A4)	Other
FACULTY	23%		28%			49%		
(7%Fem)	(0%)		(8%)			(9%)		
GRADS	25%	3%	31%	18%	21%	1%	1%	
(72)	28%		31%		41%			
(38%Fem)	(35%)		(32%)		(43%)			
UNDERGRADS	0%		22%	10%	3%	0%	30%	35%
(160)	0%		22%		43%			35%
(61% Fem)	(0%)		(50%)	(42%)	(50%)	(0%)	(92%)	(48%)

Themes. There are currently a number of issues or themes that pervade this new, merged, academic unit. They have to do with the financial stress the Department is currently undergoing, its communication patterns, and the basic values held by its members.

The Department, not unlike others at the University or similar ones nationally, is undergoing severe financial stress. Cutbacks have been made annually, for the past three years, from the University general fund and are expected to continue for at least one more year. Also, the federal and State appropriations for Extension outreach services have failed to keep pace with salary and fringe benefit increases. Coupled with this are dramatically increased billing rates for University mainframe computer support.

This financial situation causes anxiety and insecurity at all levels of the Department. The Department was two and one-half months into the current fiscal year before knowing where it stood financially from the Dean's office. And when the information came, the immediate need was to reduce expenditures. Of the dollars not committed by research grants, the Department's only options in this "budget crunch" were to reduce clerical staff, cut back purchase of supplies and equipment, and eliminate programs (Field notes: 9/18/89).

Certain faculty were not even sure until three to four weeks before classes started, whether their undergraduate programs would continue or be eliminated (Interview: Faculty 9). The clerical staff positions were the most vulnerable. Department administrators attempted to resolve some of the crises by not refilling clerical staff vacancies (Meeting 12/19/89).

Communication channels in the new Department are another issue. They tend to be one-way, and are more informal the farther the physical distance from the Department Office. There are a number of formal mechanisms for transmitting information that were found to be most commonly used: faculty meetings; Department newsletters; suite supervisors; and internal memos.

Faculty meetings, held monthly during the normal academic year, typically last one and one-half to two hours. The majority of the time is spent by the Chair communicating a large number of informational items to the faculty present. Out of the 30 faculty that regularly attend, only six to eight will consistently make comments--points of clarification, arguments, or humorous anecdotes (Meetings 6/12/89; 9/18/89; 10/9/89). Most of the faculty contributors tend to sit immediately at the inner grouping of tables, while the majority of non-talkers will sit around the perimiter of the room. When asked "who would have to be committed to health promotion before it would be accepted," one informant indicated that if he spoke up at a faculty meeting, others would not pay much attention (Interview: Faculty 9). Only a limited number of faculty, who regularly speak up, are thought to be credible on major issues.

In the current academic year, the Department Chair introduced an "issues" discussion session into the faculty meetings, with outside faculty presenting topics of interest. But, in general, the faculty meetings are not used to general discussion and feedback. It is usually a time when the Department Chair goes around the room and asks each individual present (including this researcher) whether they have any remarks for the group. In most instances, points brought up reinforced points made by committee chairpersons.

A Department newsletter, which is distributed to Department members at the beginning of each month, is almost solely written by the Department Chair, even though information of a general nature is requested from others. It is a plain looking, two-to-four page document, recently re-initiated after a one-year respite. One of its intended purposes is to reduce the amount of paper used for flyers, by providing a common source for information (Meeting: 9/18/89). The newsletter typically announces upcoming events, such as professional conferences, social events, and Departmental retreats.

Suite supervisors are the senior faculty members of the suite of offices that contain faculty and a clerical employee. Suite supervisors are expected, along with other faculty, to communicate relevant information to clerical staff and graduate students. There were wide differences among clerical informants as to the effectiveness of this communication channel. Some say their supervisors and faculty convey information very quickly and help them plan ahead for workloads. Others indicate their faculty supervisors do not directly provide information to them and, instead, they have to seek other more personal sources (Interviews: Clerical 1, 2, 3, 6).

Memos come primarily from the Department office. They serve as information devices and directives. It is the most common way to communicate from the Department Office to clerical staff members, because there are no regular meetings among staff or between staff and the Department administrator. In some instances, the information conveyed comes as a "jolt," because the clerical staff may not have had any forewarning from their faculty supervisors (e.g., communication of staff and office relocations, telephone system changeovers, and position openings).

An example of the communications patterns in the department was a recent decision that involved a shift of personnel in the building. A memo came from the

Chair to faculty and staff announcing the relocation of two office suites (faculty and two support staff), a shift of three support staff away from previous faculty (suites), and a shift of two faculty independently of previous suite-mates. The criteria for the moves included: avoid laying off clerical staff, match certain personalities that could better handle each other, and tie the overall move into the simultaneous installation of a new telephone system. Some of those involved in the move were caught "off guard" and felt they had little prior warning of the impending shifts.

Informal channels serve a two- way communication flow for Department members. The Chair periodically walks around the building, steps into offices, and chats with faculty and support staff. It is also this one-to-one informal communication channel that most readily identifies the faculty's linkages to the clientele groups. The telephone and direct contacts with them are used continuously for the contacts outside the University.

Graduate students must rely on their faculty advisors for most pertinent information, some of which is communicated at the weekly research seminar sessions in their disciplinary specialty. Otherwise, most of their communication is contained within their four-to-six member graduate offices.

The "grapevine," as an informal communication network, is used most frequently by clerical employees. For those who find out information from the faculty, they channel it to those "in the dark." There is one group of clerical staff who regularly meet at the "break room" during designated morning and afternoon periods. The other half finds out the information in a more "hit or miss" basis. And, a small group of faculty and clerical staff regularly meets during the noon hour for relaxation, talking, eating, and playing cards (Field notes and Interviews: Faculty 2, Clerical 2, 3, 5, 6).

When asked who were the "key people to know" in the Department for information sources, informants indicated the Chair, certain faculty identified as close to the Chair, a few socially-active clerical staff, and graduate student officers.

There are certain **basic values** that new individuals are expected to bring into the Department with them. These pertain to the experiential roots of the current members and their major clientele groups. A major issue in the Department for a number of years, and with comparable departments in the United States, is that the undergraduate and graduate students typically come from backgrounds dissimilar from those of the past and from the faculty in the Department. In the past, the majority of students in the Department came from communities and from families involved with some aspect of the food technology industry--in short rural, farm communities. The traditions, values, and expectations would be in place long before entering a university environment. In fact, it is one of the roles of the Extension faculty to nurture and perpetuate this value system in youth, throughout the State, before they attend the University. But, now, many students are being attracted to the Department without the fundamental understanding needed to talk with clientele and to be successful in the field. Some of the values expressed to be important by informants include: family and religion; role of work; independence; responding to crises; and clientele-centered orientation.

The **family-oriented value**, is expressed at two levels by various members. The first reflects the importance of immediate family members. The younger faculty members more often expressed the importance of re-establishing family bonds, particularly right after the stress of graduate school. Also, for some younger faculty, the physical closeness of the extended family played a role in job location decisions.

These younger members did not portray the Department or their peers as a family unit and they were not found to attend any Department social functions after work. Their family identity was found and nurtured at home. At the same time, some of the older informants regularly attended Department social activities. In some cases, the Department members were extensions of their family. Older faculty were observed to bring their sons or daughters and their children to retirement parties and Department Christmas parties--the sons and daughters who had grown up as youth, and had come to these gatherings for a number of years.

The other dimension of family has to do with each of the three root departments prior to the merger. According to informants, both Alpha and Chi were noted for their strong family orientation within each unit--their members were supportive, caring, and socially active. Beta was noted for having had a "family feel" years earlier, but it is a quality now lost for many years (Interviews: Faculty 3, 5, 6, 10; Clerical 5).

The term, "family," was never used by anyone in denoting the nature of the current academic unit. The remarks were not deprecating, but stated more with a sense of "something good" that was lost. There was a small set of older informants who were vocal in describing the sense of family that was lost. But these same individuals did not attend social events now. Without a "commanding" department head in charge, they took little initiative to remain together on their own.

The **value of religion** goes along with family tradition for some of the same younger faculty in the Department. Persons who had referenced the importance of family ties would frequently make supporting comments about the role of religion to the families. This would come out with respect to expressing their community service orientations and searching for specific denominational churches with which they felt

most comfortable that were often found close to land-grant institutions (Interviews: Faculty 3, 9). Again, this reconfirms the search for family that is not found at the job.

The **role of work** varies by employee group in the Department. The idea of the job as an avocation was repeated in faculty remarks--some "thoroughly in love with what they do." (Interview: Faculty 1). When asked what a typical work schedule was for faculty, informants indicated they had different expectations of others than they had of themselves. It was permissible for others to work an 8:00-5:00 schedule if they got their work done. Yet, these same faculty routinely took their work home with them or came back to the Department in the evenings or weekend. Department researchers were often at the research centers seven days a week, or at work during many "odd hours of the night" to take test samples. Three faculty informants remarked that they are trying to slow down and not maintain a "workaholic" behavior. For one of them, though, this meant taking the work home and staying there instead of coming back into the office (Interview: Faculty 2, 4, 5).

The Chair, at the graduate student orientation, expressed that their future in food technology will be better if it can become an avocation but not all controlling of their life: "If they can't enjoy what they do, better to do something else." The Chair also reminded them to be protective of their purpose, i.e., to get their degree and be gone--"faculty will always have one more [experiment] that they want done." All too often graduate students, by their learning role and mentor relationship with faculty, get caught into the work patterns and odd cycles of faculty and prolong their graduation (Meeting 9/22/89).

Clerical staff were more structured in their work by the 8:00 A.M. - 5:00 P.M. work-day schedule. This varied, at times, based upon their dependence upon getting

rides to work and the flexibility of certain office suites. Clerical informants expressed, and were observed, that they often work through their breaks or lunch hours and sometimes beyond 5:00 p.m. in order to meet impending deadlines.

The **value of independence** seems to be a characteristic of the food technology people in the Department. They were not anti-teamwork, but working independently was more revered (Field notes: 12/21/89). An indication of this value was that team-teaching at the undergraduate level was felt to be a weakness by one older administrator (Interview: Faculty 7). The close social and professional relationships that some faculty would build with their clientele groups also perpetuated a commodity--based independence from each other in the Department.

In another way **team playing**, "getting along," is important particularly as it affects recommendations for promotion. How much this happens varies among the original three department groups. Alpha members are still the most regular team players, the Beta group is rather independent, and the Chi group is very supportive when help is needed (Interviews: Faculty 5, 10). There are different types of "loners" in the department. The first very small group is the "mavericks." They are quite independent in their thinking and expressing opinions. They are in control of their schedule and in office suites without clerical staff. Often, no one in the building knows where they are working, yet, they are viewed as very productive workers. Another group--the "maintainers"--are often self-selected "loners" in not joining in the activities of the Department. Also isolated in suites without clerical staff, they appear to be biding their time until retirement: productive workers but with little enthusiasm for Department activities. The last group, again very small and self-selected, is the "deviants." These individuals have been noted as aggressive in building emotional barriers between

themselves and others. While highly motivated to their own interests, their behaviors are not directed toward fitting in or playing a low profile (Interviews: Faculty 5, 10, 11; Clerical 1, 2, 5).

Another aspect to the strong independent streak is the resistance to unionized activities, whether by faculty or clerical staff. There was a university-wide, Clerical-Technical employee strike a year earlier that brought the inbred values to light (not just in this academic unit). The wide diversity of faculty responses to that walkout is still a tense issue for discussion by some staff. In a few suites, the faculty were supportive of the strike in word and deed (e.g., food brought to the picket lines and flowers presented upon return). In others, the faculty cannot talk about the issue without responding negatively; strikes run counter to their background. (Interviews: Clerical 1-7, Faculty 8, 9).

At the same time, **responding to crises** was also endemic to this group. People worked independently of each other, but when "the bell was rung," people would come running to offer help (Field notes 12/21/89). One of the more noticeable examples was when this researcher found a group of 25 faculty preparing for a 6:15 A.M. breakfast for a group of clientele exhibitors. It was an annual event in which members willingly participated without prodding. In times of support staff illness or other family problems, the faculty were found very supportive, and encouraging--even when it meant phones would not be regularly answered for a few days.

Graduate students, in order to get needed assistance for taking test samples, could put a sign-up list in the staff lounge requesting help from other students and faculty, and get consistent response. But, assistance is frequently limited to other

persons within their small disciplinary groups and not from other groups (Interviews: Graduate 1, 3, 4).

This "good neighbors" policy was also noted among the clerical staff who, while not being close-knit on a day-to-day basis, would offer help when other's workloads were stressed or when they had personal slack. But people had to make their needs known; otherwise, they normally kept "their noses out of other people's business."

The **clientele-centered value** meant that the faculty and Department developed professional and social closeness with their commodity-based clientele groups. Certain faculty expressed as much personal closeness to the families of clientele groups as to others within the Department--eating and socializing together (Interview: Faculty 10). This was particularly true for the Extension faculty, whose job requires responding quickly to clientele emergencies and problems in the state, and also had ongoing close working relationships with their clientele. This went as far as always having changes of clothing available so that faculty could leave quickly and dress appropriately to meet clientele at their places of work.

There appeared to be a **value of openness** in the Department. Because of the confidential nature of the questions asked and responses given, this researcher expected many "closed door talks." But, in only three of twenty-four interviews was the door closed to other listeners. Two were in a place with a door that automatically closed; the researcher initiated the other because it was in a classroom, subject to outside echoes. All interviews with faculty, except one, were held in their individual offices with doors completely open--with never any attempt made to close them for privacy or to block disruptive noises or conversations. Additionally, all faculty meetings, except one where hall traffic noise was evident, were held with the entry door open.

Doors were usually closed for seminars or smaller meetings held in conference rooms only if there was hallway activity. All interviews with clerical staff were held away from their desks, because there was no personal space or sense of privacy in these areas. Because graduate students were usually grouped in offices, most of those interviews were held in adjacent locations.

Because of the open doors, it was difficult for this researcher to know whether to seemingly intrude upon faculty or first locate a secretary-receptionist and be introduced. In most cases, the secretary would just indicate to go directly to their open doorway. One younger faculty member later expressed that this pattern of openness that this researcher observed was initially disturbing because it represented a cultural difference from his previous university experience. He was accustomed to thinking it was disrespectful on the student's part to "walk right in and start talking" (Field notes: 12/21/89).

The clientele-centered, external environment focus of the Department creates a relaxed atmosphere. Faculty often dressed casually, not reflecting whether they intend to spend the day at the office or in the field. Contacts with clients and at the research centers actually required "dressing-up" by "dressing down"--coveralls, boots, and removing the necktie. Secretaries with Extension faculty would remark that they recognized people on the phone by their voice and not as much by their name. In at least three social occasions in the Department offices, clientele group representatives, high-level University administrators, magazine editors, faculty, staff, and laborers would all be together discussing Departmental issues while enjoying food and refreshments. At another time, a clientele representative was heard outside an informant's office door

using the secretary's phone without even asking. The faculty informant recognized his voice and started chatting with him (Interview: Faculty 10).

