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A CASE STUDY: EXAMINING AN ACADEMIC ADVISING SYSTEM AT A LARGE
INSTITUTION USING SYSTEMS THEORY CONSTRUCTS

A Thesis in

Instructional Systems

by

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ABSTRACT

This case study examines the academic advising system at a large research university in the eastern United States using systems theory constructs as its foundation. For one academic year, the researcher studied the primary advising unit at Eastern State University* and all of the related units within the university that worked together with academic advisors to conduct programming for undergraduate students. The purpose of the research was to describe the interrelationships between various student service providers. Systemic change was also examined as major changes were made in the academic advising system at ESU during the study. A detailed and rich description of the advising system is included in this paper as well as a discussion of the change efforts that were observed.

*pseudonyms used to protect the sponsor institution.

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A Case Study: Examining an Academic Advising System at a Large Institution Using Systems Theory Constructs

Chapter 1

Introduction

Thousands of faculty, professional advisors, administrators, and peer advisors conduct academic advising activities throughout our American system of higher education (Borgard, 1981). According to Grites (1979), academic advising is defined as a “decision making process during which students realize their maximum educational potential through communications and information exchange with an advisor.” In the first journal published by the National Academic Advising Association (NACADA) in 1981, Borgard reports advisors are continually changing and improving the advising delivery system with new procedures. These changes are influenced by external forces such as budgets, personnel changes, and the support or lack of support for advising from academic officers. Borgard further suggests changes are made without thought to what should be accomplished by academic advising, or without adequate resources to examine the quality of advising efforts.

More than twenty years after these profound words were written, the advising community continues to struggle to understand the phenomenon called academic advising, confounding questions about how to embrace the internal and external changes constantly occurring in higher education that influence advising systems. In an effort to gain a better understanding of academic advising, this case study was developed to explore the functions and processes of an advising system at a large research university and how that system is interrelated with other systems at the institution. Understanding how an advising system is connected to other systems within the university allows us to understand how changes in policies and procedures to any of these

systems ultimately affect academic advising.

This chapter provides the reader with background information about the case to be studied. The statement of the problem to be investigated and the significance of the study follow the background information.

Background

Eastern State University (ESU) was chosen as the site for this case study. It is a land grant, public research university with the main campus located in northeastern United States. The student enrollment for fall 2002 totaled 23,492. ESU is composed of thirteen colleges and schools and offers 170 bachelors, masters, doctoral and professional degree programs. There are four regional campuses and divisions located throughout the state. Distance and extension education are also part of the University's mission. This site was chosen for two main reasons: 1) it is a large, public institution, it should provide the opportunity to study a more complex institution organizationally than would a smaller, private school; and 2) I am familiar with the advising system at another large, public institution, this site will provide me opportunities to compare and contrast with my own experiences and knowledge.

Faculty, staff and graduate students provide academic advising services at ESU. Each college, school, or department has its own advising structure, primarily for students after they select their particular major. The Undergraduate Academic Services Center (UASC) provides most first-year students with advising services. Most pre-major and undecided students and a few special populations including non-degree, visiting, and ACCESS (high school) students receive their advising through the center as well. The UASC is staffed by thirty-seven full- and part-time advisors serving approximately 7,000 students annually. Students are assigned to specific advisors in the UASC and are served primarily through individual appointments to plan their

courses of study, select majors, register for classes, adjust schedules, and ask questions pertaining to their academic programs. Advising in other colleges and departments is primarily accomplished by faculty advisors who meet individually with students after they have chosen a major.

This study comes at an opportune moment for the ESU advising program. Several years ago, the Undergraduate Advising Implementation Team was established and they have identified several issues related to academic advising that must be addressed at ESU. The Academic Advising Task Force recently drafted a strategic plan for academic advising and set goals for changing and improving its services based on guiding principles established by the team. The academic advising “Guiding Principles and Objectives” established include:

1. Academic advising information is provided in an accurate, current, consistent, and timely manner. Advisors are aware of the different resources available to students and prepared to refer students to them.
2. Because the advisor-advisee relationship is an important one, the number of advisors any given student will have while at ESU is minimized. Good academic advising occurs in a comfortable, friendly, confidential, private, and mutually respectful environment to nurture that relationship.
3. Students and parents see advisors as student-centered, approachable, responsive, responsible, and knowledgeable. Good advisors are knowledgeable about and sensitive to different populations of students and their needs.
4. The University values academic advising and recognizes the important contributions of both professional and faculty advisors and support staff.
5. Advisors are aware of current practices in the field of advising and the technology used to maximize successful advising.

In addition to these guiding principles, the strategic plan includes the ESU Academic Advising Mission Statement: “To promote student success by ensuring that academic advising is delivered in an efficient, effective manner.” The strategic plan proposes that all departments,

colleges, schools and other units associated with academic advising undertake assessment strategies for their advising initiatives based on the five guiding principles. The plan also calls for support and resources for implementing changes in academic advising initiatives of all units at ESU once the implementation plan has been fully developed.

Significance of the Study

The intent of this study is to provide the reader with a rich description of the academic advising system at ESU and how it relates to other systems within the University. The primary question to be answered is “What processes, procedures, and services constitute academic advising at Eastern State University and how do they relate to other essential academic processes, procedures, and services there?” To date, the majority of research conducted on academic advising is quantitative in nature, so very few descriptive case studies have even been reported. In a report of advising literature published by McLaughlin and Starr (1982), it was found that the majority of advising research employs survey methods. They conclude that surveys of student opinion dominate the advising research and that studies which correlate advising programs to student outcomes are scarce. They also assert that the literature does not provide a consensus on the “nature of the relationship between academic advising and career planning and the roles of faculty members, counselors, and other student personnel professionals.”

McGillin (1994) offers some explanation for the lack of qualitative studies in the field of advising. She describes the research in advising as “rarely borrowing more than one or two methodologies.” The advising field’s past reliance on survey data has postponed the introduction of qualitative analysis, which McGillin claims is the “missing link” in theory building for

advising. McGillin also criticizes past advising research for failing to evaluate advising processes. In a 1997 stratified sample of the National Academic Advising Association (NACADA) membership, one of the critical issues identified for the field of advising was organizational structure, the main topic being addressed through my research. McGillin offers six suggestions for improving research in advising and ultimately for improving the field itself:

1. A theory of academic advising must be generated to clarify what advising is and is not. Advising must also be examined within the larger issues facing higher education.
2. Observational and reflective studies of advising must be conducted in order to better understand what it is that advisors do.
3. The role that advising plays in retention must be examined and documented again.
4. Research must examine how professional advisors differ from faculty advisors.
5. Researchers must take the lead in forming collaborations with those involved in debate on faculty roles and rewards, teaching innovation, faculty-student relationships, and the creation of learning communities.
6. Advising scholars need to form alliances with researchers in the disciplines to determine how and where advising impacts their fields. (p. 374-75)

Tukey (1996) argues that a systems approach to advising provides the rationale for “holding . . . broad, fundamental discussions; for coordinating unit activities; for improving staff functions; and for integrating advising into the central mission and goals of the institution.” He further recommends the following strategies for improving and understanding academic advising.

1. We must broaden our view beyond advising and keep the institutional ecology in mind;
2. To improve advising, we must collaborate with faculty and staff throughout the institution;
3. The advising system as a whole crosses unit boundaries and has diverse influences;
4. We must understand the entire context of academic experiences and decisions;

5. We must understand more about different parts of the system so that we are better able to work within it. (p. 12)

Based on Tukey's call for a systemic approach to academic advising and McGillin's recommendation that more qualitative data on advising be gathered, this study offers the reader an opportunity to gain a better understanding of the processes and procedures implemented in an advising system. It also offers a clear view of how that system interacts with other systems in the institution by using multiple qualitative research methods and examining the question through systems lenses. This study will be of interest to professional and faculty advisors, advising administrators, and advising scholars interested in understanding what advisors do. The perceptions of the participants may serve to confirm or challenge the reader's beliefs about academic advising. Professionals interested in advising evaluation initiatives may benefit from a better understanding of how a systemic view helps them look at their own advising systems more holistically. Because the system of interest (the advising system at ESU) underwent substantive change in the course of this study, we anticipate a description of this system will also offer the reader an opportunity to examine change within a system and how change manifests itself throughout a complex set of systems.

There is also support for using systems theory constructs in the design and study of social structures based on a philosophical foundation of systems theory itself. Banathy (1996) argues designing human systems meeting the needs of their constituents is dependent on the consideration of the entire system. He believes our professions call us all to design systems this way as a commitment to our fellow man. He summarizes the higher purpose of systems inquiry for all disciplines in the following manner:

We design systems that value and serve people. We design systems that build and nurture human qualities. We believe that it is our destiny -- and it is within our

power -- to guide our evolution and the evolution of our systems and to shape our individual and collective future by design. Therefore, we should embrace systems design as an essential part of our professional repertoire. We can attain this by developing organizational capacity and individual and collective capability in systems design.

Summary

The advising system at Eastern State University provides an opportunity to study a large, complex institution's policies, procedures and methodologies for effectively working with the undergraduate student's needs for academic advice and information. This case study describes, from multiple perspectives, what both professional and faculty advisors do in their roles as academic advisors and how these processes impact other related processes at the University.

Chapter 2

Literature Review

Overview

The purpose of this study is to describe, from multiple perspectives, an academic advising system and its relationships to other systems within a large, public research institution. To provide a context for this study, I present an overview of academic advising literature as it relates to the definition of advising and how advising is implemented. This chapter then examines systems theory and systemic change. Because systems theory has its own research traditions, I am providing next a summary of soft systems research or systems inquiry for human systems. Finally, this chapter considers the literature on the nature and purposes of qualitative research and, more specifically, case studies and the methodologies used to conduct case studies.

Academic Advising

The profession of academic advising is relatively young, tracing its origins to the late 1970's and early 1980's. The National Academic Advising Association (NACADA) was formed in 1977 and the first NACADA Journal was published in 1981 and dedicated to promoting research and theory development for academic advising. Early advising scholars attempted to define and explain the philosophies of academic advising. O'Banion (1972) offers one of the earliest developmental models for advising. He proposed a five-step model that is recognized as the point of origin for discussion of developmental models. Prior to O'Banion's advising model, academic advising was viewed as primarily prescriptive in nature (Crookston, 1981). O'Banion described the role of the advisor as more than an authoritative form signer but as someone who guides the student along a decision-making path that begins with a discussion of life goals and ends with course selection rather than the other way around.

Crookston (1972) examined the characteristics of prescriptive advising versus developmental advising. He described prescriptive advising as being similar to a doctor-patient relationship. The student, or patient, comes to the advisor, or doctor, for help with some problem or ailment. The expert advisor gives the student the advice that solves the problem. The advisor has the authority and the only responsibility of the student is to follow through with the prescribed advice. Developmental advising places the emphasis and responsibility on the student and the student's needs. The student and advisor explore the issues and decisions together and become partners in the journey of discovery and learning.

Hazelton (1981) offered a "performance appraisal" model of advising that shows the importance of academic advising to the mission of higher education. Rather than focusing on the "where and who" of academic advising, his model focuses on the content and process of advisement and offers support for examining an advising model from a systems view. He describes the model in this way:

The (performance appraisal) model would have advisement viewed in relation to the total university as an organization that produces educated people. The student, then, is responsible for his or her own education. Within the organization, the academic advisor performs a supervisory function, attempting to maximize the educational experience of the student. As supervisor, the advisor manages the flow of topics in a strategic communication style. (p. 217)

Trombley (1981) described academic advising as "the provision of educationally-related information and guidance to students confronted with choices and alternative paths in their education." (p. 2) She further suggested that there are three obstacles to good advising. The first problem to implementing a strong advising program relates to the low status academic advising

holds in higher education. Most institutions utilize faculty advising systems where faculty receive no rewards or benefits for their advising efforts. Administrators have not identified high-level leadership to promote academic advising. The next obstacle she identifies is the lack of coordination of the various offices involved in advising activities. In order to successfully coordinate advising activities on any campus, many staff must be included such as faculty, counselors, administrators, student affairs personnel, and even clerical staff. The third problem in improving academic advising on campus is the lack of training for faculty advisors.

Dunham (1981) defines what academic advisors actually do. She offers the following as a working definition:

Academic advisors should be impartial but enthusiastic in their commitment to make available to advisees the maximum amount of accurate and relevant factual information (both written and oral) bearing on academic matters, on the basis of which accurate and relevant factual information students should be encouraged to make rational academic decisions and accept full responsibility for them. (p. 9)

Though her proposition does include aspects of what academic advisors may do, it does nothing to address the “how to do it” part of the job.

When formulating a definition of academic advising, Lowry and Grites (1982) included a broader scope of concepts and activities encompassing the advising relationship. They described an advising system as one “designed to provide the basic framework for developing a study plan consistent with the student’s abilities, interests, and objectives and for periodic reviewing and adjusting as necessary.” (p. 76)

Potter and Shane (1978) proposed a system for classifying academic advising based on the content of the advising contact. Informational advising is defined as being focused on data, not the student, in order to inform the student. Explanatory advising seeks to clarify and explain the institution, its expectations, rules and procedures. Analytic advising focuses on analysis and synthesis of options and elements in a student's educational plans. The last category of advising content is therapeutic advising and deals with values, commitments, and emotional preferences of the student. This study is relevant to the proposed research because it identifies what is going on in the advising interview and thus informs the observational protocol of my study.

Another study done by Daller, Creamer, and Creamer (1997) identified advising styles through observations of the advising interview. Their research suggested advisors have their own preferred styles of advising that they utilize in all advising contacts regardless of what the students' advising needs are. Three advising styles were identified, "counselor", "scheduler", and "teacher", and were defined and discussed during interviews of the advisor participants after the observations were conducted. "Counselors" want to make students feel comfortable and focus on personal development and interpersonal relationships. Their basic philosophy about academic success is that the student is responsible for his/her own success. The "scheduler" is knowledgeable about university policies, processes, and other resources on campus and strives to help the student navigate through the university. The main objective of the "teacher"-type advisor enables students to become self-sufficient through education and instruction by addressing both personal and academic issues with the student. This research may help me to find categories of advising styles when summarizing the observation data.

Habley and McCauley (1987) describe seven organizational types of advising systems. Their organizational models are characterized according to advising delivery methods. The seven

models are faculty-only; supplementary advising; split advising; dual advising; total intake; satellite; and self-contained. Tukey argues, however, these organizational models, though useful for discussing advising effectiveness and the costs of advising services, do not describe the functions of an advising system. He recommends a systems view focused on the processes and functional relationships that influence “students, advisors, departments, advising units, and administrators.” (p. 6)

One of Habley’s organizational types of advising systems is a faculty-only system. A study conducted by Kramer, Arrington and Chynoweth (1985) examined the perceptions of students, faculty, and administrators of the role and success of academic advising centers and faculty advisors. They make a comparison of the perceived role and performance of two types of advising delivery methods: the advising center and faculty advising. A Likert scale advising survey was distributed to a random sample of undergraduate students, and to all faculty, advising center personnel, and administrators at Brigham Young University. Results showed there is a place in the institution for both types of academic advising. Students look to the advising centers as places to get academic information and procedures while they look to the faculty as a resource for career and educational planning.

Backhus (1989) conducted a similar study at Emporia State University to determine whether or not the advising center as an advising delivery mechanism promoted retention in undergraduate, undecided students. Longitudinal retention data compared students entering Emporia State University from fall semester, 1984 through spring semester, 1988. During this time, student retention rates at Emporia State University increased by 8%. Because the Student Advising Center was established in 1984 and because other potential variables were eliminated,

this study provides evidence an advising center approach to delivering advising services can have a positive impact on retention.