The Department cultivated much of the openness for its own sake and that of the University. Its research centers are known in the surrounding community and draw thousands of people to them year-round for regular tours, public exhibitions, product technology displays, and youth and adult education activity. Even in the Department's office building, there are seasonal displays, exhibits, workshops, educational and research sessions that bring people of all ages, disciplines, and backgrounds to the Department many times of the year. The Department's building was built with public displays in mind. On three floors it contains over one dozen, large, glass-enclosed display cases. These require large amounts of attention to keep them stimulating and updated. Half of them are used to display photos of faculty, graduate students, undergraduate student clubs, and professional association award winners.

The last period since the early 1980s is characterized by a consolidation of three departments into one administratively stronger one. But the economy of the University and the major commodity groups have caused retrenchment and reinforced an "every person for themself attitude." The Department enjoys a relationship with its clientele throughout in a much more open stance than most other academic units. So, communication with the outside environment is often more open and personal than the more structured and formal process in the Department. The Department members reflect their rural value-base of family orientation, strong work orientation, independence, and responding to crises.

Summary

The first question, in asking whether this academic work environment can be understood as a cultural system, must be answered: yes. The review of the three departments formative years indicated a period of stability, foundation setting, and closer ties to higher level administrators. The transformation period was one of University growth, increasing enrollments, and a convergence of three departments into one administrative unit. In the last decade fraught with financial distress, the Department has been required to strengthen its ties to the external commodity-based groups. In order to do that, it must reinforce the rural roots its members came from, those that particularly identify this cultural unit.

The Department, as a unit, maintains the same basic values that often characterizes a rural community. There is a strong family orientation but one that gets buffeted as society changes. The younger members look to their home for the sense of family, while many older members have transposed the Department into their extended family unit, with all its parallel expectations and tensions.

Besides the open communication to its publics--students, peers, commodity-based groups, a relaxed working atmosphere is endemic to this academic unit. Its members are noted for the independence of their work tasks but drawing upon cooperation for administrative functions, specific research tasks, collegial support, and help in times of crises.

Can sub-cultures in work environments be identified and understood?

The search for sub-cultures was initiated along the lines of 1) the functions they serve, and 2) on the formal organization structure. That is, the first is a primary search across the functions that cultural units can serve, and the second approach searches the traditional academic organizational structure.

Functions

Organizational cultures serve a variety of functions to fulfill both integrative and adaptive needs. Some of these, proposed by Schein (1985), and others specified by Schneider (1986), are elicited here as a way to describe the Department's culture. For this study, they are an imposed framework used to sift through the information in order to define the sub-cultures. The specific functions to be described here include: membership; socialization; identity; structural issues; interpersonal issues; and external relations.

Membership. In an academic environment, membership in certain groupings clarify boundaries of "who is in," "who is out," and what is required to be a member. Also, the concern is with the kinds of members these groupings attract, select, and retain.

For faculty, general membership comes with being hired into the Department. According to the departmental by-laws, the Chair makes the appointment with the Dean's concurrence. The authority of department heads were restricted in the late 1960s when their positions became identified as department chairs. Department heads traditionally had authority to adjust salaries, promote faculty, and recommend tenure.

This required an understanding on the part of the department head of what each member was doing, which could readily be done in small independent departments (Interview: Faculty 7). Staying a member (i.e., being promoted to tenure) now requires peer review and chair recommendation to the Dean. For faculty, retirement is not a point of being excluded but more an entry into a more relaxed pace of life. The Department continues to provide office space and limited clerical support for six retired faculty--some of whom maintain very active roles as consultants to commodity groups.

When asked what it takes to make tenure in the department, the most general response was: "do a good job," "get along," and "do good research." The Department does not have a history of "publish or perish" as a key to survival. From older members and those recently receiving tenure, the most important element was "to do a good job" at what ever they are assigned (Interview: Faculty 1, 4, 8). Other departments at the University are known to espouse those values but still hold a lack of journal publishing against those who are seeking tenure, even Extension personnel. This Department will only use a lack of research publishing as a discredit for those who are deficient in other critical areas. While the Chair has the final "say-so" to the Dean for promotion, a committee of peers is utilized extensively to make recommendations to the Chair.

Faculty, by the very nature of their being a part of a university, join an academic culture that transcends any specific college or university. In the Department, they are hired to fill positions that have varying appointment ratios for extension, research, and/or teaching requirements.

One way to decipher Graduate Student membership is to use simple criteria such as "who is listed in the phone book." From the standpoint of phone access, the

University staff directory for this Department is rather inclusive of faculty, clerical staff, research technicians, graduate assistants, research center managers, and professor emeriti. Graduate assistants are often not listed individually in many University departments. In this Department, a large majority of graduate students are on at least half-time assistantships (year-round) that are directly connected to their respective major professor's research funding and interests. The specific research dollars go with the professor and do not go with the student if he/she switches professors. Consequently, students join a research-oriented disciplinary group. Also, the student will most always have office space co-located with three to five other students in the same disciplinary study. This leads to a stable environment and a greater sense of identity within the disciplines but not between them.

The Clerical Staff is a small group of 15 (two are half-time) members. Their most common trait is gender--being exclusively female. These individuals are not a cohesive group of peers, but were independently hired by each suite of faculty to provide staff support for that group. They are often self-selected by their background, experience, familiarity with the Department interests, or a genuine desire to be employed in a department that is "known to treat its staff well." Interpersonal relations are a key to success here. "Patience" and the "ability to work with a wide range of personalities" are the oft-noted response to, "What does it take to be successful?"

Socialization. A crucial activity of any worksite organization is its efforts to orient and make new members welcome. Through the questions asked, the search was to discern whether the Department, formed from three historically strong departments, was socializing new members on a regular basis and might even have a formal process to let them know about the Department. Questions were asked to

find out "how new members found their way around," learned how it operates, determined "where to go for information," and whether someone takes newcomers around to meet others and "show them the ropes."

Findings indicate that there is no formal system in place for Departmental employees. Newer faculty indicated that information on "where and to whom to go for specific information," and "how to initiate the research grant process here" would be most useful. Two new faculty members were observed being quickly introduced to the group at faculty meetings. But then it was incumbent upon the individual to seek out information on his/her own–often, first communicating with other newcomers in their office and then within their discipline. The farther their office was from the central Department hub of activity, the more likely they would be isolated in their office/laboratory (Interviews: Faculty 2, 3). Their other option, as observed, was to initiate conversations at social events, and then finding themselves meeting the same few members who regularly attend. On the other hand, two older informants were amazed that a formal process was even being discussed. They indicated that the Department does not have a role or need to do that (Interviews: Faculty 8, Clerical 4).

With the graduate students, however, there was an annual Fall Term student orientation. The one hour formal session consisted of introductory statements by Department faculty about key administrative roles, the sharing of information about the graduate student organization, and the communication of other general academic information. Approximately one-half of the 72 graduate students, both old and new, attended the most recent orientation. Afterwards, there was an informal session that was held at one of the research centers and attended by approximately two-thirds of the graduate students, one-half of the faculty, and one-quarter of the clerical and

technical staff. It was here that introductions were given by each member--their interest or work area, name of their major professor, or research focus. Food and refreshments were available and some members stayed to play volleyball, while another small group of faculty, staff, and students went on to a longer session at a local eating-drinking establishment (Field notes 9/22/89).

The graduate student organization has traditionally held one formal meeting at the beginning of each academic session--just three per year. Attendance is small, and the meetings have tended to be business-oriented. Only recently is the graduate organization, through a new social committee, initiating separate and regular social activities in order to bring students together--with moderate success, primarily tied to athletic sports teams. It was noted as a problem by graduate students that, because there were so many students, they rarely knew or ever met more than the few in their specific research projects or office (Interview: Graduate 4, 5).

For clerical staff, the situation is more unique because they are the ones to whom other faculty or graduate students come for information on procedures in the Department or at the University. Older informants indicated that, while there was no formal orientation process for newcomers, someone would usually take them around and introduce them to others (Interviews: clerical 3, 4). But, to the contrary, most new members indicated they were not formally shown around by anyone else. The newer informants indicated a desire for some basic type of information on the Department (e.g., procedures and policies). When they desired information, they would have to go to another secretary, the Department office, or ask their suite faculty (Interviews: Clerical 1, 2, 6).

The primary administrative reporting system for the clerical staff is to the faculty for whom they work in their suite of offices. This is where clerical staff are to formally learn about the Department and expectations of them. There is great variation between suites on how much orientation the suite supervisors will do with new clerical staff--from none to a lot of support, information, and encouragement. The onus is upon the clerical staff to visit the outlying research centers on their own and really find out about the "phantom [test specimens]"--to really know what their faculty and students are doing. One clerical staff reported that, several years earlier, the Department had a scheduled clerical staff visit to the research centers to meet the research center managers and find out what went on was indicated to be a positive activity which brought many unknown members together for a day. This, however, has not been repeated.

Identity Issues. This reflects how people identify with the Department's goals and values and thus feel as being a part of it. There are a series of activities and events that provide identity to members in the Department. While some of these are Department-wide, the bulk of these are disciplinary and commodity-based, and reflect the professional development orientation of the Department in directing student education.

The most noticed action on the part of the Department to make newcomers welcome is with students. On the way in, formal and informal orientation sessions are held with each new group of graduate and undergraduate students. Faculty are reminded at the faculty meetings of the importance of these events, as well as of the need to recognize students by attending graduation ceremonies (Field notes: 9/18/89).

On a Department-wide basis, social events have had a tense history in the Department. Summer picnics, as observed and reported by others, attract only 15-20% of the potential attendees. In past years, Christmas parties were seen as a regular sore spot, depending on who organized it, where it was held, whom the target audience was (adults-only or families), what type of food was served, and the cost. The most recent Christmas party, held at the end of student exam week was a widely acclaimed success. Its cost was low, families attended, and potluck snacks and beverages were served. It was held off-campus and there was dancing. The success was credited by the Chair and others to its not being planned by faculty but by clerical staff and graduate students (Meeting: 12/19/89). Less than one-half of the Departmental faculty were in attendance. Approximately 50% (10) of the Alpha-based faculty, 31% (5) of the Beta's, and 10% (1) of the Chi-based faculty attended. This ratio is typical of many informal events observed.

It is mere speculation to think that a higher percentage of the Alpha faculty attend because they grew from a more-positive family orientation. Conversely, Chi faculty grew out of a autocratically enforced family consciousness–now resisted.

Another identity item in the building is the use of signs for directions and room identifiers. Those signs present are still a mix from the days of three separate departments. There are different types of materials and styles used: wood and plastic, different colors and lettering style, some overhang into the hallway and others are wall-mounted. There is one Department building directory, but it is not at the most widely used entry point. As one person quipped: "You must know your way around in order to find your way around." In some instances, when there are no clerical staff located at some office suites, one must "hunt around" for someone who can take messages for

the faculty. One faculty only recognized this as an issue when this researcher inquired about it.

For internal recognition on a commodity group basis, the building is noticeably lined with **black/white photos** and **award plaques**. The photos cluster into three major groups:

1) Beta-based photos of clientele "producer award winners of the year" (32 photos), and past Beta department chairs (7 photos) recently moved from a renovated conference room to the corridor.
2) Alpha-department groupings of pictures (16 framed clusters with up to 6 photos each) of student members of commodity-based evaluation teams--some dating back to the early part of the century.
3) An Alpha-based office suite with its faculty members' photos in the hallway and, inside the suite, an overhead row of photos of recent graduates of the same faculty.

The plaques (8 awards--2 with multiple plaques) recognize Alpha and Beta commodity-based faculty, students and clientele groups and some serve to recognize donors to the University. A recent one recognizes individual and commodity-group donors for establishing an endowed professorship in the Department. Another one is expected to be mounted to recognize faculty members and commodity groups that have made personal contributions toward the recent renovation of a Department conference room.

The most noticeable aspect to these awards is that there are none for Chi-based activities. When asked about this, one informant indicated that his commodity-field had gotten away from those "trappings" over 50 years ago. He stated that the field

was ahead of the others in the rigor of its research base and venturing away from "the frills." The Chi group does have a few older photos mounted in its Extension-based office suite. There was concurrence by others that the photos and awards are, in one sense, a "cover for young disciplines" not sure of their stature--the greater number of awards and "showy" display correlated with less solidity (Field notes: 12/21/89).

One interesting aside is that two photos in the set of seven former Beta heads (relocated from the renovated conference room) were installed in the wrong chronological order. They have remained that way for six months, even after the researcher mentioned it to two members of the Beta-group. Their responses were of a lack of concern, almost amusement. One faculty informant was more surprised that the cluster was recently moved to the hallway near his office from the renovated conference room. There was little concern for any meaning in the photos themselves.

Graduate students, when applying for admission, either apply "to" and "for" a specific professor and research interest or are assigned to one. Once aboard, the whole of their **professional identity** is primarily wrapped around the research discipline and not through the Department. In order to survive the system, the students must attach themselves to strong mentoring professors; their research support is attached to the professor and does not transfer if the student does. During each week, the disciplinary groups holds its own seminar series, either during the noon hour or afternoon. It is here that students are expected to report on the development of research programs and, later, the reporting of their research results. Technicians, faculty, and students attend these to support each other and to develop their ability to make professional presentations. Generally, these individuals stick to their own groups

and do not attend seminar sessions of other disciplinary groups within the Department (Interviews: Graduate 2, 4, 5).

From beginning to end of the graduate student's stay in the Department, their primary focus is to the discipline, and then to a commodity group. [For undergraduate students, the primary identity is to the commodity-based line of study.] Graduate students in social settings were observed to have limited familiarity with each other. This separateness is accentuated because students are assigned to certain offices by research focus. There is very little ongoing social activity to gel them together, and there is just one graduate student association meeting per term, which few attend.

The Department encourages recognition by encouraging nominations for faculty and student awards each year. Students are recognized in the Spring at the Department banquet. Some of them, along with faculty, also receive awards from their professional associations or commodity-based groups. With respect to clerical staff, because a faculty committee could not agree on award and recognition criteria, no regular awards are made (Department Records).

When informants were asked with whom they most identified in the Department, the responses varied but were consistent by groups. Younger/newer faculty first identify with their peers in their office-research suite. Older, more established, faculty identify with their disciplines first, peers at the University with a similar focus and, then, members of other universities in the same research area. Clerical staff either split between other secretaries, first, or with their office suite. There is a core group of six or seven clerical staff that regularly takes breaks together, plans social activities, and serves as support for each other. The others are quite independent and are

infrequently seen at non-work events and they identify primarily with their "bosses"--"their guys."

Structure. Being a university department, the organizational structure is, by its very nature, relatively flat-horizontal (see Figure 2). Faculty members are autonomous individuals with little or no control direct over their activities by the Department Chair. The structure in the Department reflects the decentralized nature of decision making for staff activity and is administratively centralized to facilitate communications with the Dean.