Dillon and Fisher (2000) examined the perspectives of faculty advisors about their faculty-student advising interactions at a medium-sized midwestern university. This study consisted of a survey containing six questions pertaining to demographic information; eight Likert-type questions about advising and advising related issues; and eight open-ended questions on advising. The researchers conducted a follow-up focus group interview with a select group of survey respondents to clarify survey results. This research suggests faculty members do have ideas regarding advising practices that work and do not work and are very interested in improving advising. Faculty advisors suggested knowledge about advising practices and curricular requirements is essential to effective advising. They indicated that good communication skills, including listening skills, were necessary to be a good advisor. The study also found faculty advisors hold strong opinions about being recognized for good advising, the consequences of advising on promotion and tenure, and the effect of advising on their overall workload.

Frank (1988) conducted a survey that informs the issues surrounding change and development in an advising program. She hypothesized an academic advising program undergoes a predictable sequence of changes as the advising and administrative staff strive to improve it. The results of the survey confirmed Frank's hypothesis that advising programs evolve over time and progress through stages of development. She was able, based on these results, to refine her original change/development model to the following:

Stage 1: An increase in demand by students for advising services results in an increase in advising staff.

Stage 2: Advisors become aware of the needs of specific or special populations of students and develop new strategies for advising these populations.

Stage 3: College administrators begin to recognize the contribution of advising to retention and also desire to better coordinate advising efforts resulting in improved communication among advisors and collaboration between advising units.

Stage 4: Advisors and administrators recognize the need for professional development opportunities and advisor recognition, which results in better training and evaluation programs, as well as better advisor recognition efforts on campus.

In arguing for the role that academic advising plays in higher education, Wooldridge (1982) recommends the following.

By working with all sources of student information, including admissions offices, counseling centers, assessment centers, students, and instructors, advisors will strengthen their roles as members of campus-wide efforts to serve underprepared students better.

Wooldridge's statement resembles those made by proponents of a systems view of advising and his message is relevant for advisers of all college undergraduates, not just those who are underprepared. He is advocating for a union of all stakeholders in the advising process, and his recommendation supports the systems approach that was utilized for this study.

Systems Theory

Before one can study a system, one must have a basic understanding of systems thinking and the philosophy behind it. According to Hutchins (1996), there are some basic principles about how social systems operate that contribute to an understanding of systemic thinking. One such principle is the idea that systemic problems can never be solved with simple solutions.

Oftentimes, the solution to a systemic problem is counterintuitive. Researchers have shown time and again that humans are incapable of processing the effects of changes to a system over time and therefore we are "tricked" into thinking we understand something when in fact we have drawn false conclusions. It is often impossible to predict how a system will react to change. One

example of how a system can behave counterintuitively is President Lyndon Johnson's efforts to build affordable housing for low-income families in the 1960's. Simply building affordable housing did not take into consideration the other social interventions necessary to support the poor. Today's housing "projects" are simply slums and ghettos where no one wants to live.

Another basic principle of systemic thinking is that it relates not only to these huge social problems, but can also be applied to everyday problems. A new road built around a community to shorten travel time ultimately can affect the stability of local businesses or raise crime rates in that area. The tragedy at the World Trade Center on September 11, 2001 affected all of us individually in terms of behavior, economic hardship, and our feelings about safety and patriotism. Systemic thinking gives us insight into these kinds of daily problems and helps us find new solutions to deal with them.

Hutchins (1996) proposes that all problems can be solved systemically. Most problems are "messy", with no easy solution. Looking at the problem holistically helps us to understand its many causes and possible solutions before we begin to apply a solution. Reducing the problem to one symptom or possible solution causes us to disregard another symptom or solution that actually may be more plausible.

Hutchins (1996) describes ten basic concepts about systems that must be understood in order to accept the notion of systemic thinking. First, each system must be considered in its wholeness, not its parts. A plant is a system unto itself, although it has parts or components such as roots, leaves, and flowers. Even the components can be broken down into smaller parts such as stigmas, styles, and veins. To look at a plant systemically, one must consider how the parts function together. Capra (1982) agrees with Hutchins as he discusses how past scientific philosophies of physics and mechanical functions of our universe contributed to our current

worldview. He proposes famous scientists such as Descartes and Newton viewed our world as a large machine that could be explained and understood by mathematical and scientific calculations of its smallest parts. These reductionist philosophies caused our society to accept the worldview that everything can be understood by breaking it down into its functional parts. Capra argues:

The universe, then, is a unified whole that can to some extent be divided into separate parts, into objects made of molecules and atoms, themselves made of particles. But here, at the level of particles, the notion of separate parts breaks down. The subatomic particles--and therefore, ultimately, all parts of the universe--cannot be understood as isolated entities but must be defined through their interrelations. (p. 81)

Social systems such as families, businesses, congregations, and governments have components, but can only be understood when one examines how the system interacts as a whole (Hutchins). Using a university as an example, one could identify the components as faculty, staff, students, classrooms, technology, books, etc. Naming and describing these components does little to help us understand the concept "university." In order to understand a university, one must understand its functional structure. One would have to include admissions, registration, housing, advising, etc. to understand how the university functions. The loss of one of these functions could completely shut down the entire system.

Hutchins' second systemic concept is that there is interconnectedness among all systems within a system. In other words, most complex systems are made up of sub-systems. There is a hierarchy governing the way systems interact with one another. For example, a student is a system just like a single plant is a system. However, in order to understand the system at a

university known as “the student body”, one must not only examine the individual student as a system, but one must also consider the entire population of students as a system. Students enrolled in a particular course could be a sub-system of the larger system-of-interest. Students living together in a dormitory could be considered a sub-system of the entire system commonly known as residence life. Students in a particular major are a sub-system of students enrolled in a particular college or department, and so on. One must consider how all of the sub-systems function and interact with each other in order to understand the student system. We also must put boundaries on our examination of a given system by understanding and defining a system-of-interest, made up of subsystems and residing within a supra-system.

A third concept from Hutchins is a system is more than the sum of its parts, commonly known as synergy. A system’s identity emerges only as it is seen within the context of the systems that surround it. One can only understand how a system functions by looking at the next higher level in the hierarchy of systems. Using the university as an example, a department wanting to implement a new advising technique may gain nothing by sending an individual to receive training. The department’s ability to change the way it implements academic advising is based on its ability to introduce all advisors to the new technique. A department’s ability to advise is based on the entire group of advisors, not just the success or failure of one. By the same token, academic advising in a college or larger administrative unit will not change until one works to change advising in all of its sub-units.

A fourth systems concept is that it is not possible to assign a single purpose to a complex social system. We each view a system’s purpose with our own blinders. One student might think of advising’s purpose as helping the student complete the degree requirements in four years. Another student might see the advisor as mentor, guide, friend or instructor. Yet another student

might need advising to help him/her accomplish the goal of obtaining a specific career. A university might see advising as a retention tool while an advisor might see advising as a profession. One purpose for an entire system cannot be assigned. A system's identity, however, is tied to its ability to survive. The only purpose assigned to any system, therefore, is its desire to self-perpetuate or "live." This premise leads us to the understanding that a system tends to avoid change because it fears change as a threat to its survival. This explains why complex social systems are difficult and slow to change. Change occurs within a system when that system believes that the change will bring greater benefits than maintaining status quo would.

Hutchins' fifth assumption states a system cannot be understood until one understands the multiple functions of the system. Every living system takes in products and/or information, processes them or changes them so they are useful to that system, then releases some product back into its environment. Examples of functional subsystems within a living system are information gathering, decision-making, maintenance, planning and evaluation. Using an academic advising unit or system as an example, the functions of the system might include staff training and development, gathering information about the students being advised, analyzing the student information, interviewing or counseling the student, preparing written summaries of interactions with the student, staff support to manage the flow of student traffic in and out of an advising center, needs assessment and evaluation of advising practices, annual reports to administration about the advising services, and recommendations to students and other university personnel about future directions. All functions of a system must be studied in order to understand why the system behaves the way it does.

The sixth concept related to systemic thinking is that a system's structure determines how it functions. A system not functioning well may actually need to be changed at the structural

level. Academic advising systems can be organized in various ways, i.e. centralized or decentralized, student-centered or advisor-centered, and using faculty advisors or professional advisors as their advising foundation, just to name a few organizational models. Changing the basic structure of the system means not only changing the parts and their relationships to each other but also changing the functional nature of the structure as a whole. When one focuses on improving one aspect of the system, hiring more advisors, for example, the change could lead to the collapse of the entire system because all other aspects of the system were not improved or even considered in conjunction with the change.

The boundaries of any system-of-interest must be defined, and this is the seventh premise that Hutchins' presents. There are many types of boundaries functioning in living systems. Physical boundaries are obvious for a country or state, however psychological or economic boundaries are much more difficult to discern. The extent to which a system's boundaries change and accept new information or "matter" or energy describes the extent to which a system is open or closed. Most living systems are generally considered open: open to new ideas, open to new procedures, open to new human resources. When one understands the boundaries of a system and how open or closed the system is, it is easier to understand how the system functions and maintains itself. In an advising system, understanding the fine lines between "advising" and "counseling" is just one example of describing its boundaries. An advising system may be very open at one point, but close itself at another point due to budget cuts or legal restrictions related to confidentiality, for example. Thus, boundaries are permeable and dynamic over time as well as over differential systems.

Hutchins calls "self-regulation" his eighth systemic concept. Self-regulation is understanding how a system achieves its purpose(s). A system must carry out certain functions in

order to survive, functions such as adaptation and reproduction. Systems constantly reorganize into formal and informal groups. Task forces, committees, and evaluation teams represent some examples of how social systems may organize themselves to achieve a goal or purpose. The concept of reproduction is sometimes more difficult to grasp when looking at social systems. An advising unit, however, may offer training to faculty advisors or present workshops on particular advising processes demonstrating how an advising system “reproduces” itself.

The ninth concept proposed by Hutchins notes all systems must adapt to their environment if they are to survive. Learning is the mechanism by which a system alters its structure and adapts to an ever-changing environment. A system must learn from the environment in order to adjust to these changes. In any social system, the members must take in information, restructure the information to make sense to them, and then apply the information to formulate new behaviors and processes. In other words, the system must construct its own meaning from all data and information and plan or decide how to utilize these inputs to make changes or improvements to the system. Advising systems are constantly producing new information about student bodies, information delivery mechanisms, or human communication, and an understanding of how well they take this information and change their functions to incorporate new methodologies is essential to understanding an advising system. One example of how an advising system must learn from its environment is the recent development of easy access to electronic communication for everyone. The use of email as an advising tool has caused academic advisors to examine how it can be used to meet the advising needs of students while maintaining effectiveness and confidentiality.

The final systemic concept reveals systems are always changing. A system resisting change and trying to maintain equilibrium will ultimately meet with an untimely death. There is

no way to avoid change and simply choosing to ignore it will not make it go away. A system embracing change and seeking out ways to adapt to changes in the environment will thrive. There may be ranges or levels in the amount of change an organization is trying to manage. Small, incremental changes may be occurring all of the time, however, occasionally there are changes so monumental they nearly cause a system to fail or completely shut down. Some event may actually trigger the collapse of an entire system. It is important to study the mechanisms a system uses to cope with or adjust to changes occurring around and within it in order to understand that system.

Other authors contributed to the body of knowledge related to systems theory and provide similar thinking as Hutchins. Checkland (1981) defines human systems as a collection of structured sets of activities such as information processing, planning, performing and performance monitoring. Ackoff and Emery (1972) characterize human systems as social organizations in which the change occurs in one part can only be mediated by changes in the state as a whole. Argyris and Schon (1978) believe a social group becomes an organization when it devises procedures for individuals to make decisions on behalf of the collective. Since the fundamental character of the living thing is its organization, the customary investigation of the single parts and processes cannot provide a complete explanation of the vital phenomenon. This investigation gives us no information about the coordination of parts and processes. (Bertalanffy, 1934)

Miller (1978) contributes to the systems theory literature with his examination of “living systems.” He proposes “systems at all levels are open systems composed of subsystems which process inputs, throughputs, and outputs of various forms of matter, energy and information.” He also identifies seven hierarchical levels of complex structures carrying out living processes: cell,

organ, organism, group, organization, society and supranational system. (p. 1) Based on this thinking, it does make sense to include complex social/human systems in the systems theory literature. Family therapists study social organization from a systemic perspective for many years. Broderick's (1993) work in family systems supports the systemic definitions proposed by Hutchins. He describes family systems as open, ingoing, goal-seeking, self-regulating social systems that share the same features of any other living system. Broderick notes six characteristics shared by all open ongoing systems—by ferns, finches, and federations as much as by families. An open and ongoing system has the following characteristics:

1. By definition, open, ongoing systems are not static and may not be fully described in static or structural terms. Rather, the parts are dynamically related to one another and to the environment. The student of open, ongoing systems therefore focuses on processes and on the patterning of those processes over time.
2. It follows the qualities of an open, ongoing system emerge out of the interaction of its parts; that is, as Aristotle and many others since have noted, the whole is greater than the sum of its parts and has qualities that cannot be deduced from the combined characteristics of each part.
3. The quality defining a set of ongoing processes as a system is their organization into recurring, repetitive patterns that may be observed over time. From these observed regularities, we can deduce the rules that govern the system.
4. The rules governing systems complex enough to be open and ongoing are hierarchically structured. It seems to be inherent in the organization of complex sets of rules that they be hierarchically structured; that is, all rules are not equal in their breadth of application. Some are narrowly applicable to immediate inputs such as “open the door when someone knocks.” Others are more comprehensive, perhaps governing who should answer the door when several family members are present. In systems parlance, these are called “metarules”. Logically, beyond metarules are infinite series of meta-meta, meta-meta-meta, and so on rules at increasing levels of abstraction and breadth of application. Midlevel policies incorporate broad sectors of family concern, such as the style of child discipline considered appropriate at particular ages or whether changes in the family's situation warrants changes in the permeability of the family's boundaries. Finally, we will have occasion to discuss top-of-the-pyramid family paradigms that represent the core philosophy of the family enterprise and therefore shape the evolution over time, but they constitute family members' most enduring and most centrally held values and commitments.

5. If they are to survive as such, all ongoing systems must regulate relationships among members to ensure that they are bonded enough to maintain the system's integrity and yet sufficiently buffered to maintain each member's integrity.
6. If they are to remain open and ongoing, all such systems must regulate traffic across their borders so that they are able to access necessary resources from the environment while protecting themselves from threatening or unwelcome incursions from that same environment.

Campion (1985) recognizes the importance of working with families from a systemic viewpoint. He suggests knowledge of family systems theory is invaluable to the educational psychologist who works with families. This knowledge must include an understanding of the various factors creating and maintaining a family system. These stresses and strains on family relationships have a powerful influence on the young children at a very early age. He also proposes that two things tend to recur continually in family work and can be regarded as fundamental to an understanding of family systems and processes.

1. The family can be considered as a system, with the actions and attitudes of each member of the family affecting, and being affected by, other members of the family. These actions and attitudes have their roots in the past lives of family members, and in those of preceding generations.
2. In certain families, especially those where one or more members of the family suffer from disturbed behavior, there may be a tendency for family members to be forced into roles that they may not want to play. These roles are maintained in a system of interaction between family members and create the family's view of itself, its members, and of others outside the family system. The family's worldview is also maintained, then, by dysfunctional communication between family members.