The faculty (43 active members in the building) are physically disbursed in twelve clusters of offices on two floors of the building. Two of these office clusters do not have clerical staff in them, while three others have more than one clerical person.

There is a set of six group leaders in the department who serve to coalesce thinking in their interest areas (e.g., Extension, Undergraduate and Graduate Teaching Coordinators, and commodity interest groups) and who periodically submit policy papers to the Department administration. They serve as a "staff-on-call" to prepare position papers on subjects of interest to external advisory groups. This is not a decision-making body.

According to its By-Laws, the Department organizational structure consists of five major components: the Chairperson; Advisory Committee; Undergraduate Student Affairs Curriculum Committee; Graduate Student Affairs and Curriculum Committee; and Safety Committee.

The current Chairman was selected from within the Department membership approximately five years ago. He stepped into a tradition-bound position because he

replaced the individual who had remained as Chair from the Alpha department after the mergers in the early 1980s. He is noted for introducing more committee-based advisory input, in contrast to a tradition of unilateral decision making by the Chair.

The Advisory Committee membership consists of five faculty members and a graduate and an undergraduate representative. The committee's purpose is: to serve as an open channel of communication between the Department faculty, students, and chairperson; advise the Chair on promotions, tenure, and grievances; and prepare the agenda for faculty meetings. The Undergraduate Student Affairs and Curriculum Committee serves primarily to review and evaluate courses, curricula, and degree requirements; handle teaching grievances; and monitor advising and job opportunities. This committee consists of four faculty, one graduate student, and two undergraduates. The Graduate Student Affairs and Curriculum Committee serves to develop, advise, and carry out policies on graduate student curriculum, and advise the Chair on the allocation of assistantships. This committee consists of three faculty members and one graduate student. The Safety Committee is composed of two faculty members, one graduate student, and one technician. It provides guidance with respect to safety practices, trains new personnel on safety regulations, and maintains reports on training.

All faculty positions on the standing committees were filled by elections supervised by the Advisory Committee. Terms of office were for three years and the terms are staggered to provide continuity.

Clerical workers, as implied above, do not have formal input to the Department administration on a regular basis, particularly not for decision making. Individually, they report to their cluster of faculty bosses, and there is no other supervisory position over them from the main Department office. Without any formal mechanisms to provide

feedback to Department administrators, Clerical Staff are quite divergent in their feelings toward the Department. Those that have a good day-to-day relationships with their suite supervisors are more satisfied with the Department and their jobs. In those instances where the suite faculty are less communicative and more controlling of work tasks, there is more dissatisfaction expressed. In addition, clerical employees must initiate any formal meetings with the Chair--primarily to resolve or discuss issues or grievances. There have not been any meetings in over a year, since the end of the University-wide Clerical-Technical strike.

From a rules and procedures standpoint, the Department's policy is "to have as few policies as possible." (Interview: Clerical 8). The existing written policies pertain to safety training protocols, test sample procedures, and a smoking policy that was found posted at the computer room door.

Interpersonal Relations. On the whole, interpersonal relations are a strong feature of the department. Yet, they tend to cluster differently for each employee group of the Department. For faculty, the clustering of relationships is first by office suite, discipline, commodity groups, professional association, other faculty and, then, Department. For graduate students, the primary relationship cluster is by graduate office, research professor, research discipline, other graduate students, and the Department. For clerical employees, the hierarchy begins at the suite level first, other clerical next, and, then Department.

Environmental Relations. The Department is not able to create its external environment or its clientele. It does, however, try to develop and nurture those relationships. To do that, it must simultaneously adjust to the economic, physical, and social environment which affects the enrollment of students, the degree to which

the commodities are valued by students and the public, and job opportunities for graduates. Traditionally, the Department has had to channel the energy, political power, and economic power of a variety of commodity groups, which are often at odds with each other. In the past year, the Department has taken on an initiative--now under the Dean's leadership--to channel the commodity groups' collective energies into a force for political and economic power that can improve the Department's ability to teach, do research, and carry out public service programs. The Department's survival in the past, now, and into the future strongly hinges on the ability of its faculty members to work well with their single-interest clientele groups.

The purpose of reviewing the function of culture was to create a basis for determining possible sub-cultures. For example, membership defines the boundaries of the sub-cultures. Faculty join a collegial setting that pervades universities in general; graduate students are joining a smaller set defined by a disciplinary study; and clerical staff are almost independently joining and attaching themselves to an office suite of 3-6 faculty plus their respective graduate students. Socialization issues are also found to vary within the Department. Clerical staff who are often expected to be socializers of others, particularly students and faculty, are themselves not introduced to others or taught administrative procedures in a consistent manner.

Implications for these groups are that when major items like health promotion are introduced into the Department, individual members are not sure how to respond. There are multiple channels and mixed messages as to how and whether the Department administrator support participation.

Structures

Besides the imposition of a functional review as one basis to sift sub-cultures, one can use other assumptions that are structural. The structural basis is used next to **test for sub-cultures along the hierarchy of employee groups**: faculty, clerical staff, and graduate students. It is expected that, after this next search, a hierarchical ordering of sub-cultures can be made from their relationships to the dominant culture.

The most overriding, but not surprising, finding is that the clustering of employee groups--faculty,support staff, and graduate students--represent the most pervasive groupings within the Department. This is true whether one looks simply across the Department or within each of the three root departments. In most respects, the faculty are imbued with the manifestations of culture that are evident in any other sub-groupings. In looking at the history, tradition, and symbols of the culture, the search is most always within the faculty ranks--how they differentiate themselves causes the support staff and graduate students to differentiate as well.

It is male faculty members who have built and shaped each of the three root departments. Faculty, by their very nature, have had much longer tenures within the Department and the University. Graduate students are typically in the Department for two to three years in the M.S. program or five to six years in the Ph.D. program. Most support staff, even while having University experience prior to the Department, have not been in the Department much longer than ten to twelve years.

Each one of these strata will be reviewed based upon four constructs: security, peer relations, power, and personal control.

Security refers to job security, both with the University and the Department. Faculty have the most security of any group in the University. But this is predicated

upon peer review, the recommendation for promotion by the Department Chair, and approval by the Dean. Faculty, when interviewed, responded that tenure decisions were based upon: doing a good job in their primary job duties; fitting in with supporting group effort; publishing articles, if it was appropriate to their job; and obtaining the support of co-workers. From those just recently tenured, and for those for whom it looms, the "publish or perish" mentality of some departments is not a fearsome thing in the Department. It was readily admitted, though, that lack of research publishing may be held against individuals if their other work performance was not deemed acceptable.

For the graduate students, security meant: doing good research, being involved with outside projects, assisting and being involved with other graduates, and "hanging on" to the appropriate research advisor. These informants did not convey any insecurity. Getting accepted into the Department was rigorous enough for the faculty to feel confident of their abilities.

Clerical staff were almost unanimous in indicating that security is a function of: doing a good job; being patient with personality differences; and ability to get along with a variety of job interests. Due to University and Department budget cut-backs, they recurringly have the least job security. Yet, they expressed confidence in their ability to perform under stressful conditions.

Peer relations for faculty are of a collegial nature. As a professional-type organization, the Department functions with one-quarter of its membership operating as "chiefs"--equal members in charge of the tribe.

The graduate students, more so at the Ph.D. level, are training to be "chiefs." Because of their short duration in the Department and strong mentoring relationships

received here, they align most within their research discipline and with those faculty members.

For support staff, peer relations are strengthened most by their defenses against the faculty. Relationships are strained at times between faculty and clerical staff and sometimes amongst clerical staff. One issue that causes the clerical staff to be most aggravated is faculty not following agreed upon hiring and interview protocols. Clerical staff serve as the tribal "indians."

Power reflects the ability for decision making within the department--participation and control of others' activities. The faculty (the chiefs) are, in most senses, co-equal in decision making authority. It is their agreed-upon organizational structure that gives some members greater roles than others. Faculty represent the majority members on all standing committees reported earlier. Department By-Laws give them certain authority for peer reviews and personnel matters not available to others. Faculty, by seniority rank, are designated suite supervisors, responsible for coordinating and supervising activity within each office suite. And most directly, they are responsible for hiring, evaluating, and supervising the daily work activity of the suite support staff.

Graduate students are quite structured in their educational program, as far as being research-oriented, narrowly discipline-focused, having maximum time limits for which financial assistantship support is granted, and following other mandated program schedules for committee formation and annual reporting of program progress. Graduate students, via their student association officers, have minority membership on almost all Department standing committees. But their own power and ability to professionally succeed hinges upon working with the "right" professor who could enhance their research skills.

Clerical staff, as reported, are not represented on any standing committee in the Department. Out-of-suite activities are limited to short-term committees, primarily of a social nature like retirements and Christmas parties. Their authority to make decisions, set own schedules and work priorities varies by office suite and among the many unique personalities within each suite. One clerical information was asked why the faculty in her suite were not using wordprocessing equipment, which forced her to spend many personal hours typing their letters and manuscripts. Half seriously she indicated that it was in her best interest to not have the faculty members learn to use computer wordprocessors: "Then they would not need her anymore." Her personal powers mean they had to be dependent upon her for formed documents leaving the office.

The last construct, **personal control**, represents independence of work effort and the ability to control one's own work activity.

Faculty members are very independent and in control of their own time, both at the worksite and away from work. Most indicate that they do not have much freedom in these things because of many conflicts in external demands on their time. But it is how they respond that sets them apart from other groups. Most consciously choose to be overloaded by work and time pressure (Interviews: Faculty 1, 2, 3, 10). When asked about their normal work hours, the "before 8:00 AM to 6:00 PM" schedule was most common. The majority stated they work four to twelve hours at home each week in addition to their office schedule, plus additional weekend activity at the research centers. Older faculty acknowledged that they are trying to reduce their work away from the office--breaking their own habits. In addition, a majority of faculty stated they only expect a minimum of an 8 AM - 5 PM work schedule from other Department

faculty. But, in possibly only one case was that minimum close--the norm was for ± 60 hours of work per week. Their independence was accentuated by their ability to set aside extra time during the lunch hour or regular work hours to exercise or otherwise be away from their office.

Graduate students were "locked into" the demands of their class work and research time tables. Individual research projects were the biggest factor in bringing about great fluctuation in time spent either in the Department's labs or at the research centers--sometimes demanding a commitment of seven days a week and at odd hours of the night. But this was not out of line with the background and experience of many of them--the food technology production field simply expected it.

Clerical staff had the least independence because their job assignments, work priorities and break times were established by their faculty bosses, Department administrators, and the University contract with employee labor unions. Their ability to take extended lunch hours, compensation time, or adjust their break times were not under their control--at least not until they had come to a mutual understanding with their suite supervisor. Their flexibility was dampened for a while by a Department memo, after the Clerical-Technical strike, that restated their work and break times. The memo, while simply a restatement of Department policy, was seen as out-of-character from the Department administration. In all cases if there was any flexibility, it was a "quid pro quo" agreement based upon compensating for any non-regular time off.

Another approach used for the structural search for sub-cultures is with groupings based upon continuing alignments within the three root departments. From a historical perspective, the department still represents three separate groupings aligned along the commodity-based roots as established earlier. Prior to the merger, graduate

students identified their focus by commodity grouping and then disciplinary specialty within that. After the merger, the Department integrated the few overlapping disciplinary-based activities. Graduate students now specialize within a disciplinary base and secondarily focus on a commodity area. But undergraduate students still identify their study areas by commodity group. These alignments were discussed earlier.

The Department's and individual faculty relationship with clientele groups affects the perpetuation of the original root-based department focus. The Alpha group still represents multiple commodity areas, each with its own trade association protecting and perpetuating their own interests. The Beta group is a single commodity group that is very powerful--economically and politically--in the State. Its clientele are not pleased with the integration of its interests with other food technology interests. In most mid-western states, it maintains more of an independent status in land-grant universities. The Chi group has changed with respect to a shrinking clientele group--representing fewer numbers but each more powerful. Members from this root indicate that this facet of the Department is becoming subservient in the Department. For the ability to maintain critical mass of expertise, it must regionally link up with other states to maintain viability (Interviews: Faculty 10; Field notes: 12/21/89). This most always happens when Chi-based commodities are merged with other larger commodity groups.

There are two levels of decision making found in the Department, each with differing sets of markings. The first involves the formal structure for managing the Department. The second, entails the informal decision making aspects.

It is at the **first level** that integrative decisions are concerned with the maintenance of the Department system--"running the shop." This level is controlled by the faculty in general. Because of the de-centralized nature of the Department--physical

separation and by research disciplines--routine activities of individual office suites are handled by those members. Hiring, promotion, and evaluation of support staff are handled there. How and whether the telephones are answered is decided there. The type of wall decoration, pictures, and displays about their activities are decided there. Scheduling of individual time-offs, vacation, and leaves are decided there.

All standing committees in the Department are advisory to the full faculty and to the Chair. The formal Advisory Committee functions as a the first line of faculty representation. Its formal record indicates numerous information items, making recommendations to the faculty, and setting the faculty meeting agenda. The full faculty meeting is not a direct decision-making body, but it serves as a primary information dissemination channel to the Department. Consequently, input from the Advisory Committee becomes the recommendation back to the full faculty. It was reported by some informants, that a number of sensitive discussions were brought up within Advisory Committee meetings that were not discussed by the Department as a whole. Some of these involved student-faculty relations and dissatisfaction with decision making procedures.

One of these was the comment by informants that the committee system in the Department was not used effectively. The perception was that, while many important issues were referred to committee, the process was not respected and sometimes used to avoid open discussion. In some cases, decisions were still made irrespective of the committee recommendation (Interviews: Faculty 5, 10; Graduate 5). Because the Department members were historically used to more unilateral decision making by the Chairs, current discontent is directed at loss of "respect for the process" rather than discontent with the actual decision outcomes.

As other individuals commented, there appears to be a **second level** closely aligned with the previous Alpha department affiliation that makes the critical decisions. It was stated by a number of informants from Beta and Chi that Department members aligned with the Alpha-group interests are thought to receive computer equipment and information before other groups in the Department. Because the current chair was appointed from within the Alpha root of the Department, a built-in bias is attached to those with whom he works closely. The informants do admit, though, that no matter what root the current Chair might have come from the same perception would get tagged to the position. With that in mind, they suggest that hiring the first combined Chair from outside the Department would have portrayed greater sensitivity to impartiality. (Interviews: Faculty 5, 10, clerical 3, 5).

One member indicated that the Chair "brings together a bunch of people after work on about once a month" to release tensions and have a few drinks (Interview: Faculty 5, 10; Clerical 3). There was found to be a small group (six to ten faculty, three to four other employees) that would meet to celebrate holidays after the normal work day, with snacks and drinks. After other events, such as the student orientations, this same bunch would also go to a local restaurant for food and drinks in the evening. It was not an exclusive bunch, however, some members felt excluded. No faculty members from Chi root department were found present, and only one or two from Beta group would sometimes be present. One support staff from Chi would regularly attend as a close peer to the others, but none would be present from Beta. Graduate students were almost always from Alpha. Although this might be a natural association of the Chair with faculty in his professional area, this is found to be the "supporting

players" for the big decisions of the Department. Faculty outside this group supported this finding.

While receiving an invitation to attend these sessions from a Department member, this researcher always felt welcome at these occasions. Faculty discussion tended to run on Department issues but in a more relaxed manner. These same faculty were noted to be the ones who, if anyone did, spoke out on discussion items at faculty meetings.

The organizational structure, split between faculty, graduate students, and support staff was used, to review issues of security, peer relation, personal power, and personal control. Again, the faculty have the most pervasive control over their day-to-day activities, the graduate students' flexibility within a narrower range, and the clerical staff had the most control when working with faculty that afforded that to them.

Summary

The second question, in asking whether sub-cultures in work environments can be identified and understood, is answered: yes, there are identifiable sub-cultures. There were two approaches used to decipher the Department: a review of the functions of culture and analysis of hierarchial employee structures.

The strongest identifiable sub-culture is according to **employee groups**. This characterization is most typical of most academic institutions. The faculty have the greatest latitude, both professionally and personally, to control their work lives and job performance. This extends to the graduate students but is least true for support staff. The next strongest sub-culture is formed by **disciplinary groups** and **office suites**. At this level, each grouping forms its identity based on the strengths of the commodity-

based disciplines, each of which varies over time. The office suites are arranged according to disciplinary interests and, within each, the faculty and accorded the most independence and control. Even though the support staff gain more power at this level, however, the graduate students receive more support and attention of the faculty. The next strongest sub-cultures are the older members that still remember and identify with the three root departments. It is from these units that the disciplinary groups were formed and strengthened. It is within one of these root-based sub-cultures that a smaller sub-cultural group was found that is closest to the key Department administrators and provides a "sounding board" for decision making.

Does the nature of the worksite culture or its sub-cultures influence the adoption of innovations?

Before describing how the health promotion innovation was received in the Department, there will be a brief discussion of its introduction at the University level and how it was diffused to different departments. Then, health promotion's impact at sub-culture levels will be reviewed and an assessment of its current status.

University-wide Initiative

In the latter half of the 1980s, the University received a renewable grant from a national foundation to test the interest and need for health promotion activity. After one year, the University received a three-year, two and on-half million dollar continuation grant to demonstrate health promotions' feasibility at a major university institution.

A small number of full and part-time staff directs the health promotion services to the wider university level population. It is their purpose to stimulate and promote the activities of over two-dozen sub-projects, each with its own leadership, staff, and interests.

Part of this original initiative was to transfer sustainability of the general health promotion activity to the University after the three year period. From the beginning, however, it was never understood what sustainability meant, and whether it was a primary activity of the central office or the responsibility of each sub-project. They developed divergent interests and were directed at different clientele at the University (e.g., students, university employees including grad-students, international students, summer day camps for children in university housing, health promotion curriculum development, and occupational health and safety). While the central office has been trying to develop a University-wide identity, each of the sub-projects has struggled to create its own identity and footing within the academic structure in case the university-wide venture does not succeed. Individual sub-project success is partly predicated on how much they became embedded within existing academic and service units. Those that remained separate had a greater struggle to remain viable.

Unit-level Initiative

The specific sub-project, in which this research is housed, specializes in health promotion services at the organizational worksite level. Faculty consultation is provided for administrative expertise and health behavior content while primary contact with departmental employees is by Graduate Assistant leadership.

During the Fall of the first year and under the ageis of the University health promotion effort, the project director, another faculty consultant, and this researcher met with the Department Chair. The meeting's purpose was to lay out the quasi-experimental evaluation design for the health promotion project that would assess change across multiple work environments.

The Department's role was to be a control site over a one year period. The Chair appointed a faculty contact person who had familiarity with the University health initiative. The project manager and this researcher met to find out how to distribute notices and flyers to encourage participation in planned activities. This researchers also met with the full faculty to discuss the project and timeline of activities for a two year period. Few questions were raised at that time.

In the Fall of 1987, a health fair was introduced into the building for a two day period. Among the health measures provided were total cholesterol, heart rate and blood pressure, cardiovascular risks, and computerized health and lifestyle feedback. There were 78 individuals associated with the Department who went through the one-hour screening: 55% of the faculty, 29% of the graduate students and 71% of the support staff. (Undergraduate students were not considered Department employees; they were eligible for services in other sub-projects.)

Concurrently to that, a questionnaire survey packet was given to each health fair participant and one was sent to each non-participant of the Building. The return rates for the questionnaires were 55% of the faculty, 31% of the graduate students, and 46% of the support staff. A higher rate for faculty and lower rates for graduate students health fair participation and survey returns characterized this site from others to follow.

On the other hand, a significantly lower response rate by the support staff, particularly the clerical, raised questions of possible tension in their work environment.

During the end of the same year, two other campus buildings were systematically selected for health fairs as a pre-test and introduction of health promotion programs. They were scheduled for post-test evaluation the following year, along with a fourth building that had no specific intervention.

Beyond the first health fair and the survey returns, there were no formal contacts with the Department until the beginning of Fall, one year later. At a scheduled meeting the health project director and the researcher met with the Department Chair to restate project goals and reaffirm the intent to initiate a post-test health fair and soon, thereafter, introduce health programs.

The Chair agreed to appoint an employee committee to guide the interaction and communication in the building. This researcher again met with the full faculty to review the project activities of the health fair, and surveys that would precede the health programs. He also met with the clerical staff on a scheduled day during one of their regular break times to discuss the project and elicit their support.

Departmental Results

At the organizational level, the introduction of health promotion was at first a Chair decision and, then, a consensus agreement by the faculty to passively allow entry (gatekeeping). From the Department's standpoint, that was all it needed to do--allow a service to come in and be provided to the employees. This was the collective innovation-decision discussed in Chapter Two. Before members could join programs in the Department, health promotion had to be allowed to enter (sponsored).

It then became a factor of promoting the same health promotion service to all the employees as individual decision makers. But these individuals did not have specific measures of direct support or encouragement from Departmental administrators. The Department Chair decided to not make a formal statement to encourage employee attendance at the health fair. The decision of whether clerical staff could attend health program meetings during normal work hours, with or without compensation time, was left up to individual suite supervisors. Department administrators decided to not make recommendations to other faculty in support of release time for health programs. Because clerical staff are under the pressure of three to six faculty bosses, their desire or intent to attend was restricted by work pressures.

Participation

Just prior to the health fair, a Department-wide introductory and information session was held for employees. Individual discussions were scheduled for each health program offered; exercise and fitness, smoking cessation, weight management, and stress management. Being offered at a relaxed time between academic terms, a large turnout was expected, particularly for the health oriented refreshments available. Just 10% of the Department membership came for the orientation, but they were enthusiastic and showed strong interest in the stress management program.

It was found that one-half of the 18 members who initially participated in the health programs were clustered in two of the twelve office suites--faculty, staff and their corresponding graduate students. The other half were primarily in pairs of employees from other non-Departmental offices in the Department or from other offices in the building. No members from the Chi group were participants, even thought they

expressed initial interest in the stress programs. In fact, the only two health programs that were able to gain enough participants to continue were weight management and exercise-fitness. What did distinguish this Department from other units where the health project had worked was the higher proportion of faculty program participants. Of the ten percent of building members participating in the first round of health programs, over one third of them were faculty members--in contrast to other University departments that went as low as three percent.

Faculty, as a whole, have much personal control and flexibility in scheduling their time. It was acceptable for individual faculty to take time out of their work day to exercise. Some exclusively did it during their lunch period, but taking time beyond the 60 minutes was routine. For others the last hour and a half of the day were regular times to be away from the office.

In general, graduate students did not participate except for a small cluster that came from one strongly supportive disciplinary-based suite in which the faculty supervisor participated. For the clerical staff, there were different issues at hand. All but one indicated their suites would allow them time to participate in a program during normal work hours as long as they made up the work time. But they also indicated that there were other suites where that would not be true--it was an individual suite decision.

When asked if the Department is a supportive, health-related environment, informants generally responded that it was--as long as it was stimulated from the outside. Allowing the project to enter was the primary supportive feature; counterproductive aspects were that it was not made a Department priority.

In an environment where the Department is fighting to survive intact and faced with severe budget cuts, the question was asked whether the unit would fund a one-quarter graduate assistant to manage health promotion activity. The unanimous response was NO. This was after a nearly unanimous declaration that health promotion was beneficial to employees for increased health status, productivity, energy levels, and satisfaction. The faculty reacted as though someone would lose the one-quarter time assistantship from their personal research projects. No one was going to forsake his own professional well-being for the good of the Department (and that was not even the question). The money, as agreed by many, would have to come from an outside source, such as the Dean. This was viewed as a "zero-sum" game for those in the Department. Furthermore, asked how others would react if, "at the next meeting of their co-workers, they were to state that the Department should make a long-term commitment of resources to health promotion," the common response was that most would support the concept, but not the implementation if it were to draw resources away from the Department.

The complexity and compatibility of the health promotion innovation was thought to assimilation affect the cultural innovation equally throughout the Department. Compatibility was found to have more variability by major sub-cultural groups.

Complexity refers to "the degree to which an innovation is perceived as difficult to understand and use" (Rogers, 1983, p. 15). It reflects clarity of meaning and simplicity of use to potential adopters. In the case of the Department, there were a number of procedural hurdles to get started: participating in an introductory/ informative meeting, then a health fair, an initial start-up meeting for each specific health program, and finally, agree on a mutually acceptable program meeting time. Each participant was

also asked to engage in an incentive system, commit six months to participate in a one-hour, weekly program, and investing $40 as a refundable deposit based upon success in the program. Attendance and adherence were perceived hurdles for individuals who were often gone or required to leave on short notice, particularly Extension faculty.

Worksite health promotion was not found to be an organizational priority in the Department. The Chair, when asked whether the Department members would have asked for a health promotion program on their own initiative, indicated that it would not have been a priority. Because of the decentralized decision making on matters directly affecting staff and faculty time, the issue simply became an innovation transferred to the individual level and not one at the organizational level.

Sub-Culture Results

Compatibility is "the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters" (Rogers, 1983, p. 15). Compatibility can be with values and beliefs, previously introduced innovations, or with member needs for innovation.

Examples include: 1) how the organization views health; 2) release time; 3) exercising on work time; 4) convenience: location, showers, time; and 5) compatibility with on-going research issues in the Department.

Department view of health. In general, health promotion was stated to be an appropriate activity of the Department. One faculty member indicated that it portrayed the University's commitment to its employees. It is useful for employees who don't regularly see a physician. There was almost unanimous agreement, otherwise, that

health promotion was an appropriate role of the University, even more so than the Department, to provide.

The commitment of Department resources to it was not accepted. In this situation, member and organizational gains were offset by the idea that research dollars would have to come from someone's research project, not the Department as a whole. Another faculty member, who successfully completed one program, believed he was helped personally, but did not think the Department would gain--it did not enhance his research career.

Most informants believe the Department--suite supervisors and faculty--would support attendance at programs. Almost unanimously, the informants agreed that health promotion is an important activity of the Department--to create healthier and more productive employees. And for faculty, at least, it is acceptable to exercise during normal work hours--many of them already do.

There was no perceived need that health promotion was designed to meet. For those faculty who believed that health is an individual matter, they are already exercising. At least some of the older faculty have either been exercising all of their life or stated that they got started in the mid-1950s in response to a strong "push" from the University intramural programs. Some could see the benefits for others, but did not perceive the need for role-modeling.

Early indications, prior to the survey, were that this Department could successfully adopt an activity that would bring about change in how it operated. But, now, there was little evidence that persons from a different employee groups could come together and work on toward the betterment of the Department and its members. Decision making, while often channeled through committees for recommendation,

primarily rested with the Chair. All groups, except clerical staff, were represented on some standing committee and all but the clerical staff had regular meetings together for mutual interests.

A problem arose when working with the employee committee: there was no mandate to the committee to look at how the Department affected employee health. Work climate issues, such as supervisor support relation, leadership styles, employee commitment, control of work tasks, and physical environment, can affect employee health status. Yet, once the health fair was over and the health programs were started, the employee committee members lost interest and motivation. It was found that some of them were being asked to participate even longer than they expected. They thought they were originally being asked to attend three or four meetings and not commit to an on-going series.

A commonly accepted fact of university life is that many employee have spouses employed elsewhere on campus. There are at least six faculty and clerical staff with spouses working in the Department or elsewhere at the University. This has created tensions among a few employees who were not comfortable working around married couples in close proximity. In one instance, a clerical informant indicated she had to take all the personal leave to deal with family-related illnesses because her husband's job in another department was not as flexible or supportive.

Release time. All faculty indicated that release time from work should not present an insurmountable problem--as long as the primary work got done. They did indicate that a few others might not agree. Two faculty saw enough "slack" in the clerical staff's time during the week that the staff's attending the programs would be a positive move for them and the Department.

Release time was not a similar obstacle to graduate students. They only attended if their time was not scheduled for classes or research projects in the first place. Clerical staff, at the beginning of the health program session, indicated that they were unsure of how the Chair felt about release time. Because that period immediately followed a clerical strike, relations were tense between faculty and staff--with great variation between office suites.

In general, though, the theme in the Department was that clerical staff would still work a traditional shift: 8:00 A.M. to noon and 1:00 P.M. to 5:00 P.M. Breaks were to be taken at 10:00 A.M. and 3:00 P.M. only. There was rigid adherence in some suites and flexible arrangements in others, though.

Also, due to the clientele-group orientation of the Department to its constituents, there was an almost sacred allegiance to the telephone--that it must be answered by a secretary. Partly due to an antiquated system based on the original three department separations, the phone system did not allow much freedom to transfer calls. It was found from observation and interviews that if a secretary was away from the desk the telephone would frequently ring unanswered; however, this response varied among the suites. Some faculty would not answer in place of the secretary, while others would religiously fill the void.

Exercise on work time. The historical tradition of the Department did not allow for faculty to break from the work day and exercise; "allowance for personal time would most always lead to its misuse." Against this long-standing norm, at least six faculty members regularly and independently exercise during noon hours. Two others would regularly play a competitive sport at the last hour of the day. For some, even their time

away from the office was so scheduled that, if they did not schedule the exercise during the day, it would not occur.

The majority of those faculty that regularly take time to exercise at work are seen as a unique bunch. One is a "loner" who regularly misses Department seminars; the others are part of the "decision group" or clustered in one office of the Beta group. Just about every faculty member interviewed was found to have some regular exercise in his schedule.

The graduate students, as is common across most academic units, are expected to complete their assigned tasks, irrespective of the number of hours or time of day. As a result, their work time was somewhat under their control, but it was not a commodity tradable to the Department for time spent in health-related activity.

Clerical staff were not found to use their noon hours for any health-related activity. The use of noon hours ranged from playing cards in the break room, to leaving the building entirely to eat--most always independently of each other. Two faculty were vocally advocating that clerical staff should or could take work time to exercise, as long as their time was made up; the expectation was that only their personal time could be used.