Campion incorporates systemic thinking into his description of how the family counselor may be affected on the job by problems within a system. In the workplace, individuals may find themselves feeling incompetent or less valued and respected by others because of changes in the structure of the system. They may be overlooked in the promotion race or passed over by

younger people. They may become ill or burdened by domestic responsibilities. These and other factors place pressure on individuals. Ways in which the individual copes may place a strain on the system in which they work. The difficult or unreasonable behavior of one individual tends to set in motion difficult, unreasonable behavior in other members of the team. This description illustrates individuals within a system also affect the functioning of the whole system.

Banathy (1996) describes the basic characteristics of human social systems. He states all human social systems are open. Their internal and external relations and the process of regulation sustain them. They not only depend on their environment, but also actively contribute to it. While they are wholes, they are also parts of larger systems and their constituents may also belong to other systems. Human social systems must change to adapt to the environment. Change is a continuous process. Engineered systems cannot be other than what they are created to be. Human social systems, on the other hand, are manifested through the perceptions of human beings who are free to attribute meanings to what they perceive. There can never be a single account of a human activity system. These systems are structured sets of people who perform activities associated with processing information, making plans, performing and monitoring performance.

Purpose, process, interaction, integration, and emergence are markers for understanding systems. Human activity systems should be defined at three levels, according to Banathy. A system serves the purpose 1) of its collective entity; 2) of its members; and 3) of its environment to the larger system in which it is embedded. A human activity system:

- is an assembly of people and other resources organized into a whole in order to accomplish a purpose. The people in the system are affected by being in the system, and

by their participation in the system they affect the system. People in the system select and carry out activities that will enable them to attain a collectively identified purpose.

- maintains sets of relations among those who are in the system. The maintenance of these relations is of primary importance. The process by which these relationships are maintained is the system's regulation and the limits within which these rules can be sustained are the conditions of the systems stability over time.
- is open to and interacts with the environment; depends on it and contributes to it. The nature of its relationship with the environment is mutual interdependence. This interdependence imposes constraints and expectations on both the system and its environment responsively. The environment is expected to provide the resources and support that are required by the system.

Knowles (1997) discusses the emergence of a new systems viewpoint has developed out of chaos theory. He relates this new worldview to the old view that our world can be seen as a machine. For several hundred years, we have been striving to control our world by getting enough information to master and control our environment. We deplore chaos and turbulence and try to avoid it at all costs. Scientists such as Galileo and Newton have given us the foundation for tremendous progress and development. The Industrial Revolution, building on this scientific basis, has enabled us to put a rover onto Mars. It has also given us the capability to destroy our environment with unprecedented speed.

Knowles, like Capra, admits the machine metaphor enabled us to do a lot, but that it is losing its effectiveness. Our organizations are breaking down. The world is moving much faster; information is flowing through the Internet at the speed of light. Chaos and turbulence are everywhere despite our efforts to control them. Kelly (1994) discusses the notion that everything

in our universe was either born or made and the two realms are becoming more and more like each other. In other words, everything in our world was either born (the earth, planets, animals, humans, etc.) or made by man. Over the last decades, we have given the power to things we have made to be able to learn, adapt, heal themselves and even evolve. He predicts the world of the made will soon become like the world of the born and will, consequently, be out of our control.

The new view of the world emerging is that of a living system (Miller). Living systems are chaotic and driven by the environment. As the chaotic energy flows into and through the organization, design structures come into being. By using systemic philosophy to look at living systems, it is possible to see the patterns of order that lay under the apparent chaos and messiness. Knowles suggests the following items we can use in organizations to move them towards living systems:

Valuing diversity and having the principles to hold it	Interdependent behavior
Strong core values	A strong sense of self
Permeable boundaries	Abundance mentality
Partnership with nature	Flat, flexible structures
Cooperation	Servant leadership
Networks	Inclusiveness
Being more aware of and connected to the whole	Integrity
Entropy flows out through the work on our selves	Living in ambiguity
Feed back loops	Systems thinking
Control comes through our vision, mission, principles, standards and expectations	

Although Vanderstraeten (2002) does not specifically look at academic advising as a system, he does remark on the impact educational systems have on the career choices of students and how this also impacts society in general. His conclusions shed light on the understanding of how our structures in higher education affect our ability to help students make meaningful career choices. He concludes the structure of our current educational system puts constraints on our ability to help students find occupations based upon the individual's characteristics and goals.

Career planning relies heavily on schools and universities granting limited and specific degree programs and certificates. Careers appear as an almost automatic succession of sequences. Students pass from course to course, from year to year, from degree to degree. This generates pressure for the student to perform in accordance with the organization's rules and regulations. Vanderstraeten believes this illustrates the potential of systems theory. Systems theory should/could be used to explore and restructure the field of organized education. Though Vanderstraeten uses career choice as an example of how organized education systems fail to support the true meaning of higher education because of antiquated structures, it is nonetheless an example that relates closely to this research. Academic advisers and career counselors are the people who are guiding students through these decision making processes. Oftentimes, this guidance is restricted by the structure of the degree program and requirements. Therefore, in a study that examines the systemic nature of academic advising, it is important to be aware of the structures that already exist that limit an advising unit's ability to adequately advise all students according to the University's mission and the mission of higher education in general.

Soft Systems Methodology

When we have a basic understanding of systemic thinking, it is possible to explore the notion systems theory suggests appropriate research methodologies are more likely to utilize systemic thinking. Checkland (1990) suggests traditional systems engineering methodologies of inquiry had difficulty in achieving solutions to ill-structured problems because the questions 'What is the system?' and 'What are its objectives?' were not answered first. Human activity systems, therefore, have an emergent property in the form of their ability to pursue the purpose of the whole. They must also have structure and activities concerned with communication and

control so they can adapt and survive in a changing environment. Checkland also asserts the description of any purposeful human system must be from some declared perspective or worldview. The interpretation of the purpose of a human system is unique to a particular observer and multiple perspectives are always available. When discussing the role or purpose of a system being viewed from different perspectives, Checkland declares “officially a university may at core be concerned with teaching and research, but for would-be holiday makers and hard-pressed finance officers it may be appropriate to regard as relevant the view that it is a source of cheap and cheerful hotel accommodation.”

Checkland offers several basic principles of systems thinking needed to understand “Soft System Methodology” (SSM). Systems thinking takes seriously the idea of a whole entity may exhibit properties as a single whole. To do systems thinking is to set some constructed abstract wholes (often called ‘systems models’) against the perceived real world in order to learn about it. The purpose of doing this may range from engineering some part of the world perceived as a system, to seeking insight and illumination. Within systems thinking there are two complementary traditions. The ‘hard’ tradition takes the world to be systemic; the ‘soft’ tradition creates the process of enquiry as a system. SSM is a systemic process of enquiry that also happens to make use of systems models. SSM focuses on human activity systems. A human activity system is a set of activities so connected as to make a purposeful whole, constructed to meet the requirement of the core system image. In examining real-world situations characterized by purposeful action, there will never be only one relevant viewpoint. It is necessary to create several models of human activity systems and to debate and so learn their relevance to real life.

Drawing out a systems model helps to develop the questions to ask about systems. Answering these questions initiates discussion and debate, which may be conducted in any way

appropriate for the research situation. The discussion may be conducted with groups of people gathered in one place or in interviews with individuals spread over time. It is impossible to generalize to other similar systems based on information gathered from one particular system. Checkland believes that “representing relationships and connections with pictures and diagrams is better than linear prose.”

Checkland suggests the process of finding out what a system is about is just as critical as thinking through the solutions to a system’s particular problems. This “finding out” stage of the research continues throughout a study and is equal in importance to the logic-driven thinking. The researcher must accept that although facts and logic have a part to play in human affairs, the feel of them derives equally from the myths and meanings which human beings attribute to their interactions and relationships with fellow beings. If we are going to intervene in human affairs and grapple with their full complexity, we had better have available some ways of enquiring into the ‘systems’ of myths and meanings which constitute what we mean by ‘a culture’ (Schweder and LeVine, 1984). Further, Checkland identifies the interview classification scheme of practices, perceptions, problems and ideas as a particularly good way of finding out about structures, processes and the relation between the two.

In order to fully describe and understand a soft or “human” system, Checkland recommends three stages of analysis. In analysis one, the following “roles” are determined:

Client—person who caused the study to take place
 Problem solver—whichever wishes to do something about the situation
 Problem owner—stakeholders

In analysis two, the social systems are analyzed. Social systems are continually changing interactions between three elements: roles, norms and values.

Roles—players
 Norms—expected behaviors

Values—performance in a role

Analysis three attempts to identify the political structure of the system. Checkland believes all purposeful acts have a political dimension; therefore this analysis is concerned with answering the question “How is power expressed in the situation studied?”

Ashby (1968) gives us insight into the importance of not generalizing how well a particular system design works to other settings or time periods even for the system-of-interest. He states any dynamic system can be made to display a variety of arbitrary assigned ‘parts’, simply by a change in the observer’s viewpoint, therefore the inquiry is always subjective and never objective. Ashby refers to the idea of judging the quality of a system as illogical and unimportant. He states there is no such thing as a “good organization” in any absolute sense. An organization that is good in one context or under one criterion may be bad under another.

Banathy (1996) offers a different way of framing systems inquiry. He argues systems thinking and philosophy determines the inquiry methodology to be used. He suggests “systems philosophy” seeks to uncover the most general assumptions lying at the roots of any and all of systems inquiry. In general, philosophical aspects work in two directions. The first involves the inquiry into the “what”: what things are, what a person or a society is, and what kind of world we live in. These questions pertain to what is known as ontology. The second question is “how”: how do we know what we know, how do we know what kind of world we live in, how do we know what kind of persons we are? The exploration of these questions is the domain of epistemology. Banathy believes ontology and epistemology cannot be separated. Our beliefs about what the world is will determine how we see it and act within it. And, our ways of perceiving and acting will determine our beliefs about its nature.

The ontological task is the formation of a systems view of the world. This leads to a new orientation for scientific inquiry. Two great philosophical alternatives of the worldview exist today. One view defines the world consists of “things” while the other view defines the world consists of processes, and the things are only “stills” out of the moving picture. Systems philosophy developed as the main rival of the “thing view.” It recognizes the novel properties of systems emerging after an understanding of the organizing relationships between entities is realized.

Banathy concludes the most significant guiding principle of systems inquiry is giving prominence to synthesis; not only as the culminating activity of the inquiry following analysis, but as a point of departure. This approach to the “how do we know” contrasts with the epistemology of traditional science that is almost exclusively analytical.

The methodology of systemic inquiry is inherently different than traditional scientific inquiry. The scientific methodology of a discipline is clearly defined and must be strictly followed. Conversely, the specific situation, the context, the content, and the type of system under investigation determine methods and tools or approaches to systems inquiry. Banathy explains systems methodology has two domains of inquiry: 1) the study of methods by which we gather knowledge about systems in general; and 2) the identification and description of strategies, models, methods, and tools for the application of systems theory and thinking to working and complex systems. Systems methodology includes strategies and techniques designed to meet the following goals: 1) the analysis of systems and systems problems; 2) the design, development, and evaluation of complex systems; and 3) the management of systems and the management of change within complex systems. Those who use systems methodology must identify, characterize, and classify the nature of the problem situation or system; identify and

characterize the systems context and content; identify and characterize the type of system being studied; and select specific strategies, methods, and tools appropriate to the nature of the particular system being studied.

Romm (2002) argues a constructivist approach to systemic inquiry is necessary and even impossible to avoid. She proposes, as systemic thinkers, we should at least work with the awareness that our way of organizing inquiries and way of presenting 'results' might generate certain effects. Our accountability, then, can be defended if we are able to express an appreciation of, and sensitivity to, ongoing argumentation around ways of seeing and acting that might be brought to bear in our engagement in the world. We cannot build accountability by adhering to specific guidelines and procedures for inquiry that supposedly get us closer to the 'truth', but by striving to build a trusting relationship in our engagements with others. She suggests processes of knowing can be assessed through social discourse: assessments can be made in terms of the expectation people express a propensity to engage seriously with competing visions and concerns. We need to recognize the choices we are making as we create constructions so we can account for them in social discourse in order to earn others' trust.

Systemic Change

Understanding and describing a system helps us to understand where and when there are problems within the system and how the system might be improved. After one identifies a problem or finds room for improvement in a system, the next step then becomes one of applying systemic change methodology to solving problems. Although much of the literature focuses on systemic change as it relates to school reform, many concepts and suggestions for school reform can also be applied to other human social systems.

Jenlink (1998) believes that certain key concepts must be utilized in systems design to assure a successful systemic change. These principles include “the need to create an overall image and a blueprint for the ideal system; the continuous engagement of knowledgeable, committed, and participating stakeholders; the recognition that all parts of the system are connected and to treat them otherwise invites failure; the importance of careful planning for implementation; and the need for the system to commit resources for evaluation.”

The Educational Systemic Change Tools (<http://www.nsba.org/sbot/toolkit/edsctls.html>) Web site was developed as part of a National Science Foundation grant. This site includes information about what systemic change is as well as suggestions to change agents about how to design and support school reform. The authors define systemic change as “a cyclical process in which the impact of change on all parts of the whole and their relationships to one another are taken into consideration.” They further suggest systemic change requires we move beyond thinking about the individual stakeholder or an individual problem and think about systems such as policy, education, social service, information, and technology systems. Also included in any type of systemic change effort is the notion it must involve players from all related systems to develop a shared goal and then determine how change in one area affects change in other areas. This team approach to change results in a shared vision by all stakeholders and a design helping the system reach a shared vision. In their suggestions for school reform, the authors suggest change teams work with stakeholders throughout the system to:

- Create a vision of what you want the system to look like and accomplish.
- Take stock of the current situation.
- Identify strengths and weaknesses of the current system in light of the vision.
- Target several priority items for improvement.
- Establish a plan for addressing these priority items and for measuring success.
- Assess progress regularly and revise actions as needed.

- Take stock again and use feedback to revisit vision and begin cycle again when the action cycle is completed.

Banathy (1994) suggests the following principles as necessary to incorporate into the design of any change process if that change is to be successful:

1. Participation by all those who will inhabit the system, and who will be served and affected by it is a critical principle. This ensures people will be committed to the design and its implementation.
2. Commitment to idealized design means to create the most ideal and best possible design, which makes the effort of redesign worthwhile.
3. Design is learning, and individuals and organizations can all learn by engaging in design. We all learn to examine the design continuously and reexamine our collective values, perspectives, purposes, and modes of operation.
4. Design never ends. Necessary changes emerge over time, and therefore the ideal also changes.
5. Commitment of nurturing human quality is critical to successful design. The human being is the most valued part of the system, and helps us create systems that are just and better for everyone.

In order to understand how different it is to think of change systemically versus how it has been thought about in a more traditional sense, Banathy offers the following matrix to show the differences between an old way of thinking about change and a new way of thinking about change:

Old Mindset of Change	New Mindset of Change
<ul style="list-style-type: none"> • Working within existing system to fix parts and improve old system • Change is short term • Planning process that perpetuates • Views problem as within system • External change agent • Limited stakeholder involvement • Individual and team oriented • Autocratic leadership • Focus on improving programs 	<ul style="list-style-type: none"> • Working outside existing system to create new system • Change is continuous and lifelong • Designing process that creates • Views problem as entire system • Stakeholders as change agent(s) • High stakeholder involvement • Team and community oriented • Shared leadership • Focus on creating learning system

In order to put a systems view into practice, we must learn to think about advising as a system, understand and describe it as a system, and design it so it will display systemic behavior.