Faculty, while being good role-models for exercise and generally concerned about their health, are very controlling of their secretaries' time away from the desk. They express the importance of staff health and support their exercising during the noon hours but, when it comes to encouraging clerical staff to take off time or shifting the work schedule, there is much more reserve.

Convenience. One of the key reasons faculty indicated they could exercise at the work place was that lockers and shower facilities were available. The building was

built with these in mind to aid faculty coming in from the research centers, that could shower before having to teach classes. Because the showers are regularly used, they are regularly cleaned–at least for the males. Two female graduate students indicated that they used the ladies shower rooms but the facilities were not maintained well.

Two clerical members indicated that they heard bad stories about the showers and never checked them out. They indicated they would like to be doing some exercise activity at work, but "if they could not do them at work, the wouldn't have time when they got home." The clerical staff had the most need with their secretary jobs but were the least likely to take time for personal health activity.

One faculty and one clerical staff indicated that the proposed building renovation might be a good time to put in a weight room and "fix" the ladies showers. When the researcher broached the subject with others, there was hesitation to follow-up on it. As one clerical indicated, "it would be nice for them to do something for the clerical staff," most of them do not have access to windows or direct fresh air, as do most of the faculty and technicians in the building.

Compatibility with research issues of the Department. Much of the food technology research of the Department has had tremendous benefits for consumers, food producers, and other researchers. Because of their training the faculty and graduate students know a tremendous amount of health principles but do not generally apply that knowledge to themselves. In spite of their extensive education and health-related research, they do make limited application of the health principles to their own lives. Also, there was found to be subtle, and not so subtle, competition among the commodity groups. Public perception of food products and health risks raises the estimable value of some of the commodity-group products and lowers that of others.

Two faculty offices had cartoons and bumper stickers on their walls that "played up" the value of their commodity product by down-grading the worth of a competing one. Even at this level, health issues were not "win/win" but "win/lose".

For clerical staff, no connections between the health-related research of the Department and their personal commitment to healthy lifestyles could be drawn.

General Status of the Health Promotion Innovation

In Chapter Two, the issue was raised about what situations may require change in the strategy versus the need to change the culture itself. In those instances where there is a perceived need by the Department for the innovation and high compatibility with the culture, then the energy is directed toward managing the change. In this situation, health promotion is not a change deemed important to the Department. There is little opportunity to modify the health promotion content, but some chance to modify how it is delivered. Success may be best met by managing "around" the culture, without confronting it directly.

In this Department, there was a search to determine whether a specific health-related sub-culture could be identified. Questions were asked to four members about "workaholism" and "health nuts." An office suite the Beta group was thought of by others as a workaholic bunch, and one faculty informant from that office said his suite might be thought of as workaholics. But, instead, these members from Beta generally viewed others as not working hard enough (Interview: Faculty 4; Graduate 4, 5).

A "health nut" was defined by one faculty as someone who was totally obsessed with health aspects. He laughed as he stated that the Department had a small number of vegetarians amongst the traditional meat eaters, so that being vegetarian was no

longer deemed odd in the Department. One vegetarian student had to weigh her food interests against other commodity groups in the Department who took a more laissez-faire attitude toward the ethics and purity of food production techniques (Interview: Faculty 4; Graduate 2).

A critical finding was formed around the issue of smoking behavior in the Department. From a previous health habit survey in the Department, 13.4 percent of the respondents replied yes to "use of tobacco"--not significantly different from other academic worksites at the university.

Surprisingly, a small number of faculty were observed smoking in social settings not readily apparent to others. Two informants indicated that more faculty smoked than most others knew about; they just "snuck around" more. There were seven faculty and administrators observed or who admitted to smoking. All were part of the Alpha-based decision making group, as were most of the graduate students and clerical staff who were observed to be smokers. Smoking policies in the Department allow smoking in private offices, restrooms, and the break room. This is the one health-related behavior that parallels an identifiable sub-culture. In this case, it represents a negative health behavior--one admitted by two faculty as being reinforced by the relaxed social setting.

The clerical staff were pointed to by many members as being resistant to health promotion because they had a high percentage of smokers who were perceived very resistant to change. Almost one-half of the clerical staff are smokers, and most of them are in the core group of clericals who regularly meet in the break room together. Their heavy smoking has kept some other clerical staff from associating with them in the break room. Some stayed away because of their beliefs about health; others take

general exception to the smell; and one, who recently stopped smoking, did not want the stimulus reminder.

On another vein, one faculty informant expressed that many faculty who are over-achievers are often called upon to do more than is good for their health. He believes that talent is recognized and given its due reward, but sometimes there are too many tasks asked of those who perform well. In a Department that has members work seven days a week, the Department culture reinforces work-related behavior instead of relaxation.

University Health promotion Situation

In spite of the work of the central office for health promotion, the larger University environment has not fully embraced the health promotion philosophy. University-level administrators send inconsistent signals of health promotion's shifting priority to unit administrators and employees. Divisions for Personnel and Staff Benefits have not adopted the idea in any meaningful way. At the individual department level, some of the university-wide health promotion activities, such as evaluation surveys and special events, get confused with sub-project activities--to each other's determinant.

A major roadblock to some of the expected adoption remains to be the University's publicly stated financial situation. While it is implementing a multi-million dollar campaign for expanding buildings and "hi-tech" services, it is also going through a multi-year process of systematic cutbacks in general fund appropriations to existing departments. Across the University, this is leading to lay offs of support staff, non-filling of some vacated faculty positions, and severely reduced physical maintenance of buildings and offices. Even in a large organization, this leads to the perception of a

dearth of slack resources which are thought crucial to adopting many non-routine innovation.

Summary

This third question looked at how the nature of worksite cultures or sub-cultures influences the adoption of health promotion innovations. There is a relationship found between the adopting unit and the innovations. After a review of its development within the University and across academic units, the issues of complexity and compatibility were reviewed. Complexity entailed the number of activities that members had to pass through and a diverse package of personal commitments they made to be in a health promotion program. Compatibility, on the other hand, was a search for the normative goodness of fit between the health promotion service and the Department. In general, members believed the University was the appropriate unit for being concerned about employee health. The Department best served as a convenient location and support for the health promotion service but not necessarily the appropriate level for expecting labor resources or a financial commitment. The faculty most, graduate students next, and the clerical staff were found to be in least personal control of health-related activity at the worksite, particularly with respect to using work time for personal health activity.

Summary of the Health Promotion Innovation

It becomes apparent when looking at the Department that health promotion impacts on more than the individual's health status. At the broader level, it first becomes an innovation to the worksite organization in calling for its entry, support, and commitment to the effort.

In looking for patterns of adoption by sub-cultures, the strongest adoptive group was found by office suite--those that paralleled disciplinary groups. There were two office suites from which the majority of health promotion program participants were drawn. This emanated from the faculty and to their graduate students. In one other office suite, there was initial strong interest in participating but when the lead faculty member was not able to participate the support staff also had to refrain.

From another perspective, the incidence of participation was by employee groups. The highest percentage of employee group participation came from the support staff, next from the faculty, and marginal from the graduate students.

A continuing problem area comes from the wider University culture, which continues to send mixed messages to the academic units and employees about the value of health promotion and the level of University commitment to it. The Department confounds the issue by transferring the innovation directly to the individual and playing a passive role.

Worksites typically ignore or default on their potential role as facilitator of the health promotion adoption. Almost in conflict, the health promotion providers are staking claim to introduce health promotion services to the worksite organization as one alternative solution to the employee's health concerns. But until the University and Department administrators begin to adopt it, they become part of the problem.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

The Problem

The worksite has become an optimum setting for health promotion. The worksite is being utilized because: 1) it provides a **natural setting** (e.g., convenience, captive audience, and effective delivery location); 2) it offers an **intervention opportunity** (e.g., supportive environment, means to intervene in the work environment and the social system); and 3) it suggests an **economic incentive** (e.g., a fringe benefit to the employee, and reduced use of medical care resources to the employer).

Not limited to simple distribution of information and provision of educational programs, health promotion is a concerted action to bring about behavioral changes in individuals that will have a direct impact on their health. It represents an intended action by the health promotion provider, in collaboration with the worksite organization, that targets the employee as user.

A component less understood is that **specific organizational contexts** come into play when implementing worksite health promotion. This often requires changes in the worksite organization and its culture--how it operates and what it values.

The purpose of this ethnographic case study was to better understand work environments as cultural systems, including their sub-cultures, and identify cultural

factors that might influence the adoption and integration of health promotion as an innovation in a specific worksite. The case studied was an academic department in a large mid-western land-grant university.

Organizational Culture

Organizational culture, as examined through the literature, was found to be a pattern of basic assumptions--created to serve adaptation and integration functions--that worksite members reinforce and pass on to others. From this view, it was suggested that culture tends to: 1) become manifest in artifacts, values, and basic assumptions; 2) serve a wide variety of functions; and 3) be potentially found at multiple loci within an organization.

It is important to be able to identify organizational cultures or sub-cultures at three levels, those that: influence the decision to adopt the health promotion innovations into the site; influence the adoption of health promotion at the individual level; and encourage resistance (e.g., negative counter-cultures) to those changes.

Health promotion was first described as an innovation to individuals. It's complexity and compatibility are thought to influence individual levels of innovativeness. Organizations also affect the introduction of innovations by tempering or expanding their supportive role. It is proposed that organizations can display innovativeness among their five major aspects--products/services, production-process, organizational structures, people innovations, and policy innovations--as discussed at the end of Chapter Five. Innovations in organizations are influenced by leadership characteristics and internal characteristics of the organization, such as size, centralization, complexity, formalization, interactions, and organizational slack.

Worksite Health Promotion as an Innovation

While health promotion remains the **content** of change, the worksite provides the **context** for the change. It is the socio-cultural environment that rewards and encourages certain employee behaviors that are purportedly meaningful to the organization. Historically, certain health-related risk factors (e.g., weight, fitness level, stress, and smoking) have not been deemed a direct concern of some organizations. In these contexts, the individual was held responsible for any problems that may occur, such as sickness, absenteeism, or low performance.

More recently, worksites have become part of the "health promotion solution" by demonstrating increasingly higher support and commitment for employee health. Marketing and organization development are strategies that have been used to enhance the role and level of involvement that the organization may take in facilitating health promotion activity.

Increasingly, health promotion is described as an innovation; it is a set of ideas and practices that is perceived as new by the individual and the worksite. Thus, principles of the process of adoption of innovation by individuals and groups will probably also apply to health promotion at a worksite in an organization.

Field Research in Organizational Settings

Ethnographic analysis is the primary means for studying cultural settings. Organizational ethnography comprises the traditional ethnographic approach applied to the study of a non-traditional object of qualitative study--the organizational worksite culture(s). The specific participant observation methods that were used in this case study of an academic unit included: observation techniques, from unobtrusive to

participant observer; interview protocols, both formal and informal; and document analysis, of current and recent worksite records.

Specific steps of the methodology included: developing a relationship with the unit members; informant selection; data collection (i.e., developing interview schedules, interview protocol, and data handling); data analysis and verification; and presentation of findings.

Summary of Findings

The findings from this study were organized according to the three major research questions.

Can academic work environments be understood as cultural systems?

The initial search focused on the origins, or roots, that formed the Department. A viable cultural system was identified, based on the traditions of the three root departments and their convergence in recent years.

Each of the three units--Alpha, Beta, and Chi--was formed at the beginning of the 1900s and they grew in tandem with the University and its land-grant mission. While the members of each came from similar backgrounds, they maintained separate identities and had regulated professional relationships between the units. Individual faculty were found to collaborate among departments but inter-departmental activities were not supported.

The history of the University was integral to the development of the units. In their formative (early) years, characterized by stability, members worked longer at the office, had less control over their work time, and less personal freedom for self-care.

In the transformation (middle) years, when the three departments were physically joined in one building housing them all, each was held "at bay" from each other by fears of takeovers and external identification with specific and separate commodity-based groups. The departments, along with the State and University, went through a financial crisis and budget cuts at the beginning of the last decade. This precipitated the formation of the present department through the administrative merger of the three units.

Many of the older faculty members remember their original departments as "family units." They expressed a sense of loss now that the Department is too large to maintain the individual identities of its members. Physical isolation from each other and divergent professional interests detract from the earlier bondedness members sometimes felt.

The Department struggles to maintain and reinforce those commonalities found in people with traditional rural backgrounds. It has experimented with different teaching methods and environments to instill a flavor of rural community values into a student population that is increasingly coming from urban backgrounds and contains an increasing proportion of women, who traditionally had not been active in the fields represented by the Department.

As a whole it was found that this academic cultural unit was characterized by:

1) its relaxed atmosphere and openness of communication between members and to its commodity-based clientele (driven by information flow emanating from the Department office, and much more informal within certain employee groups);

2) its continuing financial stress that parallels the University and State's economic situation leading to an "everyone for themselves" attitude in some groups, perpetuated by the strong identity to external commodity groups; and

3) its value base highlighted by support for family and gender roles, strong work orientation, independence of work routines, collegial atmosphere, and personal support in times of crises.

Can sub-cultures in work environments be identified and understood?

The second major question went in search of sub-cultures that might be found in the academic work environment. The strategy used was to first sift through the functions that cultures are found to serve, and then filter it through the organizational employee structure.

The Department is still male-dominated at the faculty level, all female within the clerical ranks, one-third female among the graduate students, and three-fifths female at the undergraduate level. There is no overt gender bias in faculty hires. Gender

composition appears to be the result of low turnover of members within the Department. An issue raised by many is that there is almost no formal socialization of new members, other than students. New hires are left to themselves and are sometimes rebuffed in learning the system, because they are joining the ranks of many "old-timers."

As might be expected in the traditional academic environment, the strongest sub-culture was based on employee groups. The strongest sub-culture was composed of faculty, the next strongest was the graduate students, and the support staff had the least strength.

Faculty maintained the strongest relationship vertically within their office suites, horizontally with their peers in the Department, and externally to similar units at other universities.

The next strongest set of sub-cultures was determined by disciplinary groups and office suites. Identities in these groups were more external and driven by relationships with commodity-based groups across the State. Within each sub-culture, the faculty play dominant roles while the support staff are almost evenly matched with the graduate students. The least obtrusive, but still pervasive sub-cultures, are based upon the alignments within each of the three original root departments. This is true more for older faculty and support staff and for some graduate students.

Does the nature of the worksite culture or its sub-cultures influence the adoption of innovations?

It is this question that asks whether the academic culture affect the adoption of health promotion innovations. Decision making for health promotion activity proceeded at different levels than other activities in the Department. The Chair did not believe the

Department, as a whole, would be committed to health promotion on its own volition. Members did not believe that the Department could be committed without the Chair's leadership. Once it slipped away from being a Department agenda, it remained simply an innovation for individuals to consider as single decision making entities. Here the clerical staff had to rely on non-direction by Department administrators and the control of suite supervisors. Graduate students responded more in line with their research faculty groups.

The complexity and compatibility of the health promotion innovation affected its assimilation. Once the Department backed away from a commitment, there was an increase in the complexity of health promotion innovation to the individual. Decisions that could be broadly answered at the administrative level in the Department (e.g., release time, transfer of phone answering, support for attendance) became additional hurdles to the individual.

Compatibility was considered with respect to organizational views of health, the appropriate role of health promotion to the Department, the experience of employees working together, release time, exercising on work time, convenience, the Departmental research focus, and "who does it now" (i.e., role-modeling). Generally, the Department is committed to health promotion as an opportunity for employees–as long as the unit does not have to commit its financial resources. Phone answering was a control item the faculty used in not allowing clerical freedom away from the desk. Faculty had the personal freedom to exercise at the workplace because showers were available and they could adjust their schedules to accommodate the workload. The Department's substantive focus promoted a keen awareness among faculty and graduate students

regarding health risks. But that awareness did not seem to generally translate into personal health behavior modifications.

One can ask whether there is a need for culture change in order for health promotion to be assimilated into the Department. No strongly health-oriented sub-cultures were found, nor was the seven-day a week research activity viewed as out-of-line with the traditions of the primary culture. One surprising finding was "that the primary group of smokers in the Department for faculty, clerical, and graduate students, were closely aligned within the 'decision making' sub-culture identified earlier." Also, over-achievers (both faculty and clerical) were those most likely to be called upon to give more, with potential negative health implications.

Conclusions

This section focuses primarily on the results associated with the third research question. There are a number of key questions answered below that will further delineate what was the influence of culture--Department-wide or sub-groups--on the adoption of the worksite health promotion innovation.

Was worksite health promotion adopted by the Department?

There was no effective adoption of health promotion by the Department as a whole. The administrators were pleased with the health promotion activity as it was made available to the unit. There was even a positive note by most informants that making the activity available was a "good thing" for the Department to be doing. But there was no commitment on the Department's part for it to provide long-term

resources, leadership, make staff time available, or formally encourage member participation. In looking at the strength of the adoption, it was not pervasive across the Department or at any depth anywhere.

One major indicator was that, after the initial set of six-month health promotion programs were completed, they were again made available within the Department's building. Only six individuals ever expressed interest by attending either of two information sessions. The Department's early level of involvement stopped after the health fair. The health fair was a good thing to be doing for the employees. It appeared that after the initial efforts, the health promotion programs became intrusive.

The Department as a whole remains an innovative and national leader in many of its research activities and in maintaining close ties with its external clientele. But it appears to have less ability to change how it operates and lags behind in people-oriented innovations affecting its own faculty, staff, and students. Figure 7 (see the boxes marked by "X") is proposed as a matrix of the Department's innovativeness within its organizational systems aspects--discussed at the end of Chapter Two. This is not presented as an objective evaluation, nor is it thought to be much different than other academic departments where the worksite health promotion project has attempted to introduce change.

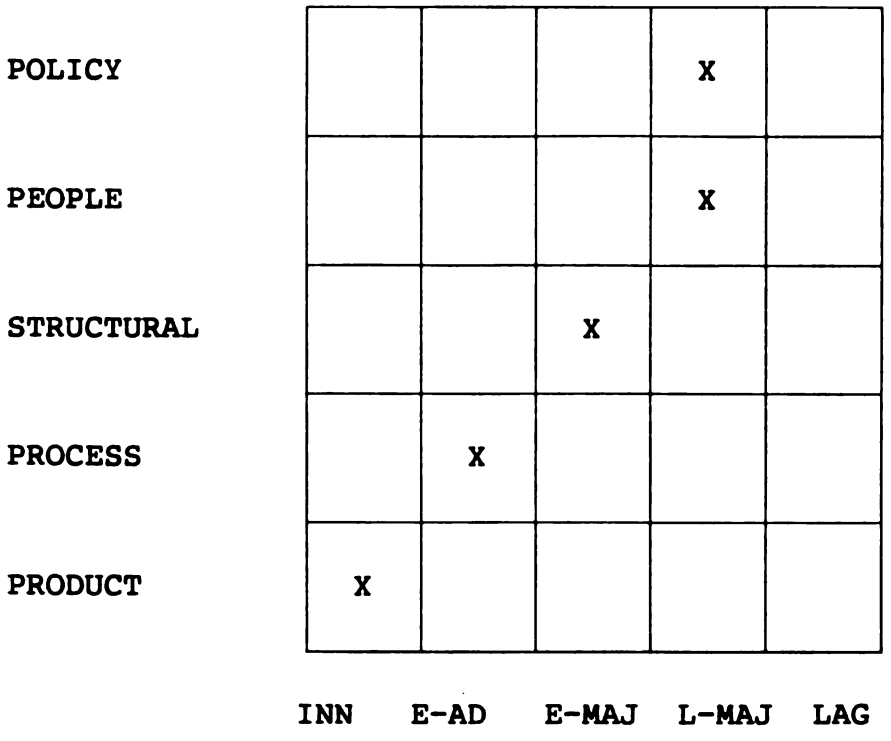


Figure 8: Matrix of the Department's Innovativeness According to Categories Used to Describe Innovativeness.

It is proposed that this Department, typical of other academic units at the University, will be more innovative in its professional orientations and research goals (e.g., the products and services of the organization, and its production-process orientations) and less innovative in those features directly applying to its human aspects (e.g., people innovations and the policy innovations to support them).

Was Worksite Health Promotion Adopted by Sub-groups of the Department?

The health promotion innovation was adopted by members in certain parts of the Department, but the far larger proportion of it did not adopt at all. It can not be

said that specific sub-groups as whole units became involved, but most all activity emanated from a limited number of sub-groups.

To say that ten percent of the Department members participated in health promotion programs is not a significant amount, nor is that much different from participation found in other units at the University. Even when looking within specific groups (i.e., faculty, graduate students, and support staff) there are no specifics that stand out, except to say that the graduate students--as in so many activities of the Department--participated at the most marginal level.

It is when looking at specific office suites that one finds any pattern of improvement. There were two office suites in which a significant proportion of the faculty and staff participated in health promotion activities. It appeared that faculty role-modeling, change of behavior, and their encouragement of their students or clerical staff do make a difference. One of these faculty was a recognized opinion leader within his discipline and the Department. From another research laboratory, secondarily related to the Department's mission, came a small group of technical staff that participated. In two others, however, it was clear that a faculty's member non-ability to participate influenced the staff to not participate. And all of those who did participate were allied with the Alpha and Beta commodity-based groups.

An important conclusion to be drawn is that **opinion leaders do count**. Especially in cohesive units and small work groups, their role-modeling and encouragement can be a vehicle for initiating group change.

Was Worksite Health Promotion Adopted by Individuals?

Again, there was a disproportionate number of individuals who did not adopt health promotion. For those 10 percent who did join the programs, however, over 90 percent adhered and were able to meet their individual health program goals, whether exercising regularly or consistently losing weight.

Of the faculty member program participants (one-third), not two of them regularly worked together or shared office suites and only two of them were known to exercise together away from work. The small number of graduate students who participated were linked to the office suite with the faculty opinion leader. The support staff made up almost fully one-half of the participants, but just one-third of this group were clerical. The other two-thirds of the support staff were technical employees coming from three different research laboratories linked to the faculty.

More than any other group, faculty participated as individuals, while most of the others participated through the encouragement of faculty, peers, or other co-workers.

Why Was Worksite Health Promotion Generally Not Adopted?

First of all, we can ask what aspects of the Department's culture could have been a factor?

There seemed to be three major factors at play here: need, complexity, and compatibility.

- Due to the nature of how health promotion was introduced--as a demonstration project to the University and as a service to the Department--the worksite health promotion project was not fulfilling a recognized need on the part of the worksite. The Department's culture was strongly oriented to survival within the University as an

administrative unit and was buffeted by shifting demands of the commodity-based groups in the State. The culture was being threatened by lack of resources and also by a shifting student population far different to the gender and background experience of the faculty and past students. Thus, most were preoccupied with "survival" and worksite health promotion did not emerge with a high enough priority.

The complexity of the innovation remained a barrier to its adoption. More than putting the Department into a new role as a context and setting for health promotion activity, it asked for other changes on the Department's part. The Department's de-centralized structure was not conducive to adopting a unit-wide innovation. Plus, it was against standard procedure for administrators to formally encourage suite supervisors to support such an activity. Issues like employee work release time were decisions solely left up to office suite supervisors. At the same time, the clerical staff were not clamoring for that release time either.

Each introductory and information meeting became another hurdle of getting started. Besides the health fair, there were two unit-wide informational meetings, a battery of health habit questionnaires, and then there were two introductory meetings for each health program in order to allow new members to join. In addition, the exercise-fitness program required additional time away from work to be tested for fitness level.

Compatibility with cultural values appeared to have played an important part. This was a unit with a strong work orientation--often seven days a week and at odd hours of the day. For many of the members, if they were not able to do their health-related activity during the work day, they would not be able to do it at home, which would detract from being with their family.

The values of health promotion providers are assumedly pro health promotion, which does not necessarily agree with the Department's values. The value of independence of Department members fits with the American value toward health. Health is a personal and individual endeavor for decision making. People take as much pride in their independence to do wrong as to do right.

Second, we could ask what aspects of the sub-group cultures could have been at work in limiting the adoption of health promotion?

At the most broad level of sub-cultures, we could identify the sub-cultures of faculty, graduate student, and support staff. On the whole, the faculty were the group that was already doing something for their health. They enjoyed the greatest control and flexibility of their work schedule tasks. Control of time did not directly translate into being able to attend regularly schedule health program meetings. However, it did mean they could better fit exercise and health habits into an already crowded schedule. There was also known to be a small number of faculty members who did not join programs but were still conscious of their health and who exercised regularly.

A surprising element is that a number of these health conscious faculty that regularly exercised also continued to smoke on an irregular basis. This habit was augmented more by social occasions not readily open to many members. It was an open statement that on the one hand they could be health conscious, and on the other hand still smoke.

For graduate students, there was not a group consciousness evident in the Department. Other than classes, they did not regularly come together for social or academic reasons, except for research meetings within their disciplines. Their greatest identity was to mentoring research professors and to their research discipline. This

was the key to gaining their participation, because their academic careers as students were rather intense and structured.

Even though the support staff had the highest level of participation in the health promotion programs, they were the most ambiguous group. Some of the technical staff that worked in laboratories had more freedom to participate in regular programs. As discussed earlier, this segment of the support staff participated at a higher rate than the clerical staff.

It is the clerical staff, most tied to their desks and offices, that had the least flexibility in their work schedules. This may reflect greater stress levels and account for the higher levels of negative health behaviors observed among them. What was found was that almost half of the clerical staff were smokers and only a very small group were health conscious in their eating and exercise habits. When other informants discussed the smoking behaviors and when talking directly with the clerical staff, they appeared self-conscious and defensive about smoking. This may have inhibited their voluntary participation in health programs. Smoking was a negative health behavior that often caused friction with their peers in the Department.

In summary, there were few obvious clues that arose from this cultural overview. One hint or overtone that does come forth, though, is the Department's community-mindedness. Its openness draws outsiders into its fold, but the new members, unless they have a similar background, do not easily find there way around in the Department. There is a sense of insider-outsider that must bridged. This is also true with the introduction of innovations from the outside.

A Theoretical Concept to Emerge: Health Promotion as Outside Influence

It is from Merton (1957) that the terms "cosmopolitan" and "localite" were first used in reference to leaders in a community under study. The primary criterion he used to distinguish the two is their orientation to the community. The "localite" devotes his interest to his community and is almost exclusively preoccupied by local problem. In contrast, the "cosmopolite" has some limited interest in the local community, but he/she has more interest and exerts more influence to the larger environment outside the local community.

Gouldner (1957, 1958) applies the same concepts to organizational analysis. He comments on the tension between an organization's bureaucratic needs for expertise and its needs for loyalty. There appears to be a relationship between an organization's need for loyalty and the amount of threat or lack of confidence it feels. An organization that is confident and not faced with strong antagonists can shifts its resources and rewards to professional expertise and scientific knowledge.

"Cosmopolitans" (e.g., outsiders, resource acquirers) are the experts or professionals that may feel less loyalty or commitment to their organization, but instead are devoted to their professional career that transcends all organizational boundaries. In contrast, "localites" (e.g., bureaucrats and elders) are those more devoted to an organizational career.

These two types are first presented as rather dichotomous orientations. Glaser (1964) indicates, however, that in some situations the cosmopolitan and localite orientation can also be seen as two orientations within the same scientist--activation is determined by the worksite organizational structure.

In another vein, Rogers (1983) utilizes those terms with respect to the diffusion of innovations. The cosmopolitan is one who is the vanguard of the changing external environment (interactions), and links the organization to new ideas and innovations. It is the localite who preserves stability and maintenance.

To link these ideas, it may be hypothesized that, in a university setting, scientists (i.e., research faculty) will have an orientation most heavily weighted toward the cosmopolitan end. And, further, they will serve as innovators (primarily linking to the external professional environment) in only those professional and organizational aspects that enhance the profession.

From the other perspective, those individuals viewed more as localites (i.e., administrators, teachers, and clerical staff) will be on the same continuum but weighted at the end away from the professionals. They will serve less as innovators, rather focusing on maintaining those aspects that enhance the organization functions, with less concern about their professionals enhancement.

From this perspective, cosmopolitans and localites can be projected as two dimensions of the same Department member, each activated at the appropriate time and place as determined by the organizational culture. In the Department that was the subject of this study, some of the research-oriented and younger faculty and their graduate students will posit more characteristics of cosmopolitans, and the other faculty and administrators and clerical staff will exemplify the localites. Furthermore, those innovations that become part of the manifest mission (however defined) of the organization will be subsumed by individuals who are localites; only those innovations that are perceived and directed at maintaining the profession will be incorporated by cosmopolites.

In a study by Cornwall and Grimes (1987), it was found that the professional role orientation of faculty tended to vary by time and not be strictly tied to one's professional orientation. Younger and newer members were required to focus on gaining tenure and building their careers, while older and tenured faculty were freer to focus on the organizational maintenance aspects. But in some instances the members could aptly focus on both aspects.

As found in this study, the Department's culture most closely resembles a "rural culture." It exemplifies the strong role of work, family-orientations, independence, and togetherness in crises that are commonly associated with rural communities. This parallel would place it in the "localite" end of the continuum. The membership tends to be conservative and has a natural resistance to outside interventions that upset the balance of personal relationships worked out over time. It behooves some of the faculty, as cosmopolites in their professional roles, to bring in the innovations, such as health promotion, that will undergird the Department's people-oriented innovativeness.

The significance to health promotion is whether it is viewed as enhancing the research professional because a "healthy organizational environment" enhances the profession. If not, it will run the resistance of localites less concerned with outside innovations that draw away resources and detract the organizational stabilizing functions to ward off change.