Once we look at our advising systems using a systems view, we can then become systemic in our efforts to create change and reform.

Qualitative Research

Now that I have presented some justification for the importance of systemic thinking, research and specific systemic research methodologies, it is appropriate to move to a broader discussion of the nature of qualitative research in general. This study is a case study and will utilize qualitative research methods which will be outlined in detail in Chapter 3. The literature presented here gives an overview of qualitative research methods that were incorporated into this study.

Creswell (1998) indicates qualitative research is an inquiry process of understanding utilizing distinct methodologies and traditions to explore social problems. The researcher must draw a detailed, holistic picture of the context, analyze the words and thoughts of informants, and conduct the study in a “natural setting.” He also states that the qualitative researcher must be willing to do the following:

- Commit to extensive time in the field;
- Engage in the complex, time-consuming process of data analysis and sorting through large amounts of data and reducing them to a few themes or categories;
- Write long passages, because the evidence must substantiate claims and the writer needs to show multiple perspectives; and
- Participate in a form of social and human science research that does not have firm guidelines or specific procedures and is evolving and changing constantly. (p. 16-17)

Creswell also discusses the underlying philosophical assumptions made about qualitative inquiry. He suggests knowledge only exists as the meanings people give to a phenomenon and knowledge can only be gained through people talking about their meanings. He also indicates this knowledge is always laced with personal biases and values and constantly evolves, emerges,

and is intricately tied to the context in which the study takes place. Creswell offers eight characteristics of good qualitative studies.

1. Rigorous data collection procedures are utilized. The researcher collects multiple forms of data, adequately summarizes the forms of data and detail about them, and spends adequate time in the field.
2. The study is framed within the assumptions and characteristics of the qualitative approach to research. Characteristics such as evolving design, the presentation of multiple realities, the researcher as an instrument of data collection, and a focus on participants' views must be included.
3. A tradition of inquiry is used and the researcher identifies, studies, and employs one or more of these traditions.
4. The project starts with a single idea or problem that the researcher seeks to understand, not a causal relationship of variables or a comparison of groups.
5. The study includes detailed methods, a rigorous approach to data collection, data analysis, and report writing. The researcher also must verify the accuracy of the account.
6. The writing is persuasive so that the reader experiences "being there."
7. Data are analyzed using multiple levels of abstraction. Study analyses are presented in "layers" from the particular to the general. The writing is clear, engaging, and full of unexpected ideas. The story becomes believable and realistic and the reader becomes engaged. (p. 20-22)

Creswell's recommendations for spending a great deal of time in the field, for collecting data from multiple sources, and for checking with participants for accuracy in the data summarization are all arguments presented by qualitative researchers for the validity of this type of research. Another important method for justifying the trustworthiness of the reporting is for the researcher to explain their own biases and beliefs affecting the story telling (Patton, 1990). Seidman (1991) recommends in-depth, lengthy, and multiple interviews to enhance the accomplishment of validity. A three-interview structure for each participant over a one to three week period accounts for particular days that the subject may not feel well and gives the researcher an opportunity to check for consistency in what the participant is saying. Also, by interviewing

multiple participants, the researcher connects the experiences and check the comments of one participant against those of others.

Merriam (1994) states this about qualitative research:

In contrast to quantitative research, which takes apart a phenomenon to examine component parts (which become the variables of the study), qualitative research can reveal how all the parts work together to form a whole. It is assumed that meaning is embedded in people's experiences and that this meaning is mediated through the investigator's own perceptions. (p. 6)

Merriam and Creswell both support the idea that qualitative research methods lend themselves naturally to a holistic study of a phenomenon that includes an examination of the processes and parts and how they work together to form the whole. My research, by nature of its purpose and questions, can best be supported and studied using qualitative methodologies.

Case Study Research

Case Studies Defined

Why conduct a case study for this particular research question? When examining the definition and purpose of case study research, it becomes obvious case studies lend themselves very well to systemic inquiry. Merriam (1998) defines a case study as “a thing, a single entity, a unit around which there are boundaries.” Other authors confirm Merriam's definition of case studies. Smith (1978) describes the case as a “bounded system” and Stake (1995) adds, “the case is an integrated system.” Miles and Huberman (1994) identify the case as “a phenomenon of some sort occurring in a bounded context.” All of these definitions of case studies ring familiar when one understands the concepts of systemic thinking.

Patton (1990) describes case studies in systemic terms as follows:

The tradition of ethnographic fieldwork has emphasized the importance of understanding whole cultural systems. The various subsystems of a society are seen as interdependent parts so that the economic system, the cultural system, the political system, the kinship system, and other specialized subsystems could only be understood in relation to each other. In reality, fieldwork and observations have tended to focus on a particular part of the society or culture because of specific investigator interests and the need to allocate the most time to those things that the researcher considers most important. Thus a particular study might present an overview of a particular culture but then go on to report in greatest detail about the religious system of that culture. (p. 215)

When Creswell describes the five traditions in qualitative inquiry, he concludes:

A case study is chosen to study a case with clear boundaries, such as the campus in this study. The researcher must have contextual material available to describe the setting for the case. Also, the researcher needs to have a wide array of information about the case to provide an in-depth picture of it. With these data, a picture is constructed of the incident and the local reaction to it through several themes. (p. 39)

These qualitative research experts would support my choice of using case study methodology to research and describe an advising system. The system is bounded by definition and purpose, it will be studied in its entirety, it will be examined for how it functions within the larger university system, and multiple perspectives and sources will be used to gather data.

Types of Case Studies

According to Merriam (1998), there are three major types of case studies: descriptive, interpretive and evaluative. A descriptive case study describes a case or phenomenon. An interpretive case study contains rich description, however, it is used to illustrate or challenge theoretical assumptions. Finally, an evaluative case study aims to describe and then judge the quality of something. My case study would be considered an interpretive study because its purpose is to describe a system using systems theory and terminology. This study will illustrate the usefulness of looking at an advising system through systems theory lenses. Stake (1994) would call this case study “instrumental” because it provides insight into an issue or refines a theory (system theory). Stake adds the case itself is of secondary importance. It is only there to facilitate an understanding of something else. “The choice of case is made because it is expected to advance our understanding of that other interest.” (p. 237) Creswell agrees with Stake and would call this an “instrumental case study” because it uses the case study to illustrate systems theory. In case studies, a theoretical framework may be imposed before the study begins or may be applied after the analysis of data is complete.

Merriam presents a case for theory “permeating the entire process of qualitative research.” She argues most qualitative research inherently modifies existing theory because the data are analyzed and interpreted using the concepts of a particular theory and that the findings almost always are discussed in relation to an existing theory. She states the purpose of the study is to demonstrate how it contributes to expanding a particular knowledge base or theoretical framework.

Case Study Methodology

Creswell discusses the methods for choosing a case study to examine. The ‘case’ must be bounded in time or place. The researcher must identify the case; consider whether to study a single case or multiple cases; establish a rationale for purposeful sampling strategies and for gathering information about the case; have enough information to present a rich, detailed picture of the case; and decide the “boundaries” of a case or how it might be constrained in terms of time, events, and processes.

Case studies use three primary methods for data collection: observations, interviews and document analysis (Merriam, 1998; Stake, 1994; Patton, 1990). According to Stake (1994) the most important methodology to use in qualitative case study work is the observation, and the observation must be reflective. The researcher must “tease out” the meanings of whatever is going on at the site. “Thus the methods for casework actually used are not to learn enough about the case to encapsulate complex meanings into a finite report but to describe the case in sufficient descriptive narrative so that readers can vicariously experience these happenings, and draw their own conclusions.” (p. 242) Creswell argues extensive material from multiple sources of information must be gathered to provide an in-depth picture of the case. The data collection must be extensive, utilizing multiple sources of information such as observations, interviews, documents, and audio-visual materials. Through this data collection, a detailed description of the case emerges, as does an analysis of themes or issues and an interpretation about the case by the researcher. The investigator narrates the study through techniques such as a chronological summary of major events followed by detailed examples of a few incidents. In the final analysis, the researcher reports the “lessons learned” from the case.

In case study research, the investigator may become a “participant” observer by being present in the program or case being observed over a period of time. According to Patton (1990), observational fieldwork in case study research has the following strengths:

1. Observation of program operations and activities allows the investigator to understand the context within which the program operates and understanding the context is essential to a holistic perspective.
2. Experiencing the program allows the researcher to be open, discovery oriented, and inductive in approach. Being on-site means the observer has less need to rely on prior descriptions of the program.
3. The researcher has the opportunity to see things that may actually escape the conscious awareness of the participants. The participant observer can discover things no one else has ever really paid attention to.
4. The observer can learn about things program participants or staff may be unwilling to discuss in an interview.
5. Observers make their own perceptions part of the database and don't just rely on the perceptions of the participants that have been gathered via interviews.
6. First-hand experience permits the observer to access personal knowledge as resources to aid in understanding and interpreting the program.

Patton offers this explanation of the importance for participant observation.

In participant observation the researcher shares as intimately as possible in the life and activities of the setting under study. The purpose of such participation is to develop an insider's view of what is happening. This means that the evaluator not

only sees what is happening but feels what it is like to be a part of the setting or program. (p. 207)

Another important method of gathering data in case study research is the interview. Interviews are an integral part of most qualitative studies, though they are not absolutely required. The main purpose of an interview is to obtain a special kind of information. The researcher wants to find out what is “in and on someone else’s mind” (Patton, 1990). As Patton explains:

We interview people to find out from them those things we cannot directly observe. . . . We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of the observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people questions about those things. The purpose of interviewing, then, is to allow us to enter into the other person’s perspective (p. 278).

Dexter (1970) recommends when to use interviewing in data collection.

“Interviewing is the preferred tactic of data collections when. . . it will get *better* data or *more* data or data *at less cost* than other tactics!” (p. 11).

According to Merriam (1998), interviews can be structured on a continuum ranging from highly structured and standardized to completely unstructured and informal. The most structured interviews would resemble a written survey in which written, specific questions are asked in a specific order. Merriam recommends, however, that qualitative investigation should be more open-ended and less structured. Interviews may

include specific questions to obtain standardized information from all respondents; however, most of the interview should be guided by a list of topics or issues to be explored with neither the exact wording nor order of questioning determined ahead of time. This allows the researcher to probe and respond to things as they come up and allows the participant responses to emerge according to the participant's worldview. A completely unstructured and informal interview may occur at any time during a qualitative study, but it is most likely to occur in the context of an observation when the investigator needs clarification on something he/she has observed.

Document analysis is the third most commonly used research method in case studies. Documents is a term used for a very broad range of "things" may be included in a study. Holsti (1969) includes "novels, newspapers, love songs, diaries, psychiatric interviews, and the like" as examples of documents for analysis. LeCompte and Preissle (1993) include "artifacts" in document analysis such as writings, signs, tools and furnishings. Merriam recommends all forms of data not gathered through interviews and observations be included. Examples are letters, transcripts, works of art, police and court records, census data, photographs, videos, and electronic materials. In support of her recommendation, Merriam emphasizes "the researcher must keep an open mind when it comes to discovering useful documents. Being open to any possibility can lead to serendipitous discoveries." (p. 121)

Summary

The literature reviewed on research involving academic advising is very revealing. The lack of published qualitative studies, and particularly those related to the processes and methodologies utilized by advising systems, is telling. This conclusion supports my research in

terms of its ability to contribute to the body of knowledge on advising and to inform the theoretical foundations of this field.

This chapter reviewed the literature on systems theory, systems inquiry and qualitative research types and methods with particular emphasis on case studies. The literature enlightened me in terms of how similar systems theory and qualitative research are in philosophical assumptions. Both genres support looking at a “system” holistically by discovering the functions and processes of the system and how that system relates to its supra- and sub-systems. This review of literature thus helps to establish the need for the study, and the theoretical as well as methodological foundations for the study.

Chapter 3

Research Methods

Introduction

This chapter describes the methodology used in this study. The purpose of this study is to describe, from multiple perspectives, an academic advising system and its relationships to other systems within a large, public research institution. In the following sections, I present a rationale for using qualitative design to investigate the research question, the structure of case study to conduct the research, and the limitations of the study.

Qualitative Research Design

The intent of this study provides the reader with a rich description of the academic advising system at ESU and how it relates to other systems within the University. This study is not intended to provide recommendations for the organizational structure of advising systems at other institutions or generally, but rather to share with the reader the processes, procedures and methodologies used by one particular institution and how that advising system functions within the larger context of the University. To discover the complexities of these systems, this research is being conducted from an interpretivist perspective using qualitative design methods.

Qualitative methods allow the researcher to study a selected case in depth and in detail. The investigator can then approach the fieldwork without being constrained by predetermined categories of analysis. This lack of constraint ultimately contributes to the depth, openness, and detail of the qualitative inquiry (Patton, 1990).

The interpretivist paradigm, versus a positivist or scientific paradigm, allows me to study, in depth, how a system organizes and maintains itself and how the members of the system and its

related systems function to accomplish their goals. It is my goal to offer as comprehensive and rich a description of the phenomenon as possible so readers understand the context sufficiently to make their own meaning from the “story”. In order to provide the reader with a comprehensive understanding of this case, it is necessary to include as many participants from as many different sub-systems as possible in this study.

Case Study Structure

There are various philosophies that can be applied when conducting qualitative research. According to Merriam (1990), five types of qualitative study are commonly found in education: basic qualitative study, ethnography, phenomenology, grounded theory, and case study. This study will be a case study according to the descriptions presented by Merriam for a case study. She describes case studies as the following:

Case studies are differentiated from other types of qualitative research in that they are intensive descriptions and analyses of a single unit or bounded system such as an individual, program, event, group, intervention, or community. (p. 19)

Merriam also argues case studies can draw on a variety of perspectives such as concepts, models and theories.

In this study, the academic advising system at Eastern State University is the case to be examined as the system-of-interest. This study searches to discover from multiple perspectives the essence of how a system functions within the larger context of the University and will utilize systems theory constructs to inform the research.

According to Merriam (1998), case studies can be further defined by their special features. Qualitative case studies are characterized as being particularistic, descriptive, and

heuristic. Particularistic means the focus of the study is on a particular situation, event, program or phenomenon—thus, what is unique and valued in a case study. The case is important for what it reveals about the phenomenon. Descriptive means the end product will be a rich description of the phenomenon. A rich description indicates a comprehensive, literal account of the incident or entity will be given. The description will use prose and literary techniques to describe, elicit images, and analyze situations. Heuristic means the case study will help the reader understand or experience the phenomenon.

Merriam further examines the strengths of case study research if the desired outcome is to understand process. Process includes describing the context and population of the study and discovering the extent to which a program has been implemented. Process also refers to discovering the activities by which a treatment had an effect.

The Case

The case for this study is the academic advising system at Eastern State University. This case was chosen for investigation as it is a large, public research institution with a multifaceted organizational structure. A larger system should provide more interesting and complex data, thus allowing for a deeper, richer description. The second reason this site was chosen relates to its close proximity to the investigator. ESU is a three-hour drive one way for me.

When this study began, Eastern State's Director of the University Academic Services Center was Dr. James Robertsen. As Director, Dr. Robertsen was responsible for more than 35 staff who advised more than 6,000 undergraduate students. In addition, Dr. Robertsen served on the Academic Advising Task Force. I made contact with Dr. Robertsen and visited his center in

mid-March of 2003 to discuss the possibility of conducting my research there. Dr. Robertsen granted me permission to conduct this study.