Assumptions of the Researcher

Early into the study, this researcher developed some assumptions to review at the end. They originated from interactions and observations that arose from the study.

The Department's research and food production interests should make it health conscious and organizationally committed to health promotion. As a member of the exercise-fitness health program held in the Department, it was apparent to the researcher that faculty and graduate student members had training and experience in many areas being taught by the program staff leader. In fact, at times, there would be slight tensions as participants tried to "prove their knowledge" in certain areas. But, when two faculty members of the same group were interviewed, this knowledge did not carry over into applying the Department into a more forceful and committed unit. One, in fact, did not believe his freedom of schedule should apply to his secretary. In other instances, those that were regular exercisers or had lost weight understood their health changes would reduce their health risks but understood less about how the organization might benefit.

This is in contrast to another department from which one clerical staff had recently transferred. She indicated the norms of that unit were for everyone to be health conscious and healthy acting. This meant that she could use exercise equipment that was readily available at that worksite during break periods. One other clerical staff noted that, in sharp contrast to the co-workers in her previous department, some of the clerical staff here were much less supportive to her having stopped smoking and wanting to stay free of smoke-filled environments.

Physical features of the building are expected to impact employee health behaviors. Physical features that affect employee health are related to the sedentary nature of most positions: the physical distance between linked work functions and the features that encourage being physically active. Faculty and graduate students, by the very nature of their work tasks, are more physically active then clerical staff. Laboratory researchers and teachers were more prone to have very focused and localized activity that was housed in close proximity to their offices--not much distance for walking required. Applied researchers who were required to visit the research centers, were much more apt to walk longer distances and do some related physical work as part of the research effort. Extension personnel were almost always "on the go"--in an out of the building, but, also driving a lot. Clerical staff, on the other hand, were very sedentary and only left their offices for breaks, to get away for lunch, or to go the mail room in the center of the building.

Features that support or impede healthy physical activity are the availability of stairs and locker facilities. Because the building was built in the mid-1950s, buildings were designed with more stair access and less people-oriented elevators. Also, with only two floors above ground, there is little need for (or observed use of) the one small elevator at one end distant from the center of the building. Another major item found supportive of health interests was the lockers and showers as discussed earlier. Faculty and male graduate students regularly used them. Faculty who exercised during the noon hour often took more than a one hour period. A problem for females, though, was the lack of clean and comfortable shower facilities. As a result, two females did not believe they could adequately work-out, return from their activity areas across campus, and shower within the one hour noon.

Implications

This ethnographic study attempted to contribute to the understanding of university department worksites as multiple cultural settings, each with its own values and norms for behaviors. The implications derived from the study should provide relevance to a variety of stakeholders: researchers, university administrators, department worksites, and health promotion service providers.

One does have to look at culture as an important variable in the adoption of health promotion innovations. If an organizational culture is found to be all "localite", it may have problems in adopting complex innovations originating from the external environment. If a culture is found to be "cosmopolite", it might be easier to adopt innovations such as health promotion, particularly if it is thought to enhance the profession in any way. In this Department, the faculty were found to be split between localite and cosmopolite in orientation and behaviors.

The "localites" need consistent reinforcement from personal networks and administrative structures (especially at the departmental level), in order to acquire the new values and behaviors. Cosmopolites, on the other hand, may learn more about innovations but do not directly apply them all. For instance, one cosmopolite faculty member was found to believe that his being healthier would not improve his ability to do good research. He would have to receive compatible messages from professionals outside the Department in order to translate the value to himself.

Identifying the professional culture in a university setting is not new. Its implications for health promotion, however, are quite important. Various authors have used a variety of labels for this academic community: "academic tribes" (Adams, 1976);

"academic culture" (Bess, 1982, 1988); "collegial organization" (Millett, 1962); "political organization" (Baldridge, 1971); and "professional bureaucracy" (Mintzberg, 1979, 1983a,).

One way to describe a typical professional culture is to use the descripters of "occupational communities" defined by Van Maanen and Barley (1984, p. 295):

> a group of people who consider themselves to be engaged in the same sort of work; who identify (more or less positively) with their work; who share a set of values, norms, and perspectives that apply to, but extend beyond, work related matters; and whose social relationships meld the realms of work and leisure.

In that sense, the description fits the Department in this study, but most exclusively with the faculty employee group and next with the small support network sub-culture found close to the Chair.

Adams (1976), in his discussion of academic politics, alludes to the same ideas: 1) no one has the complete power to do anything; 2) the fundamental allegiance of the faculty member will be to the smallest unit to which he belongs; 3) eccentricity is not only tolerated, it is often a positive virtue; and 4) faculty demand the proper maintenance of the symbols of the institution and the vestiges of their power.

A major implication for health promotion as an institutional innovation is that the access point for intervention must be kept in mind. The Department members kept alluding to the Dean's office as a source of outside funds for continuing internal leadership for the health programs. Individually the members responded as though a couple of thousand dollars per academic quarter would be a great threat to its financial stability. Yet, it did not express the strong desire adopt health promotion; the will was missing.

The most direct and acknowledged access point in this Department appeared to be through the multiple office suites. This also represents the most resource taxing

for the health promotion provider to first find this out and then to implement action to meet and work closely with each one.

Another implication for the University is that clerical staff--as targets for health promotion--have the least personal flexibility or freedom to participate and, across the University, have the least amount of control over those decisions that affect their work and health. In some cases, Department clerical members are penalized because of gender. Those members often have to compensate doubly for their supportive role at home.

Furthermore, worksite organizations do not have an incentive to monitor the health status or medical care resource utilization of their members. Due to the University's highly bureaucratic structure outside the academic units, the benefits that may accrue to employers are dispersed throughout the University and not concentrated at the individual unit. Aside from improvements in absenteeism and productivity, any cost reduction in health and medical resource use accrues to the University personnel system. This is also true for the enhanced image in the community, and the sense of the "University's commitment to its employees," both somewhat lacking.

A direct policy implication for the University is that it might create internal budget shifts to each department that reflects the medical care usage and costs of each department's members. It might issue credits to each department that took a more active role in reducing health care costs by introducing health promotion programs and supporting healthy lifestyles for employees and families.

Limitations of the Research

While the **researcher's experience**, training, and ability to probe deeper and synthesize information is deemed crucial to qualitative research, they can also provide blinders. One criteria, among others, for selecting this particular department for study was the researcher's background similarity to that of many of the Department members. This could have provided filters for sensing some activity or behaviors that would otherwise appear out of the ordinary and cause for further probing. Plus, the researcher's role as change agent for health promotion may have provided role conflict to him and Department members. Thus, the author had to often ask himself–in what frame or perspective were they really responding?

It was expected that studying this broad-based Department would provide internal contrasts or comparison not found in others. For various reasons, the **information selection pool** may still have been too narrow. First of all, the informant population base was kept small in order to keep some limits to the study. Potential informants not studied were Department members housed or working elsewhere. There was little emphasis given to certain transitory populations, such as post-doctoral students and visiting faculty. The informant pool did not include members that recently left the Department and went elsewhere in the University, individuals who might have shown the "down side" of the unit. Also, knowledgeables in other academic units were not queried, nor were the college and University administrators.

Due to the **qualitative nature of the study**, each entry into the setting brought forth new insights. After the interviews are completed, along with the primary observations, it became rather arbitrary to say when one is "through" collecting data.

Additional observations, interviews, and analysis could have provided a richer and more complete understanding. At the same time, the organizational environment is continually changing, however slowly it may appear. Any intervention is a "snapshot" of a unit at one point in time.

This study was exploratory--in search of new meanings--that could lead to better understanding of the academic worksite. There was a certain imprecisenss to the research questions that needed further refinement. The original intent was to formulate grounded theory from the study and lay the groundwork for further research. Due to time and financial resource limitations, there was an early shift toward studying specific questions that would lead to a better understanding of the health promotion innovation as it was affected by the worksite's culture.

Recommendations for Further Research

The study leads into further research needed in at least three areas: 1) health promotion's relationship to the employer; 2) health promotion's relationship to the provider; and 3) the need for a comparative study.

This study was based on the definition of health promotion as an innovation to the organization--a goodness-of-fit with the organizational culture. A useful measure would be to develop a scale or measure of types of innovations that have been adopted within the past. This could serve to determine an organization's past experience with change and, particularly, experience with innovations of a similar type. A scale could be developed along one axis of "hardware" innovations--that serve a more professional function--on one end and "software" innovations--that are more

organizational/human service oriented--on the other. The other axis could be a measure of that innovation's perceived ability to readily solve a known problem versus, on the other end of the scale, its "preventive" nature.

Health promotion is an extension of the provider's value system that prizes health consciousness and the ability to do something about it. Development of a health value scale could be an important contribution. Rokeach (1979) and others developed value scales for a number of different items, including health, but none that are directly applicable to a worksite setting--just to the individual. A provider, then, needs to understand their own values toward health in comparison to their worksite target population.

Further research is needed in qualitative methodology (i.e., organization ethnography) to develop what elements of an organization should be studied under differing circumstances. How can field study be used in a worksite to first raise concepts, and then be followed with a questionnaire survey to measure the pervasiveness and strength of those items. University systems are problematic in that they are quite innovative in what they do, but not as much in how they do it. Power relationships between faculty and clerical staff do not change much. In fact, it may worsen as the faculty-staff ratio increases due to staff cutbacks from budget cuts and new office technology. Clerical staff are more in charge of the printing and less in control of document preparation. Faculty are more directly responsible for document generation and not just the content.

One useful methodology change for doing the study in another way would be to use the model developed by Ragin (1987). It provides for comparisons of internal cultural units embedded within larger cultural units, rather than strict comparisons with

equivalent external units. An example of this would have to been to compare this Department's culture to the college or University culture as a whole. And another more obvious comparison would have been to compare this academic unit's culture with other ones at which worksite health promotion was also introduced.

Final Observations

Once one works in the field for a number of years, the advent of health promotion and its introduction into worksites becomes, at least to the researcher, the obvious thing to do. It is all too easy to project one's biases and values for healthy living onto other people. At the same time, it must be remembered that people trying to make changes are going against the tide; against all the "hype" and advertising for products and behaviors we are all trying to "conquer."

From a personal standpoint, the researcher makes two recommendations. The first, for those members of the health professions who are concerned about "empowering" people for making healthy choices, "do not give up the fight." This means understanding the environment and cultural values of the employer and employee systems. Individuals only have so much control over their behaviors. The same is true for individual work environments; departments are embedded in the larger University cultural environment. At the same time, the University and its administrators are still part of the web of ever increasing cultural systems. One cannot relegate all responsibility for being healthy and productive on the individual.

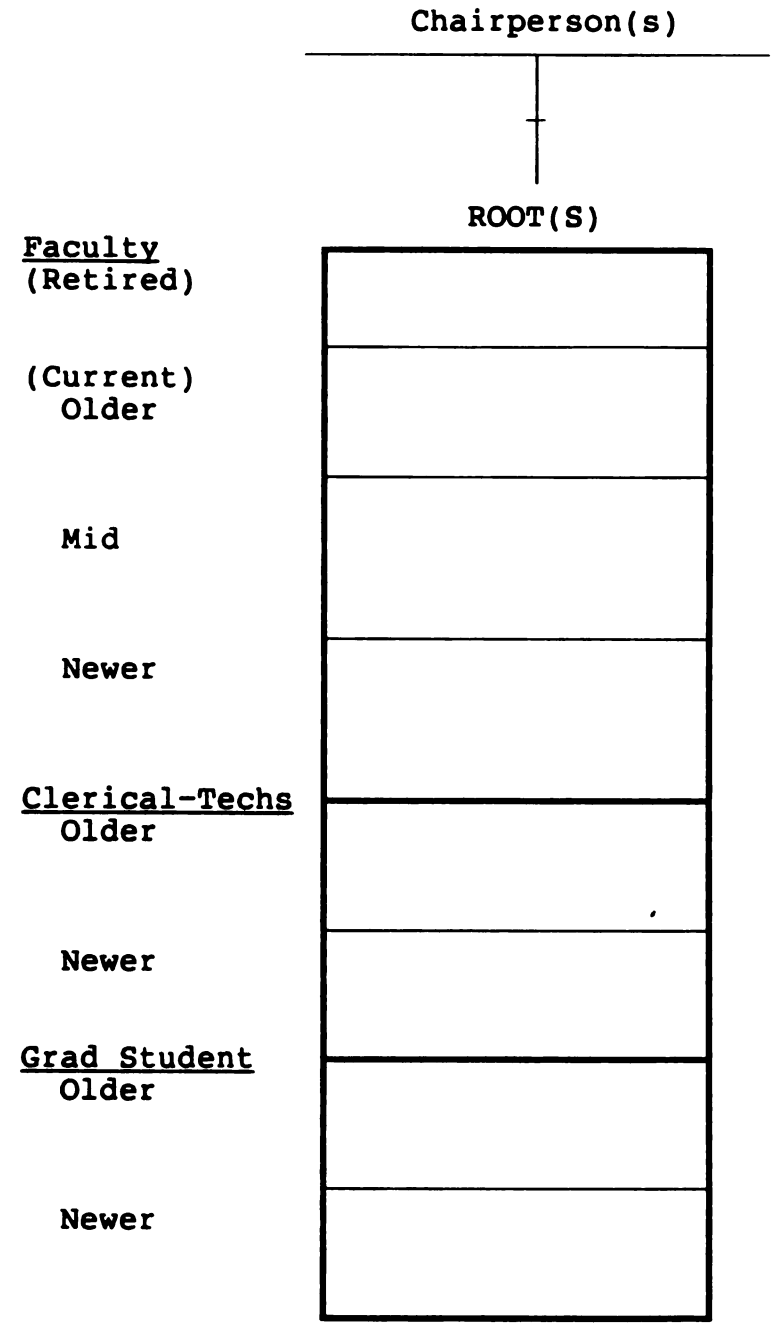
This brings me to the second recommendation. Worksite units, can enhance their effectiveness and support by developing their "organizational learning" for health.

Besides knowing what they can do to support individual efforts to become healthier, worksite managers should reassess the organization, itself,--its own mission, goals, rewards, and values that impedes or discourages healthy behaviors. A "healthy organization" builds on healthy employees; it does not build healthy employees in order to become effective. As Levine and Sorenson (1984) ask, why does our cultural system reward the "workaholic" that may overtax medical services and, instead, degrade the "health nut?"

APPENDICES

APPENDIX A

Interview Selection Matrix: Proposed



APPENDIX B

Schedule Of Interviews For Organizational Culture Formation

(The following questions serve as the framework for the structured interviews of the retired and older faculty to elicit formative information.)

Founders

Was there a significant person or persons who set the tone for the Departments at the university? In what way?

How did you first learn about that person? What about the Department at present do you identify or relate back to that person?

What kind of role did he/she/they play in the Department?
at the university?
outside the university?

Are there any critical incidents remembered as being associated with these individuals? What are they?

Mission

Why is there a (food technology) Department here at this university?

Did the Department have a special mission or purpose identified with the founder? What was that? Is it still important today?