This was an excellent time to be studying ESU's advising system as there were initiatives to improve academic advising system-wide being implemented. A strategic plan was in the draft stage and implementation of objectives to improve academic advising were to occur in the following year. This made it possible to not only research, analyze, and describe the system, but to experience the beginnings of change in a system.

The Researcher

I have been an academic advisor in Penn State's Division of Undergraduate Studies (DUS) for nearly fifteen years. My role in DUS is twofold: first, I coordinate the logistics of a large first-year orientation program entitled "First-Year Testing, Counseling and Advising Program" (FTCAP) and secondly, I advise approximately one-hundred undergraduate exploratory or undecided students. I am a member of the National Academic Advising Association (NACADA) and have held leadership positions at the national level of the organization for five years. I have given presentations on advising at many regional and national conferences held by the association and I have been recognized through NACADA's awards program as well. I first met Dr. Robertsen from ESU through my affiliation with NACADA. I had also met several of the ESU advising staff at various regional and national advising activities.

There are advantages and disadvantages to being so familiar with academic advising at one institution. One advantage of being an academic advisor is I have a thorough knowledge of how advising operates at a large, public research institution. Not only have I experienced

academic advising at Penn State, I have also researched and studied it through courses in my program and through activities conducted on the job. I believe that advisors at other institutions who are active in NACADA also know my reputation as a leader in the field, thus lending me some credibility with them. Because I have nearly fifteen years of academic advising experience at a large university, it is possible for the conclusions and discussions to draw on my experiences to make comparisons and help clarify questions and responses.

The primary disadvantage to being so familiar with advising at Penn State is that I have a strong bias about how advising should be done. I believe that my home program is outstanding and better than the advising system at many universities. This opinion is based on my observations of and discussions with colleagues at other institutions, but ultimately it is a bias regardless of the evidence of quality in my program.

It is important for the reader to recognize this story is viewed through the eyes of someone who is passionate about not only academic advising, but the merits of looking at a program using systems lenses. Through my graduate work and professional development, my own theories of academic advising and research philosophies have changed and I am convinced this research is necessary and will improve the profession.

Data Collection

Prior to actual data collection, all documentation for approval of this study was completed and approved at both Penn State and Eastern State Universities. Two informed consent forms were prepared for all study participants: one for employees and another for students at ESU (see Appendix C). Once all documents were approved and signed, the researcher traveled to this institution for two days every other week for several months throughout the

2003-2004 academic school year to conduct a qualitative study to describe academic advising from a systems view (see Appendix D for log of visits/itinerary). A total of twenty-eight days, spread throughout September 2003 to April 2004, were spent on site. Interviewing and observation were the primary research methods used and stakeholders who are affected by academic advising at ESU were included in the study. Document analysis was utilized to add historic and background data as well as for purposes of triangulation. Occasional telephone and email correspondence between a couple of participants and the researcher also occurred throughout the study. Participants included professional advisors, faculty advisors, advising administration, staff support personnel, university administrators, undergraduate advisees, and representatives from other systems such as admissions and registration.

The study was conducted in three phases: the initial fact-finding stage, the interview/observation stage, and the summary/validation stage. Extensive field notes were recorded, analyzed, and summarized throughout all phases of the study.

Phase 1

The fact-finding stage took approximately one month and consisted of gathering data and artifacts by the investigator. Information such as the University administrative structure and mission statement were obtained to gain a better understanding of the context in which the study took place. A tour of the University campus and the downtown area were conducted on the first visit. The history of the advising services center was investigated early on. In this first stage, it was also important to inform the participants, via group and individual meetings, about the research and gather ideas about who should be included in the study. Those who were willing to participate in the study signed an informed consent form. These initial meetings or contacts with

personnel at the institution also served to allow participants to feel comfortable with the researcher and the interviewing techniques.

Phase 2

In phase two, observations of advising practices, processes and procedures occurred within the University Academic Services Center and within advising units elsewhere at ESU. Observations included advising appointments, staff assistant procedures, staff meetings, and advisor training sessions. After initial observations were done and data were received and analyzed, individual interviews were conducted to gain insight into how participants described their advising system, or other systems as the case may be.

When developing an observation protocol, Patton (1990) recommends looking for data that illuminate sensitizing concepts in a particular program setting. These concepts include context, goals, inputs, recruitment, intake, implementation, processes, outcomes, products, and impacts. Merriam (1998) recommends the following six elements be included in the observation of any setting: the physical setting, the participants, the activities and interactions, the conversation, subtle factors such as nonverbal behavior, and the researcher's behavior (p. 97-98). All observation protocols for this study take Patton's and Merriam's recommendations into consideration and are presented in Appendix A.

When observing support staff in advising units, I noted the processes by which students gain access to academic advisors and administrators and processes for storing and retrieving student records. I also observed the communication methods between the staff assistant and other staff within the unit and with staff in external units. Throughout the course of this study, I observed the storing and management of student records. I also observed the staff support work at the reception desk in the front office three different times.

In my observations of advising interviews or appointments between advisors and students, I looked at the physical layout of the advising setting, how the advisor makes the student feel comfortable, how the advisor addresses questions from and to the student, how the advisor introduces and utilizes available resources, and how the advisor summarizes or records the interview. I also observed the student to determine how comfortable they were with the advisor and whether or not the student's advising needs were met. An observation sheet was designed (see Appendix A) based on a similar one developed by Daller, Creamer, and Creamer (1997) for their research on advising styles in practice. Throughout the study, I observed twelve academic advisors during their sessions with undergraduate students.

In the process of observing staff meetings, I looked for the power structure of the unit. Who is in charge? How do others perceive him/her? How do issues/concerns get resolved? Are staff meetings considered productive? I also spent some time simply observing the physical layout of campus and each advising unit across campus. (see Appendix A) I observed a total of thirteen staff training sessions throughout this study.

The second research methodology used was interviewing. Questions related to the ten principles described by Hutchins in the literature review were asked of participants. As is always the case in qualitative research, time in the field was necessary to develop rapport with potential subjects. Seidman (1991) recommends a three-interview approach. Interview one focuses on the participant's past experiences in context by asking for as much detail as possible about him or herself related to the topic being studied. The second interview focuses on details of the participant's present experiences related to the topic being researched. The third and final interview gives the participants an opportunity to reflect on the meaning of their experiences as they relate to the subject being studied. Seidman (p. 13) recommends interviews be

approximately ninety minutes long and that all three interviews spaced out over several days to give participants time to think and reflect on their responses. Because of busy work schedules of the subjects and my own time constraints, two interviews were conducted of most participants in this study, one formal interview using the developed interview protocol and one less formal open-ended interview as a follow-up. A few participants were interviewed one time only because of the very specific information they could provide, i.e. the history of advising at ESU.

Interviews were audio tape-recorded and transcribed and participants included professional advisors, faculty advisors, advising administration, staff support personnel, university administrators, undergraduate advisees, and representatives from other systems such as admissions and records. Seidman (p. 43) recommends a purposeful sampling technique designed to gain maximum variation when selecting subjects to be interviewed. The original proposal was to interview approximately thirty participants: 15-20 advisors, 5-6 undergraduate students, and 5-6 representatives from systems outside of academic advising. I actually interviewed nine advisors, ten faculty and administrators from systems outside of academic advising, two advising administrators, four support staff, and twenty undergraduate students. One high-level administrator was interviewed by telephone at her request. Thus, a total of forty-six interviews were conducted in this study.

During this stage of the research, it was also beneficial to clarify conclusions and answer questions developed during the observation. The following matrix provided an outline of the questions asked of various participants based on Hutchins's and Checkland's recommendations for systems inquiry. (see Appendix B for specific interview protocols)

Questions asked based on systems theory:

Type of question to be asked	Advising Administration	Advising Staff	Other unit administration	Other unit staff/faculty
Contextual/historical	What is the historical context of academic advising at ESU?	What is your particular history with advising at ESU?	What is the historical context of your unit at ESU?	What is your particular history with this unit at ESU?
Job responsibilities/description	What are your specific responsibilities at ESU?	What are your specific responsibilities at ESU?	What are your specific responsibilities at ESU?	What are your specific responsibilities at ESU?
Mission/goals	What are the mission, goals and objectives of the advising system at ESU?	What are your own personal goals for serving your client population?	What are the mission, goals and objectives of your unit at ESU?	What are your own personal goals for serving your client population?
Political Context	What is the political structure of your unit and of the University? Who makes the financial decisions and the academic decisions that affect your unit at ESU?	Who has the power here to initiate, develop and implement new programs and ideas?	What is the political structure of your unit? Who makes the financial decisions and the academic decisions that affect your unit at ESU?	Who has the power here to initiate, develop and implement new programs and ideas?
Services/clients	What services does the advising system provide and who receives those services?	What populations do you serve and what services do you offer? What populations do you NOT serve?	What services does your unit provide and who receives those services?	What populations do you serve and what services do you offer? What populations do you NOT serve?
Methods/techniques	How are these services provided?	What methods or techniques do you use to provide these services?	How are these services provided?	What methods or techniques do you use to provide these services?
Communication	How is advising information communicated to your staff? How is advising information communicated to other units?	What methods of communication do you use to disseminate information to your clientele?	How is information about your unit communicated to your staff? How is information about your unit communicated to other units?	What methods of communication do you use to disseminate information to your clientele?
Professional Development	How do you train new staff? How do you update your staff?	How were you trained for your position and how do you update yourself in this field?	How do you train new staff? How do you update your staff?	How were you trained for your position and how do you update yourself in this field?

Assessment/ evaluation	How do you evaluate your unit's effectiveness?	How do you evaluate your personal effectiveness?	How do you evaluate your unit's effectiveness?	How do you evaluate your personal effectiveness?
Strategic Planning	How do you plan the future goals and objectives for this unit?	How do you plan the future goals and objectives for yourself?	How do you plan the future goals and objectives for this unit?	How do you plan the future goals and objectives for yourself?

Phase 3

In the third and final stage, the investigator planned to conduct focus group interviews to summarize and validate the descriptions of the systems at ESU. Because of time constraints in my own schedule and ability to travel to ESU, it was not possible to conduct these group processes. I also determined that because of the changes that were made to the advising system while conducting this study, it would not have been appropriate to bring staff together to discuss my findings as their emotions were still running high and there was much fear and trepidation at that point about speaking out. I was able to talk to several of the staff via telephone several months after the study was concluded to ask how things were going. I also utilized an outside reader for this portion of the study to help clarify my findings and discussion.

Data Analysis

When conducting qualitative research, many questions emerge as the researcher probes into the phenomenon. It was anticipated that analysis of the data collected would be necessary throughout the entire study to inform the researcher of emerging issues and patterns that must ultimately be addressed, commonly known in qualitative inquiry as simultaneous data collection and analysis (Merriam, 1998). Comparisons of analyses between and within sources will begin as soon as the first data are collected. This form of data analysis is called "constant comparative" (Merriam, 1998) and involves comparing one segment of data with another to determine similarities and differences. All recorded interviews were transcribed and codified. The

researcher looked for common themes and patterns to triangulate or corroborate findings and group similar ideas or concepts into categories. Periodically throughout the study, the researcher presented preliminary analyses and assumptions to subjects to assure conclusions being drawn represented the intent of the subject's communication, a process known as "member checking" (Lincoln & Guba, 1985). The final product contains a rich description of the advising system as well as a diagram illustrating the relationships between various units included in the study. Systems terminology, as identified by Hutchins and others, will be used to describe the advising system. Recommendations for future research and for how advisors can use this description to address problems or design issues at their own institutions will be shared. As part of the final stages of this study, I asked an external reader to review the study to identify areas unclear or biased in presentation. The reader was an advising colleague who understands academic advising issues and concepts. The feedback from the reader was then used to make final revisions to the story.

Limitations of the Study

Two main limitations to this study include: researcher bias and the inability to generalize the experiences of this phenomenon to other academic advising systems. Researcher bias is inevitable and undeniable in qualitative research (Lincoln & Guba, 1985). In the case of this particular study, my experience advising at a large university may have both helped and hindered the progress of the study. My specific biases include a deep understanding of how one system operates and functions and even the strengths and weaknesses of academic advising at my home institution. Although I used interviews, follow-up conversations, member checking strategies, and a review of the summary by an external reader to mitigate my biases, my own beliefs about

academic advising undoubtedly are embedded in the story. In addition, because of my affiliation and work in the National Academic Advising Association (NACADA), I already had an established relationship with my primary contact at ESU. I chose to work closely with him as he was already comfortable with me and respected my advising knowledge and my leadership in the advising profession. I believe that he was open and honest with me and willing to allow me complete freedom to investigate as I needed to in the Academic Services Center at ESU. While conducting the study, however, my original contact was removed from his position and a new Director was brought in, one I had never met before. This change in administration was potentially a limitation for this study as I was seen as the “friend” of the original director and some staff were suspicious of me and my loyalties. I did not, however, feel that the new administrator was suspicious of my intentions and that she was open and honest with me in all my interactions with her. Another bias is that I already had ideas about the quality of advising at ESU based on knowledge gained through contacts in NACADA. Although the quality of advising was not being investigated in this particular study, it was impossible for me not to make comparisons and judgments about what I learned. Bias is impossible to avoid in the design of qualitative case studies and the most important source of trustworthiness (Lincoln & Guba, 1985) is an honest disclosure of my researcher identity.

The second limitation is the inability to generalize the experiences of this phenomenon to other academic advising systems, a limitation inherent in case study research. Although I provide a rich description of the experiences, they are specific to the context, participants, and culture of ESU. This study does not suggest to the reader how advising systems should or could be organized at other institutions. According to Merriam (1998), there are several ways to address the generalizability question in case study research. There are two ways in which this limitation

can be addressed in this study: “naturalistic generalization” and “reader or user generalizability”. Stake (1978) coined the phrase naturalistic generalization to mean that the researcher draws on tacit knowledge, intuition, and personal experience when conducting the study with the primary goal of finding patterns that explain their own experience as well as events in the world around them. “Full and thorough knowledge of the particular” allows one to see similarities “in new and foreign contexts” (1978, p. 6). Therefore, my own experience and extensive knowledge of academic advising allows me to find patterns and similarities between the two advising systems. The second concept of “reader or user generalizability” involves allowing the reader or user to apply the study’s findings to other situations. Firestone (1993) calls this “case-to-case” transfer and requires the reader to ask what applies to his/her own situations and what does not apply. My beliefs as a result of this experience are shared for those who wish to make their own interpretations based on my perspectives.

Summary

This chapter reviewed the case study and soft systems methodologies employed in the study to create a story about the academic advising system at Eastern State University from multiple perspectives. Because of themes emerging during the study, a section about systemic change was added. A foundation for conducting qualitative research was established as well as a structure for conducting case study research. A brief background on the case was presented along with my researcher identity. Finally, a description of how the data were collected and analyzed and the limitations of the study were discussed.

Chapter 4

RESEARCH FINDINGS

Introduction

The primary vehicle for advising first-year students at ESU is the University Academic Services Center (UASC); therefore, the center was the focus of much of this study. Although most upper-class students and about ¼ of the freshman class are advised in the departments they are admitted to, a majority of students pass through the UASC for advising at some time or another during their time at ESU. Participants from several departments and colleges were also included in this study as well as other administrative units closely associated with the UASC in order to provide a more comprehensive look at the entire system of academic advising.