What made the Department(s) unique in their day at the university?

Were the Department(s) modeled after any other department here or at another university?

How did the Department(s) fit into the university structure at their formation? Where were they physically located, and how long were they there?

APPENDIX C

Interview Schedule: FACULTY

When did you join this Dept, this U?

What are your primary activities here (e.g., faculty: research, extension, teaching)

Why did you join this Dept?
this University?

What is this Dept. most noted for? (e.g., specific innovations)

Who do you have most contact with in the Dept, for your primary work activity?
at the U? outside the U?

How do you learn what is important to know in this Dept?

What group or section in this Dept. do you most identify with?

What is considered prime space in this building? for Labs, & Offices?

What does it take to make tenure in this Dept?

How are communications given: formal channels, informal channels? (i.e., how do you find out what is going on?)

How did the department react when the C-Ts were on strike last fall?

What is a typical workday, workweek for yourself?
What is considered acceptable in this Dept?

Do you find this a supportive environment for health-related activity?

Is it acceptable to exercise during normal work hours?

Is health promotion an appropriate activity for this Dept.?
in what way?

Who, in this Dept., would have to be committed to this activity and pushing it in order for it to become an accepted and ongoing activity?
Who, or what group, would be most resistant? why?

APPENDIX C (continued)

Are there sections of this Dept. known to be "workaholics" more than others? Who are they?

Does your professional association promote health-related concerns?

What does this Dept. do that is supportive of individual health interests?
What does this Dept. do that is counterproductive of individual health interests?

Would this Dept., or section, be supportive to secretaries and technicians that want to join a program, even if held during normal work hours? Why/why not?

What kinds of issues does this Dept. easily rally around? (e.g., get most excited about?)

What kinds of issues cause most dissension or bickering?

If, at the next meeting (e.g., faculty, tech, staff, or grad) you indicated you thought health promotion should be better supported and that the Dept. should make a long-term commitment of resources to it, how would other people respond?

If you were to leave tomorrow, what significant event, since you have been in the Dept., will you most remember?

APPENDIX D

Interview Schedule: STAFF-TECH

When did you join this Dept?
this University? (where did you previously work?)

What are your primary activities here (who do you work for?)

Compared to other departments at this university, how is this Dept. noted for treating its staff?

Who do you have most contact with in the Dept?
at the U?

What group or section in this Dept. do you most identify with?

What are considered the crucial factors to being a successful staff-support person in your suite? in this Dept?

When a new person start work in this Dept., what kinds of things do they need to know in order to "learn the ropes"? How do they get the information?

How are communications given: formal channels, informal channels? (i.e., how do you find out what is going on?)

How did the department react when the C-Ts were on strike last fall? Why is that?

What is a typical workday, workweek for yourself?
What is considered acceptable in this Dept?

Do you find this a supportive environment for health-related activity?

In this Dept., is it acceptable to exercise during normal work hours?

Does your job allow the flexibility for you to be able to exercise during normal work hours? How is that?

Is health promotion an appropriate activity for this Dept?
in what way?

Who, in this Dept., would have to be committed to health promotion activity and pushing it in order for it to become an accepted and ongoing activity?
Who, or what group, would be most resistant? why?

APPENDIX D (continued)

What does this department do that is supportive of individual health interests?

What does this department do that is counterproductive of individual health interests?

Would this Dept., or your section, be supportive to secretaries and technicians that want to join a health program, even if held during normal work hours? Why/why not?

What kinds of issues does this Dept easily rally around? (e.g., most easily agree on?)

What kinds of issues cause most dissension or bickering, irrespective of their importance?

If, at the next meeting (e.g., faculty, tech, staff, or grad) you indicated you thought health promotion should be better supported and that the Dept. should make a long-term commitment of resources to it, how would other people respond?

If you were to leave tomorrow, what significant event, since you have been in the Dept., will you most remember?

APPENDIX E

Interview Schedule: GRADUATE STUDENT

When did you join this Dept, this U?

What are your primary activities here (research interests, T.A., etc.?)

Why did you join this Dept?
this University?

Who do you have most contact with in the Dept?

What group or section in this Dept. do you most identify with?

What are considered the crucial factors to being a successful graduate student in this Dept?

When a new graduate student starts in this Department, what kinds of things do they need to know in order to "learn the ropes?
How do they get the information?

How are communications given: formal channels, informal channels? (i.e., how do you find out what is going on?)

How did the department react when the C-Ts were on strike last fall?
Why is that?

Are the graduate students in the Dept. strong support for each other? In what way?

What is a typical workweek for yourself?
What is considered acceptable in this Dept?

Do you find this a supportive environment for health-related activity?

Is it acceptable to exercise during normal work hours? Does your work here allow the flexibility for you to able to exercise during normal work hours?

Is health promotion an appropriate activity for this Dept?
in what way?

Who, or what group, would be most resistant? why?

What does this department do that is supportive of individual health interests?

APPENDIX E (Continued)

What does this department do that is counterproductive of individual health interests?

Would this Dept., or your section, be supportive to secretaries and technicians that want to join a program, even if held during normal work hours? Why/why not?

What kinds of issues does this Dept easily rally around? (e.g., most easily agree on?)

What kinds of issues cause most dissension or bickering?

If, at the next meeting (e.g., faculty, tech, staff, or grad) you indicated you thought health promotion should be better supported and that the Dept. should make a long-term commitment of resources to it, how would other people respond?

If you were to leave tomorrow, what significant event, since you have been in the Dept., will you most remember?

APPENDIX F

Informed Consent Statement

STUDY EXPLANATION

The Study is focused on the background and "culture" of your department (i.e., the history, norms, and values) that affect the introduction of new programs such as health promotion. In an interview that may last one-half to one hour, you will be asked a series of questions to find out about your experiences and understanding of your work environment. A tape recording, if you agree, may be used as a secondary backup to note taking by the researcher.

INFORMED CONSENT FORM

1. I have freely consented to take part in a scientific study being conducted by (the researcher) under the supervision of (research supervisor) Department at (mid-western university)

2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed _____

Date _____

APPENDIX G

General Highlights of the Research Process

The purpose here is to describe how the intended methodology became operationalized in the specific field setting and differed from that outlined in Chapter Four.

Entry Negotiation

Gaining entry into the Department entailed a more step-wise process than originally expected. Initial contact was with the Department Chairperson at a scheduled meeting with the purpose of elicit approval to do the study. There was concurrence to the intent and purpose. However, the researcher was asked to come back and make a presentation to an advisory committee scheduled for a few days later. Again, the researcher was requested to come back and present the same outline to a full faculty meeting scheduled for the following month--to let them know that their participation was completely voluntary. Tacit approval was given for the research study at the faculty meeting as no opposition or major doubts were expressed.

Observer Role

The primary interaction level used by the researcher in this study was that of the observer as participant. In this, the researcher attempts to be immersed in the setting of the organizational culture (Schatzman & Strauss, 1973; Wax, 1983). And fortuitously for this study, the observer's activities were more or less publicly sponsored by the Department in the situation studied. It works well when the researcher wants or needs to combine the professional role with a sociable one. The researcher may achieve maximum freedom to gather information at the price of accepting constraints upon reporting (Patton, 1980). As experienced, this level of participation is very time consuming, and it was sometimes hard to adequately separate the researcher and member roles (Schatzman & Strauss, 1973).

As an example, this researcher became a full member of the exercise-fitness health program that was led by other health project staff in the Department. Also, there were other short-term task activities of a voluntary nature in which the researcher participated, e.g., over time, there was some carryover into other social activity outside the Department.

Data Collection

The purpose of observations in a variety of settings was to: 1) determine which settings individuals might question outsider presence (sanctity of the event), 2) determine what boundaries might surface with different occasions, and 3) determine what type events attract different people.

As portrayed in Figure 9, there were a variety of occasions used for observational data collection that varied on one axis as to the level of formality and, on the other axis, to the nature of its being routine. More formal and routinized

meetings were the first occasions for "setting in," such as monthly faculty meetings and weekly seminars (see examples in quadrant 1). In the first few occasions, permission to attend was requested--usually to the Department Chair. Other events such as weekly seminars were openly advertised within the Department and sometimes in campus-wide news bulletins.

	Non-routnine	Routine Scheduled: Anual, Monthly, Weekly, Daily
Formal (Work Related)	Interviews Youth Displays Chair Meetings Retirement Party Grad Orals 3	Faculty Meetings Seminars Open Houses Grad Orientation 1
Informal (Social) (Non-Work) (Peer)	Office Party 4 Bar Crowd Graduation Party Picnics Conversations	2 Graduate Informal Coffee/Lunch Production Display Xmas Party

Figure 9: Variety of Observational Situations

Quickly, as the researcher's presence and purpose became accepted, there were other observations in less formal and non-routinized settings. Figure 5.1 (quadrant 4) provides examples of these: graduate student graduation and celebrations, private office parties, Department picnics, and one-on-one conversations.

Interviewing: Final Informant Selection

In addition to the criteria outlined in Chapter Four for selecting informants, the other primary one was availability. A number of potential informants were on sabbaticals, vacations, or other extended professional leaves at random times. Also, in order to confine the scope of the study, interviews were not scheduled with Department members whose primary work location was outside the immediate building. Even then, the total number of interviews was increased to include recommendations

by knowledgeable from outside the Department and to follow-up on "leads." Appendix H is a matrix that outlines the breadth of the informants based on their orientation to the three original root departments and length of time in the Department--lending further to validity.

Therefore, 24 scheduled interviews were held over a period of just over two months. Primary emphasis was directed toward interviewing a range of faculty--presumed to be culture carriers, because they usually have the greatest longevity in any department. Clerical staff were next in priority because they are a primary target group for health promotion services. And graduate students were interviewed less frequently because their average tenure was the least in the Department.

Data Analysis

The key to checking validity, besides multiple sources of confirming data, was the group interview. Three faculty informants were brought together on the basis of their depth of interview response, interest in the research, and ability to speak openly in other's presence. They made a point of acknowledging that "if the wrong people were selected, inappropriate information might leak back to the Chair's office."

The main purpose of this session was for the researcher to present his quick synopsis of the Department situation and propose a few themes that rose out of the analysis. The outcome was that they confirmed the researcher's perceptions and brought other issues into clarity. As Whyte (1984) says typically happens when informants are interviewed again after the initial session, these individuals strove to ensure the researcher did not draw spurious conclusions. The initial interview tends to vent steam, but the following sessions bring the real opinions into focus.

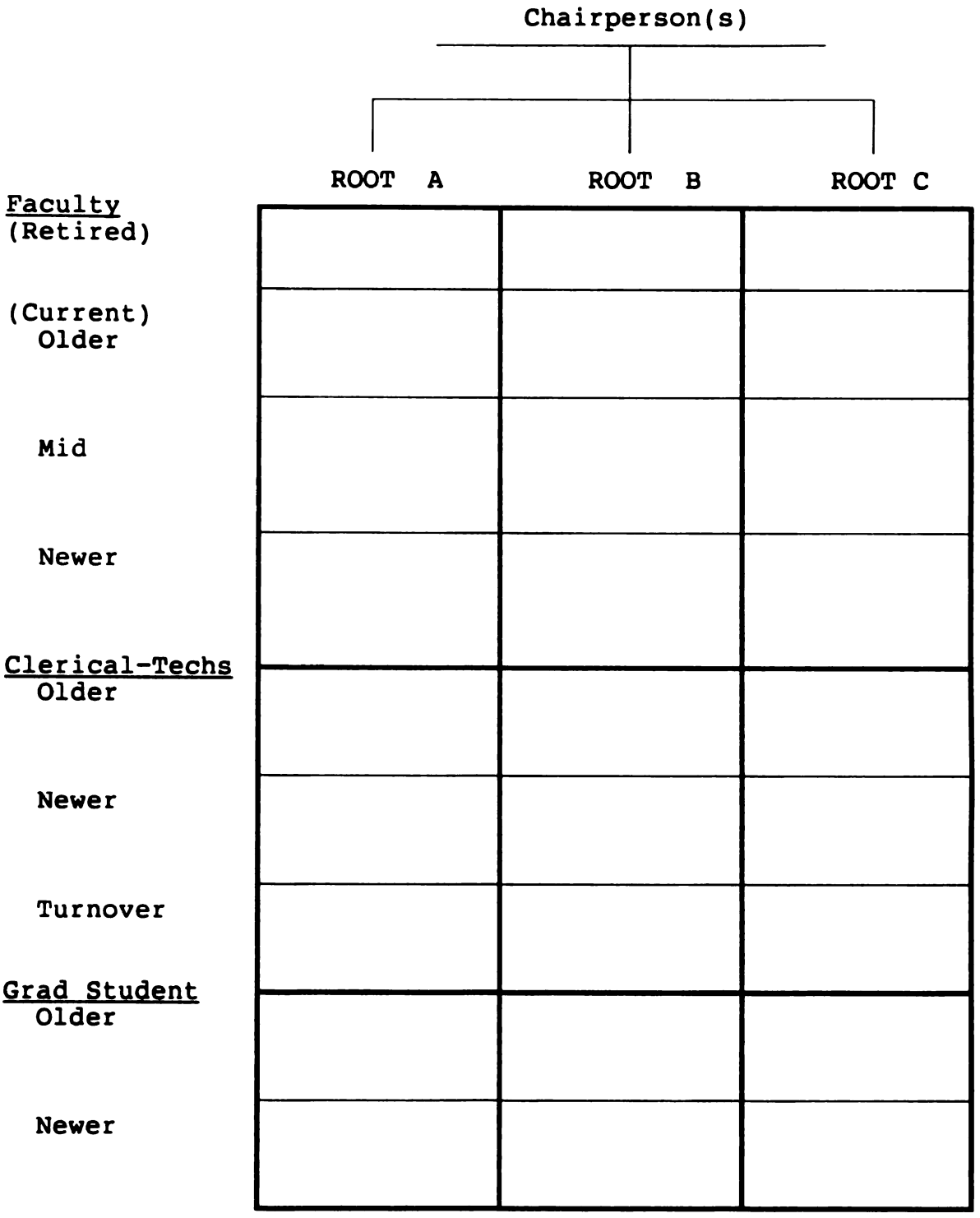
One other faculty member, who had not been interviewed, agreed to attend as a neutral participant. However, he was called away from the Department unexpectedly. Other individuals--graduate students, clerical and technical staff, and faculty--were frequently asked confirming questions in other casual conversations throughout the analysis and writing process.

Exiting the organization

The researcher met with the Chair when the findings were being written to explain that the research was drawing to a close. The Chair expressed interest in having the findings presented to the Department at a seminar. The researcher again restated that the research was not to critique or evaluate the Department, per se, but was designed to understand it as an example of university departments faced with unique innovations. Being asked to present findings is indicative of the trust level obtained by the researcher as participant observer. In this case, exiting the research phase did not mean terminating the relationship, but clarifying the change in roles back to the consultant for health promotion activity.

APPENDIX H

Interview Selection Matrix



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