To understand any system, it is necessary to explore the history and traditions of a system of interest. In this chapter, I will first present a history of academic advising at ESU as a way to provide a context. Decisions made decades ago about how advising would function at ESU continue to affect how it functions today. I will then discuss the changes to the advising system at ESU occurring during the time of this study and how those changes have determined the current system of academic advising. The remainder of this chapter focuses on how the various student services units at ESU interact with each other to highlight the connectedness of sub-systems of the University.

The History of the ESU Advising System

To understand any system, it is beneficial to examine its history and traditions. As is common with many institutions of higher education in the United States, academic advising at

Eastern State University was traditionally done by faculty advisors through the 1960's. Faculty within each department were also assigned a group of undergraduate students in their programs to advise. Dr. Moore currently serves as the Associate Dean for the Eberly College of Arts and Sciences but has served in several capacities related to academic advising for many years. He is the one person at ESU maintaining an oral history of academic advising, at least in the last forty years. According to Dr. Moore, in the mid to late 1960's, the faculty advising system at ESU began to fall apart for a variety of reasons. In the College of Arts and Sciences, which was the largest college of enrollment for undergraduate students at that time, some faculty advised students and some did not. Some faculty advised students from departments other than the one they were employed by. In the 1960's, when Dr. Moore started working at ESU, there were two female faculty members in the mathematics department who split the advising load between them based on how decided the students were about a major in the hard sciences or not. In other words, one faculty member advised students who were certain they wanted to major in the hard sciences and the other faculty member advised students who were not certain about their major yet. In the English department, one of the clerical staff basically did a considerable amount of academic advising and eventually became a professional advisor. So, at this time there really was not one organized and comprehensive model for advising.

In 1971, the Assistant Dean of the College of Arts and Sciences conceived a more centralized approach to academic advising in her college. This centralized advising unit was developed and accepted its first group of advisees in the fall of 1971. All students enrolled in the College of Arts and Sciences were advised in the center. In addition to this group of students, all students who were undecided about their major were assigned to the major "General Studies" and were all advised through the center as well. Pre-education, pre-journalism, pre-business, and Forestry

students were advised in the center in the 1970's. According to Dr. Moore, departments in colleges outside of the College of Arts and Sciences were given the option of their pre-major students advised through this center or not. Advisors in the center actually were faculty members from the various departments in arts and sciences who were reassigned to spend $\frac{1}{4}$ of their time advising students in the center. There were also a few faculty who "volunteered" one to four hours per week advising in the center. The remaining advisors in the center were graduate students who were given assistantships to advise approximately 18 hours per week.

There were problems in the early days of the advising center with faculty who were not committed to being available to students during their assigned hours in the center. By the second year of the center, two professional, full-time advisors were also hired. One of these full-time advisors worked specifically with student athletes. Within a few years of the creation of the advising center, most of the faculty advisors were no longer working in the center and several more full-time advisors and graduate assistants were hired. In the late 1970's, developmental advising was introduced and advisors were hired and trained in this type of advising. Many of the people hired during this time actually had guidance counseling types of backgrounds. Dr. Moore states:

Within just a few years, the faculty advisors, those who volunteered one or two hours a week, pretty much went by the by and we got so we were hiring more and more graduate assistants. Eventually, there were one, two and about four more professional advisors hired. About that time, we started to get into the mode of looking particularly for developmental advisors and these were very often people with guidance counselor kinds of backgrounds.

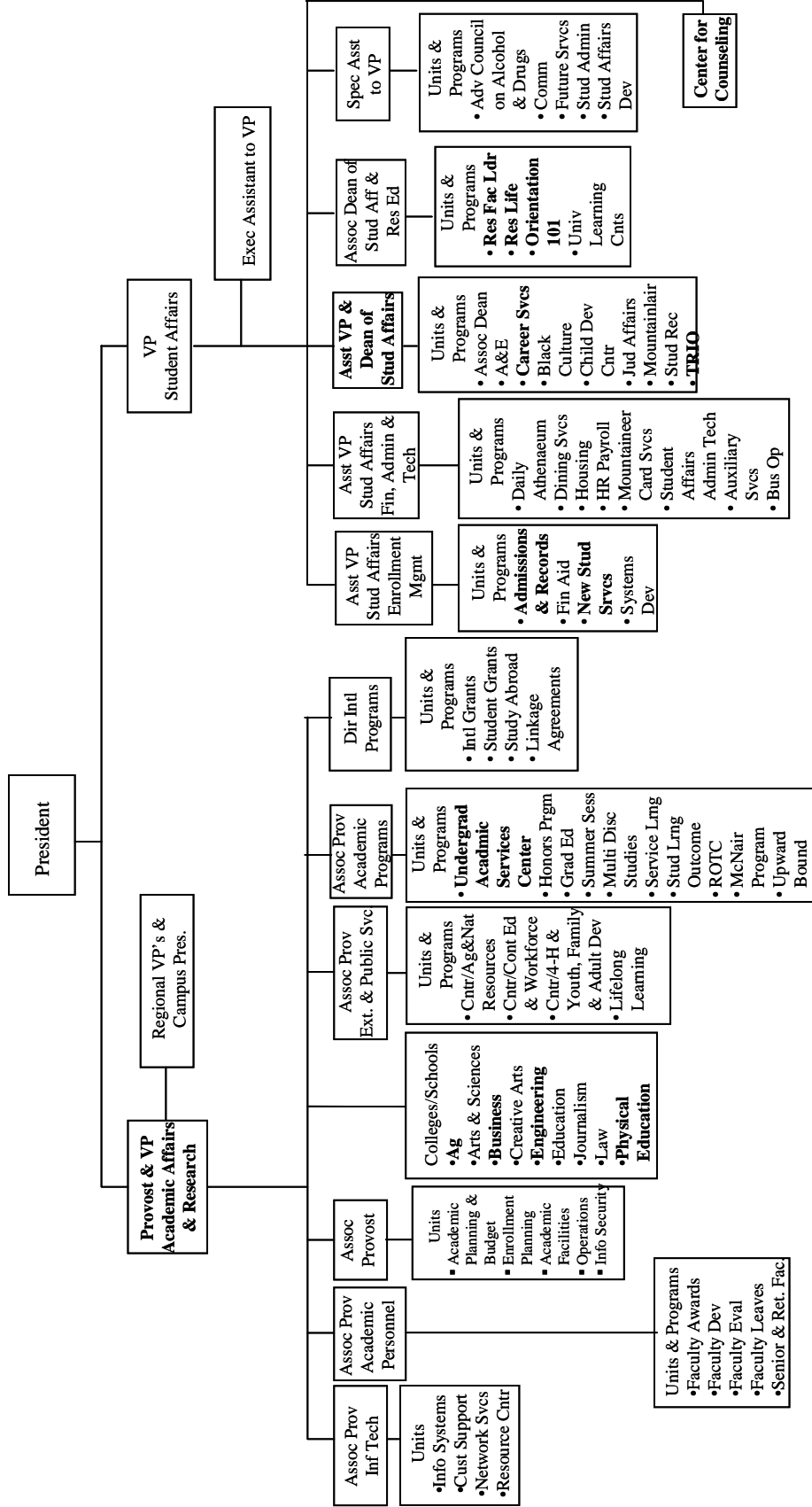
Developmental advising became a popular term for the country's advising community in the late 1970's and early 1980's. This type of advising was considerably different from the way advising had been done in the earlier years of higher education in this country. Before the 1970's, academic advising had been seen as primarily a form-signing type of activity in which

advisors simply checked-off requirements on a form to analyze the student's progress. Advising was more prescriptive in nature with the advisor simply telling the students courses to take to meet the requirements of particular majors. There was very little discussion about the student's educational goals and issues outside of the classroom contributing to the student's overall educational plan. In developmental advising, the academic advisor questions students about their interests and abilities and helps guide them through courses and other activities helping the student develop a comprehensive educational plan. Advisors began at this time to move away from being "form signers" to being partners with the student in designing educational programs that met the needs of each student individually.

At ESU, developmental advising was practiced in the Arts and Sciences Advising Center through the mid 1980's. In 1985, the new dean of the College of Arts and Sciences decided their advising center was using many of the College's resources to advise students who never enrolled in that College (pre-education, pre-journalism, etc.). He decided to split the advising center into two centers. One center was specifically for students heading for a major in the College of Arts and Sciences while the second advising center serviced students heading for any other major. The Arts and Sciences advising center was staffed by the Associate Dean of the College, a secretary, a records clerk and six graduate assistant advisors. In 1990 or 1991, central administration at ESU conducted a review of advising and determined that money was wasted to staff two separate advising units. The two advising units were merged back into one unit and named the University Academic Services Center (UASC). Approximately 26 graduate assistants and two to three professional advisors, several clerical support staff, and a records clerk staffed the advising center at that time. In the late 1990's, two or three more professional advisors were hired.

I have provided most of the current organizational chart for Eastern University (see Figure 1.) as a way to visually understand the connections between the reporting lines for various units involved in this study. Of importance to note in this organizational chart is the fact that the UASC and the academic colleges are aligned in the academic affairs camp while other student services connected to advising (admissions, registrar, counseling and career services, etc.) are organized under the student affairs umbrella. There did not seem to be any issues associated with “crossing over” in programs and services offered between these two reporting lines.

FIGURE 1. EASTERN STATE UNIVERSITY ORGANIZATIONAL CHART FOR SUB-SYSTEMS OF INTEREST*



*Units included in this study are bold.

Source: <http://www.wvu.edu/~adminfin/2003charts/2003OrgChart2.pdf>

Another piece of the advising mission at UASC was to assist students at risk. In 1995, a program called Summer Transition Entry Program or “STEP”, was started by a retention specialist for students who were deemed to be college material but below the admissions standards. These students, numbering approximately 105, started college in the summer after they graduated high school. These students were supported by a resident assistant in the dormitory and an academic advisor who teaches their University 101 course. The students were required to attend study hall in the residence halls and they are not allowed to join a sorority or fraternity during their first year. Many educational workshops and programs were planned for these students, including weekend social activities like travel to a local amusement park or attendance at a movie together.

In 1996, another similar program called the Structural Academic year or “STAY” was specifically designed for students who were suspended at the end of their first year. These students were traditional-aged students, usually numbering about 35, who live together on one floor of a residence hall and attend support services and programs throughout their first year of college. Study hall was mandatory as well as meetings with their faculty/staff mentor at least three times each semester. A graduate assistant was hired to serve as the academic advisor to this specific population. In recent years, the number of students involved in the STAY program declined dramatically. At the time of this study, only eleven students were enrolled. It is noted by the STAY advisor, a graduate assistant, the reasons for the decline of this program:

I don't know if you know anything about the history. It started in '96 and pretty much our enrollment was down [at the University] so they come up with it [STAY] to fill in the dorms. So now that enrollment is up, we're not really allowed to advertise it. I'm sure we'd get a much bigger response if we had the freedom to advertise it, but we don't have that freedom. So, yah, it's very small [STAY].

A third program to support students at risk started in 1997. The “EXCEL” program targeted students who need extra help based on their low high school grade-point-average. These students take an orientation course together taught by their advisor. The course focuses on time management and study skills. This is one of the few programs where parents are encouraged to participate as they receive progress reports about their students. This program was very successful as these students have a higher grade-point-average at the end of the program than students who entered with the same college preparation had at the end of one year at ESU.

The future of all three of these programs was uncertain by the conclusion of this study. The plan was to discontinue the STEP and STAY programs and redesign the EXCEL program. Although retention of at-risk students was still considered important, the interim director was focusing more on the retention of all undergraduate students.

There were problems with the advising models developed over the history of ESU. The faculty advising model employed a few faculty on a part-time basis to do advising out of the goodness of their hearts. According to Moore, it didn’t take very long for the faculty to realize that their rewards came from teaching and research, not from advising. The graduate assistants hired to advise part-time are a transient group. Graduate assistants were allowed to advise one or two semesters before completing their degrees and move on. Advisees then complained they did not see the same advisor twice. Dr. Moore and Dr. Robertsen, past directors of the UASC, both agree that using professional advisors in the center would be ideal, but administration was not willing to put the financial resources together to hire enough full-time advisors to handle the large numbers of students. According to Dr. Moore when asked what he would do if he could throw out the current advising system at ESU and start over with money not being an issue, he replied,

What I would do would be number one, I would have it be completely full time staff, whether they're faculty or professional advisors. I was a strong supporter in my early years of faculty advising and nothing but. I've come to develop a lot of respect for professional advisors. And I would gladly have, it's nice at one level to have the GA advisors; well the fact that they're closer in age to the students is seen as positive. But I argued that we'd like to trade in the GA's for full-time positions. So in terms of staffing at least what I would want to see is more people there on an absolute full-time basis so that we could guarantee our students that you could see so and so each time so there is an opportunity to develop that relationship.

It appeared the current advising system was trapped by its own history and tradition.

Graduate assistants were relatively inexpensive for the advising center to hire. Once the decision was made years ago to use graduate assistants to do the bulk of advising, central administration never allotted the necessary resources for the "ideal" staffing pattern. The center currently has seven full-time advisors, but their time splits between advising and managing/training the thirty graduate assistants.

Another problem with the way advising has been organized in the past is in how students were "assigned" to advisors. In the 1970's and 1980's, advisors were grouped in teams according to specific major interests and students exploring those particular majors would see an advisor in that area of interest. Students rarely saw the same advisor twice. In the 1990's, students were assigned to a specific advisor by alphabet. In other words, one advisor would handle all students whose last name began with specific letters of the alphabet regardless of the students' areas of interest. When Dr. Robertsen became director, he reorganized by melding the two old systems. Advisors were divided into teams based on majors and students were assigned to specific advisors based on the student's interests. A new director was hired in December of 2003 and a year later, she took the system back to the original one where any advisor can see any student regardless of the major of interest.

Those colleges not sending their pre-major students to the UASC for advising were free to develop their own models of advising. Currently, pre-major students in the College of Engineering and Mineral Resources were advised by two professional advisors in the college and pre-major students in the Davis College of Agriculture, Forestry, and Consumer Sciences were advised by faculty advisors in the departments within the college. The School of Physical Education advises their pre-major students primarily through faculty advising.

Upperclass students (juniors and seniors) were advised within their colleges of enrollment throughout the University. In some cases, faculty advising is the primary model for advising these students while in other colleges like Business and Economics, full-time professional advisors advise the upperclass students.

The physical setting for advising students at any institution determines how advising can be done. Academic advising should be done in a manner to maintain the confidentiality of what is being discussed between the student and the advisor. At ESU, the UASC is housed in the old medical facility—formerly the health services unit for the University. UASC currently occupies all of the first floor of the building and most of the second floor. The Center for Counseling and Psychological Services occupies the entire third floor. During the tenure of Dr. Robertsen, several improvements were made to the physical plant of the UASC. Full-time advisors had shared their office space with other advisors when he started working at ESU in 2001. Currently, the full-time advising staff, including the Director and her Administrative Assistant, all have their own offices. Before 2001, was no place for students to wait for their advising appointments and now there are folding chairs arranged throughout the advising center for students to use while waiting. The graduate assistants (GA) have cubicle-like space with several GA's in each room. Each GA has a desk and two chairs with a four-foot-high divider between each advising

station. A few of the GA's simply are at a desk spaced out in a hallway that zig-zags around between GA space and full-time office space. In all, there were two large rooms holding eight and six GA office spaces, another smaller room holding about four GA's, and another four GA's with space in the hallways between other offices. Except for the privacy the full-time advisors have in their offices, confidentiality is a real issue for the advising going on with the GA's. All students are basically seated in an open area to meet with their advisors and they can each hear the other conversations going on in the room. There were times while I was observing I could not hear or concentrate on the advising appointment I was attending because of the distractions of other advising appointments going on at the same time in the same room. The staff at the UASC recognize the dilemma with physical space for advising. Dr. Moore even pointed this problem out to me in his interview:

So I think that it is more obvious that apart from the facility, which would grant the students more privacy—they're not able to have privacy which may be a gripe of both James's and mine—in terms of staffing at least. . . .

The interior of the UASC was very shabby looking. The paint was peeling off of the walls, the flooring was old and cracked, and a wall-papered "chair rail" on the walls was peeling and falling off. Ventilation was poor, especially on the second floor, but the previous Director managed to secure a few ceiling fans to help with air circulation and the oppressive heat in the summer months. I recorded these notes when I first toured the UASC:

What a difference in appearance from the first two floors to the third! The first two floors look like a medical center – very dingy, stark. The third floor (Counseling Center) has carpeting, new furniture and nice decorating. James has been told that all other units in this building are marked to move elsewhere as money permits and that he will have the entire building [for UASC]. Conditions for GA's are deplorable! Cubicles - no privacy! James has made two major changes since he came – he got laptops for each GA (they used to share one PC) and added fans to a new dropped ceiling in the hallways. Full-time staff have fairly decent offices.

Kathy's office should be a closet! Folding chairs in the hallways serve as the student waiting area.

Advisors working in the Colleges and Departments had better facilities than those available to the staff in UASC. I observed and interviewed advisors in the College of Business and Economics, the College of Agriculture, Forestry and Consumer Sciences, the School of Physical Education and the College of Engineering and Mineral Resources and each advisor there had his/her own office space.

I don't offer the information about the physical space for advising at ESU as a criticism to academic advising. This information is important as an indication of the lack of support that advising receives from the University. When advising is done in the colleges, the colleges are responsible for providing and maintaining the space. Therefore, the advisors outside of the UASC have decent facilities and resources at their disposal. UASC, however, is funded by the University's general budget and the physical space for working with students is not a priority at ESU. The message here is clearly about the value that is placed on advising, especially for the undecided and pre-major undergraduates, and the facilities and the use of part-time graduate students as advisors is evidence that academic advising is not appreciated at ESU.

The Changing Organization of Advising at ESU

About four years ago, central administration decided the advising center wasn't serving students very well, based on feedback from students and staff. Complaints about advising at ESU were forwarded to the state legislature, the Governor, the University President and many others associated with the University. Administration in the Provost's office determined something needed to be done. Dr. James Robertsen was hired in 2001 to direct the advising center and make necessary changes to make it possible to effectively advise the growing number of students.

Currently about $\frac{3}{4}$ of the freshman class is advised through the UASC (3,000). Dr. Robertsen initiated several changes to the structure of the unit to encourage more developmental advising among the staff. Several full time advisors were sent to various professional development activities, primarily offered by the National Academic Advising Association (NACADA), to learn how to incorporate developmental advising techniques into their work with students. Dr. Robertsen began utilizing technology more to handle student records. Before his arrival, there was one desktop computer available to all thirty graduate assistants in the center for record keeping purposes. Dr. Robertsen secured several laptop computers that could be “checked out” by the GA’s for use at their desks as they met with students. Full time staff were also given their own desktop computers to do their jobs.

Apparently, Dr. Robertsen was not taking the advising center in the direction that the Provost wanted it to go and he was replaced in December of 2003 by an interim director who was assigned the responsibility of making changes in the center pre-determined by the Provost and his staff. Julie Smith, interim director, began implementing changes to the advising system immediately by requiring the staff to incorporate “group” advising and “e-advising” activities into their advising routines. “Group” advising is a term used to describe group instruction about academic policies and procedures. Students advised through UASC are required to attend a group program before they can meet individually with their assigned advisor. The group program, taught by several advisors in a computer lab, instructs students how to access their records and degree requirements to establish the courses needed to take for any particular major. There currently is no degree audit system in place, so students must use their transcripts and degree requirement information on the Web to determine which courses are still needed to complete a program. Students cannot register for classes until they receive personal

identification number, or “PIN”. They cannot receive their PIN until they attend a group program. In the past, PIN numbers were distributed by advisors at individual appointments with the students. The PIN number is changed each semester, essentially requiring students to meet with their advisors each semester to receive their PIN in order to schedule courses. One exception to this procedure now is “e-advising” or “electronic advising.” Students advised through UASC who have a cumulative grade point average of 3.0 or higher are now sent an email from UASC asking them to determine their own course schedules and return the list of courses to their advisors. Each advisor reviews their advisees’ selections and if everything is appropriate, the advisor emails the PIN numbers to the students. These students are not required to meet with their academic advisor, though they may choose to meet with their advisors.

The new director is also trying a new Web-based student record system, commercially produced, and called AdvisorTrac (<http://www.advisortrac.net/>). She believes it will be necessary to have all student records filed electronically to implement some of the changes she is recommending. Currently, when students move from one advising center to another or change majors, they must pick up their student folder and physically walk it to the new department. If AdvisorTrac works for UASC, all records will be stored in an electronic database to make transfer of records much easier.

Two of the three programs for at-risk students existing in UASC since the mid-1990’s will either be phased out or moved to another unit. The only program remaining in UASC is the EXCEL program, and plans are for it to be expanded.

Another change in the advising model for the UASC was been proposed but to date has not been implemented. Ms. Smith met with the Deans of the colleges and schools using the UASC to advise their pre-major students to recommend these students be advised in the colleges and

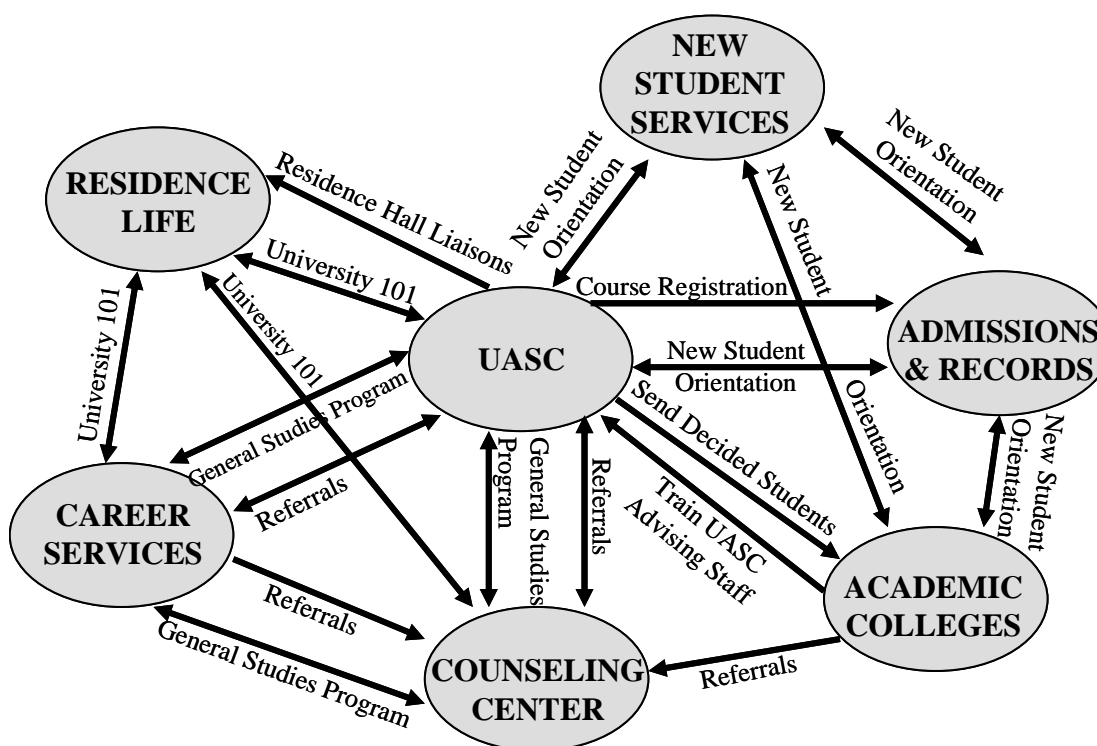
schools housing the major(s) of interest. If this plan is implemented, the UASC essentially will advise undecided students and students who could not be admitted directly into one of the colleges or schools at ESU. The original proposal was for some of the full-time, professional advisors in UASC to be placed into specific colleges to advise the students who would no longer be advised in UASC but would instead be advised in the other colleges and schools. UASC would maintain supervision and provide the funding source for advisors who would be farmed out to the other units. Students enrolled in “General Studies”, the undecided students, would be advised by the few remaining GA’s and full-time advisors housed in the UASC. The decision to implement this change was based on the poor physical space in UASC. According to the current Director, central Administration discussed the possibility of placing all student services, including academic advising, under one roof—a “one-stop-shopping” model. If this happens, then this particular change would not be implemented because the problems with the current space in UASC would be solved. The Director’s gave me this explanation for this change initiative when I questioned her:

When we get to the point that advisors are out in the units which will likely take another year, they will still be advised by us [UASC]. It will still be the UASC but we will just physically place advisors around campus instead of housing them all here. Now, we can’t do that until we get all of the records online because we can’t be carrying these paper files all over the place. Now, if the physical environment does not change in the next 4-5 years, that’s the model that we’ll move towards which will be that we’re putting advisors out there. One of the long-term plans for the institution is to centralize services, so advising, admissions and records, financial aid, career services, who knows who else, will be centrally located in one building. If they do that, then we have to rethink how often we really want to be out there because if we’re looking at a one-stop shop, then we need to fit into that model. Either model will be effective. I like the one-stop shop on this campus; they’re so confused by what we tell them.

Relationships Between Advising and Other Units at ESU

There are many units at a large institution like ESU interacting with each other on a regular basis for programming and policy setting. This discussion will focus on the units within ESU that relate to each other concerning academic advising. Please refer to Figure 2 for an illustration of the relationships between the various units at ESU that participated in this study.

FIGURE 2. RELATIONSHIPS BETWEEN ACADEMIC ADVISING AND OTHER UNITS
AT EASTERN STATE UNIVERSITY



There are one-way and two-way arrows in this figure. One-way arrows indicate that one unit provides something to the receiving unit. For example, UASC provides liaisons to the residence halls. When a two-way arrow is present, that indicates a more cooperative or shared program or

policy. For example, referrals between UASC, Career Services, and the Counseling Center are made back and forth by all parties.

Here is presented a discussion of the sub-systems associated with academic advising at ESU with specifics about their interactions. One such unit is Admissions and Records. Admissions staff make decisions about student enrollment into certain colleges and schools depending on the students' interests and qualifications to be admitted. Admissions and Records is responsible for maintaining electronic student records and the student course scheduling system. They use a commercial software product, BANNER, to maintain student records and run periodic reports. They administer the first-year orientation program and pre-schedule all incoming students for twelve credits of their first semester courses. Advisors from each school and college participate in the afternoon portion of the orientation program by meeting with students to give them pre-planned schedules and then discuss any changes appropriate to the schedule. Orientation is held in the ballroom of the student union building, and the Registrar's staff set up stations in one end of the ballroom so they can adjust student schedules on the spot. In other words, students meet with advisors from their schools and colleges, discuss the appropriateness of the schedules, then take any necessary changes to the Registrar stations to be inputted by the staff there. If the course the student chose is full, the student goes back to the table with the appropriate advisor, discusses a different course, then goes back to the Registrar's station to try scheduling another course. There is one staff member in Admissions and Records who is responsible for coordinating all of the orientation days for new students. Students pay a fee, approximately \$37.00, to attend the one or one and a half-day program.

ESU does not have a mandatory placement testing program. Students' SAT and ACT scores are used to place students into certain courses. The student, however, may challenge the

placement and would then be invited to campus to take a placement test administered by the particular department. Students who take these placement tests will come to campus for a 1.5 day orientation instead of just for one day.

The Center for Counseling and Psychological Services has been seen as a partner in advising undecided students for many years. Advisors in UASC who work with students who struggle with determining a direction are often referred to the Counseling Center for further counseling and testing. The counseling staff frequently utilize interest inventories such as the *Strong Interest Inventory* and the *Myers-Briggs* assessment instrument to help students discover potential interests in particular programs of study. At the time of this study, the staff from the Counseling Center, UASC and Career Services were working on joint workshops and courses to be offered to first and second-year students who are undecided to help them progress through a decision-making process more smoothly and efficiently.

Another department within Student Affairs at ESU interacting regularly with the advising community is Career Services. The connections between the two are currently strengthening. Career Services is part of the team recently formed with counseling and advising to offer workshops and courses to undecided students.

Residence life also has strong connections to academic advising at ESU. University 101 is the freshman seminar required of most entering students and it is coordinated by one staff member in residence life. However, the curriculum is used for this course was written by a team of staff from residence life, academic advising, career services and counseling services. Members of all of these units work in teams to teach the course each semester. There is also a liaison from UASC assigned to each of the dormitory complexes. This initiative was implemented by Dr. Robertsen early in his tenure at ESU. These advising representatives help

the resident assistants plan and conduct programs within the residence halls that focus on advising issues and topics.

The academic colleges, schools, and departments conduct training sessions for the GA's and advisors in UASC. A coordinator for training in UASC contacts representatives from the other academic units to invite guest speakers to attend one of the regular Friday-morning training sessions to update the staff on new policies and procedures within the colleges and departments. Weekly staff training was yet another initiative introduced by Dr. Robertsen.

Personal Findings

Throughout this study I was continually struck by how much the history of a system or organization can affect how it continues to function. The culture and history of my own university is so different than that of ESU and consequently the current structure of advising at both institutions is very different. At ESU, the advising center grew out of a tradition of faculty advising that simply wasn't working. The faculty were not rewarded for their advising efforts and basically did not have time to devote to quality advising. When administration realized something needed to be done to improve the effectiveness of academic advising, the advising center was formed and graduate assistants were hired to do the bulk of advising activities. At my institution, advising was done primarily by faculty within the colleges and departments. In the mid-20th century, students who were undecided about majors were sent to the Division of Counseling (DOC) staffed by licensed counselors and psychologists who worked with students with emotional and social problems. In the mid-1970's, an administrator, along with the staff of the DOC, realized being an undecided student did not mean that the student was emotionally or psychologically "abnormal." The decision produced specialized academic advising for undecided students and allowed the counseling staff to work only with the students who truly needed

emotional and psychological support. Three units were created from the DOC to address the needs of the students better. One unit became Career Services, designed to help students explore potential careers and prepare to enter the workforce. Another unit became Counseling and Psychological Services or “CAPS.” CAPS continued to be staffed by licensed counselors who worked with students with emotional and psychological needs. Finally, the third unit became The Division of Undergraduate Studies or “DUS.” DUS became an academic unit of enrollment for undecided students. Professional advisors, some of them licensed counselors from the old DOC system and some not, were trained to help students with their decision-making process. In the mid-1980’s, DUS formed an agreement with each of the academic colleges to place a DUS liaison within each college to help train faculty advisors and to provide information back to the DUS advisors about academic policies and procedures within the colleges. At each of the eighteen satellite campus locations, one staff member was appointed as the DUS liaison to serve the same purposes as the liaison to the colleges at University Park. DUS had a profound effect on academic advising throughout my institution. DUS liaisons introduced developmental advising techniques into every college and location and became evangelists for advising as a worthy profession. More and more professional advisors are being hired in the colleges and departments each year to address the advising needs of the students. Although faculty advising is still the primary model used for juniors and seniors, many first- and second-year students are now advised by full-time advisors. Most advisors now have advanced degrees from many different academic backgrounds and specialties and very few are licensed counselors.

Because of this difference in history and tradition, I think the advising systems at both institutions are very different from each other today. Advising at ESU is considered a service to students to help them choose appropriate courses. This is even evidenced through the processing

of students entering ESU for their first year. The staff in Admissions and Records developed an automated system which schedules students into most of their first semester courses without a discussion with the students about their interests.

Recent efforts to incorporate less prescriptive advising and more developmental advising were not sustained. There is a lack of financial support for advising at ESU as evidenced by their unwillingness to eliminate or reduce the reliance on graduate assistants to deliver a great deal of advising services and hire more professional advisors. The administration at ESU lacks interest in understanding a more developmental approach to advising and continues to view advising as choosing and scheduling courses evident in the decision of the Provost to force advisors to utilize group and electronic advising to process students more efficiently. After one of his last meetings with the Provost, the past director told me “the Provost threw my recommendations on the table and said, ‘Advising is not rocket science. Tell them what courses to take and get them out of your office.’” The current director said to me, “this is not rocket science, but it is complicated.” She also said, “it is time to stop thinking about theory and do something.” These statements reveal the current director is taking her directives from the Provost who has a narrower view of the value and potential of academic advising at ESU than the previous director. It was also apparent the last Director didn’t move fast enough for the Provost and the focus on the theory of developmental advising was not what the Provost valued. One of the staff who adopted the changes very quickly addressed the different styles of leadership exhibited by both directors when I asked about whether or not the changes were hard to keep up with.

I guess it’s much more fast-paced in the sense that things are happening quickly and I think [Julie’s] more demanding and her expectations are quite clear. ‘And you will do this and this is how you’re going to go about it and this is what I need you to do.’ And she puts a lot of timelines on things, this has to be done by boom, boom, boom and her mind is always constantly going in the sense that ‘I want this done and this has to get done when I need it done.’ And she’s a mover. And,

you know like, the AdvisorTrac thing she wants to implement. She has a lot of ideas and changes that she's really actually done a lot already in the short time that she's been here. You know, quick things. Yeah, some of it sometimes is a little fast because there's transitional period between what you're doing and how your job has changed and parts of your job that are supposed to go to other people and kind of what's going on with them as far as they're feeling overwhelmed.

Dr. Robertsen, the previous director, had a much different leadership style. He introduced changes with input from advisors and those working in other units who might be affected by the changes. Some of the staff perceived this more collaborative type of change to be slow and ineffective while others seemed to appreciate having more input into the process.

When I asked one advisor how his own job was changing, he elaborated more about the previous director's style compared to the way the current director works.

Yeah, there's been a lot of changes. I think the hardest part is, and this really is not a slam to James because I think his mind was on making changes but I think he was a lot into developing with NACADA and kind of had some goals or things in mind that kind of maybe didn't get along with what the Provost's office was wanting to see happen, and I think that unfortunately he was battling a lot of I really don't know what the words are, other than people not being true to form, dealing with a lot of backbiting and gossiping and kind of pretending to be his buddy but then behind his back doing things that you could obviously see. I mean, I think he was a really good guy and I think that there were issues that he unfortunately didn't see. But I think he did the best that he could with the staff that he had. And I think that, I don't know why things are moving faster than they were with him. But maybe he had a whole different plan in mind and maybe he wasn't getting—I don't know whether he wasn't getting the support or maybe he wasn't making his plan clear enough, you know what I'm saying. So, they decided this wasn't going to work. I just know that I started to feel like I wasn't needed and my job was just kind of like going out the door. And I'm like, no, I have a lot more to offer than this. Especially since I got my undergraduate degree here and I'm working on my master's degree, which is currently on hold until the fall, and so I got both of those here, well I didn't get the master's yet--that's going to be a while--so it's like you understand the academic side in some ways but not like somebody who sees the whole big picture because they've been doing academic advising for a long, long time but I always think that fresh blood can add to it because you come into some parts of it and I like the teamwork approach because you start thinking about all aspects of it whereas somebody who is just doing the advising part might not be thinking about the budgetary side, may not be thinking about the repercussion side to the student and they get into too much either prescriptive versus, what's the other word (developmental) yeah, advising and maybe they think that telling the student all the time what to take, how to take it, you know, whether the student has concerns or not, they just do it and this is what you'll do, blah, blah, blah. And they don't take into consideration other aspects. Whereas having people from different areas and different levels might be able to say well wait a minute, did you think about this. You know, everybody I think can offer something to that. And I think that some people kind

of get locked in. And then the student suffers because you get too much of a mentality oh we can't do this. Or no, we have to do it that way. And you kind of get brick walls. When you get brick walls in units what happens is it's the student that gets slammed. And, like coworkers are butting heads and the student can't get past that because the best interest of the student or the student's needs aren't rising to the top.

The statement made by this individual was very telling. This person admitted in another conversation he had gone to the Provost's office to complain about the past director's leadership. I really didn't understand his motivation for wanting to dispose of the past director until I heard him say here he felt his position was threatened and he had a lot to offer the unit not being utilized.

As a way to contrast the philosophy of academic advising at ESU, I offer my thoughts about the philosophy of academic advising at my institution. The scheduling of courses has been handed over entirely to the students via the Internet. Students never need to speak to an advisor to choose their courses. One might think this is dangerous and could lead to negative consequences, and sometimes it does if the student does not take this responsibility seriously. However, through the first-year academic orientation program, the student is made aware from the beginning their decisions have consequences and advisors are here to help them in their educational journey. Because advising is not seen as limited to scheduling courses at my institution, I think typical discussions with students are richer, more in depth, more comprehensive of all of the student's educational plans and more focused on helping the student understand decisions and why they are making particular choices. A typical advising appointment at ESU is 15 – 30 minutes in length while a typical advising appointment at my institution, at least for undecided students, is 45 minutes in length. Although most of the advising of juniors and seniors is done by faculty, most advising done with freshman and sophomores is handled by professional advisors who obtained a master's degree. There is a history and tradition

at my institution academic advising is a profession, it is valued and it is appreciated. This type of history leads to a culture open to constantly improving advising based on sound research and practices in the advising field. The culture at ESU determined academic advising is a service, students must simply be processed and pushed through the system, and making changes saving the institution money and processing students more efficiently is the priority.

The way the changes were introduced in the UASC is another phenomenon related to the culture. At no time did anyone consult with the advising staff to discuss potential changes or obtain their ideas about how to improve advising. The changes were handed down from the Provost to the new Director who began implementing changes immediately. The Director met with the staff to inform them of the changes being made, but opinions and thoughts were never considered. Students were never consulted or informed about changes until changes were implemented. For example, students did not know about the group advising plans until the center sent them information about the requirement to attend a group advising session in order to receive their PIN numbers. It was very painful for me to watch how the changes were made and in a very short amount of time as the staff were disheartened, worried, and disenfranchised by the decisions from above. One of the advising staff members was demoted and her office was moved while she was on medical leave. When I asked her about how the changes were being implemented, she said,

I came back from medical leave. I was off on medical leave for about a month. And I was coming back on a part-time basis for the month of March and then I was going to go full time. And the very first day I went up to my office, opened the door, and my office was no longer my office. Come to find out my office has been moved and everything is in boxes. No one told me. It's like a nightmare. It's like 'is this for real' and it is for real. And it just, it's very depressing.

I feel certain this particular advisor was demoted because of her strong support of the previous director and her protests about the changes beginning before she left on medical leave.

Another advisor had a different perspective on the changes made in the UASC. When I asked her to talk about the changes happening during the time of the interview, she responded:

Wow. I have mixed feelings about the changes and I say that because they are happening so quickly. Before you even get a hold of what's going on, the change has already happened or is occurring right as you're learning about it. So, in that aspect, I think that's where the mixed feelings come out. But in the long term, I see it becoming a positive thing, leaving us to have more time to develop programs and workshops. I think that's a positive thing with the online advising.

I asked her if she felt like she had any input into the changes and she said:

DR: No. I see the, I know I'm here employed to do a job. How can I say this? I'm not in a position to give input or let's just say in a position to, do you know what I'm trying to say?

TM: You don't have any influence?

DR: No. I don't have, I can't really explain it. I'm not in a position where I'm expected to give, I guess that's what I'm trying to say. I'm trying to say if there was an ear, an opportunity, that would be great. But I don't expect it.

I was surprised by the willingness of the staff at the UASC to implement changes very rapidly to the advising system. The GA's feel they are hired to do a job and will do whatever the job requires. Apparently, some of the professional advisors feel the same way. Although there was much grumbling and venting going on behind the scenes, everyone felt powerless to talk to the Director or anyone above her about the changes. The staff talked to me on several occasions about their feelings concerning the changes, but they either felt they were unable to speak to the Director, or nobody would listen anyway. One advisor asked the Vice Provost if the UASC staff could have input into the future decisions and he was told to write their ideas down and give them to her. He did write her a lengthy letter but there was never any follow-up. Several staff members shared their ideas for the future with me, and I was struck by how simple and how elegant the changes could be to improve the advising system there. I recorded these notes after several discussions with the professional advisors:

The staff have great ideas for improving advising without spending a lot of money. One advisor suggested that Admissions and Records simply spread out the registration dates for students so that the students have more time to get in to see an advisor. Another advisor recommends that only those students who are undecided, having academic difficulty or other problems be required to see an advisor. The support and technical staff are willing and able to streamline operations with the use of more computerized processes. One advisor has ideas about a student records database that would be available to all advisors which will replace the need for paper files. Everyone talks about developmental versus prescriptive advising.

As is true with any change effort, there are always some people who align themselves quickly with the change agent and in change terms they are called the “early adopters” of an innovation. At the UASC, this was true of four staff members who were unhappy with the previous director and anxious to connect with the new director to implement change. All four were ultimately promoted within the system and given more administrative responsibility. It is interesting to note here two of these four individuals had little to no advising training or experience and yet were promoted to advisor management and training positions. Because the staff resisting the changes was demoted and the early adopters were promoted in this change effort, the message was very clear to the entire staff. They better get on board with the changes if they wanted to maintain their current positions in UASC.

When I asked the Director her feelings about how the changes were going, she was very positive and stated:

I don't know that we've had too many failures yet in the initiative—I would say none as far as that goes.

I asked her to describe what the UASC will be like one year from now and she said,

We're far more program oriented. We're looking at the total student and how we fit in as developmental and prescriptive; how do we fit in to the bigger picture of the institution. And it's exciting right now because the whole institution is doing that. There's very few cells out there that aren't recognizing the total system and the total student and how we have to work as a unit. So I see us developing far more programs for them. I'd like to see the numbers of students at the junior and

senior level that are not in majors go away. And I think that we have developed the MDS [Multidisciplinary Studies] program that can do that. I'd like to see every student enlist the culture that they are the owner of their progress. And I mean the methodical progress. I don't mean the developmental progress; the methodical progress of picking up the undergraduate catalog, questioning whether or not the information was given to them correct. I'd like to see the responsibility placed on the shoulders of the students with us here as their support.

The director was the change agent in this change process. She took direction from her superiors, but she was responsible for developing a workable plan to achieve the goals. She maintained a very positive outlook on the change initiatives throughout the time of this study and that optimism was palpable by myself and the staff. She had a very clear vision of where the advising unit was going and how it would get there and she shared that vision openly with everyone. At first, it was not a shared vision by everyone, but the powerful optimism of the director did eventually convince most everyone to support her vision and change efforts.

At the very end of this study, I was able to conduct a telephone interview with the UASC director's supervisor, the Vice Provost. During my interview of the Vice Provost, I asked her how the changes were going in UASC. She stated,

The mood is good. Several staff have left, a couple of long-term staffers have turned up with serious health issues and quit. It seems to be a much happier place when you go over there now.

It is natural for the leaders of an innovation to only report the positive aspects of the change, especially when those leaders don't really seek out the feelings or thoughts of the stakeholders involved. Had the advisors and other staff members been approached about their feelings, they may not have been truthful about their misgivings anyway because they were afraid for their jobs. Again, it is necessary here to restate that some of the staff were very happy with and accepting of the changes, though my research revealed that there were more who were unhappy

and concerned about the methods used to implement change in the unit than there were those who were excited about the changes.

As I studied the advising system at ESU and compared it to my knowledge about my own experiences with academic advising, it was striking to me how much my study of systems theory really illuminated how and why two systems at two similar institutions can be so different from each other. The culture, history and local traditions that influence how a system is formed and how it maintains itself determines how a system will function, change, improve, and develop. I will explore these systemic concepts in more detail in the next chapter.

The changes that occurred in the advising system at ESU, and particularly the way that the changes were made so abruptly were quite shocking for me. I could not imagine anything like this happening at my institution. Experiencing these upheavals during the study was all a testimony to the fluidity of conducting qualitative research. Emerging themes are often quite unexpected, and I was not ready for the dramatic changes that occurred during this study which caused me to take my research in a new direction. I will explore systemic change further and how the changes were made at ESU in chapter 5 as well.

Chapter 5

Discussion of Findings

Introduction

Understanding a system requires the researcher look at many different aspects of how the system of interest is organized. A description of the history and current status of the academic advising system at ESU were provided in chapter 4. This chapter examines the advising system at ESU from a systems perspective by using Hutchins' ten recommended principles necessary to really understand any system. A discussion will follow about systemic change and how the changes made at ESU during this study were implemented affecting the future of academic advising at ESU. Finally, conclusions will be drawn about the importance of this study and how systems theory is useful in the examination of any system of interest and recommendations will be made for future research.

Hutchins lists ten areas of investigation that must be examined in order to understand any system. I will address my findings in relation to these ten principles.

Principle 1. Each system must be considered in its wholeness, not its parts.

At times it was difficult to look at the broader concept of academic advising at ESU because of my own background working specifically with undecided students. My own interest is more closely related, therefore, to the advising of first and second year students. I was naturally drawn more to studying advising through the UASC which advises most first-year students and all students who are undecided and therefore classified as "general studies" students. I can justify the disproportional time spent studying the UASC as it is the largest center for academic advising at ESU. I did not, however, disregard academic advising of the other undergraduate

students at ESU. I interviewed faculty and associate deans in several colleges at ESU who advise their own students.

Academic advising at ESU is not completely centralized or organized under one roof. The UASC is physically housed in one building on campus with UASC administrators, advisors and staff support occupying the first two floors of the building. I say that advising is not “completely” under one roof because the UASC does advise about 7,000 students equaling 30% of the total undergraduate population. The remaining 70% of students are scattered among the other colleges and departments and are advised primarily through a faculty advising system. By comparison, at all 19 Penn State campus locations, approximately 6,800 students are enrolled in Penn State’s Division of Undergraduate Studies, the academic unit or college for undecided students. This represents about 10% of the total undergraduate enrollment of 69,200. So, in comparison, the UASC does advise a large proportion of the undergraduate population at ESU.

When students are accepted at ESU, they are assigned to an academic unit based on the stated choice of major on their application. If a student is undecided, he or she indicates on the application and is automatically assigned to the UASC and officially recorded as “general studies.” Students who are certain about their majors and select majors that assign their pre-major students to UASC are assigned to UASC but are officially recorded as “pre-journalism” or “pre-education”, etc. Students who apply to ESU for majors that directly admit students into their colleges are assigned to those colleges, i.e. the College of Agriculture, Forestry and Consumer Sciences or the College of Engineering.

Faculty advisors handle a large portion of the juniors and seniors at ESU who are traditionally in their intended major. There are a few colleges, the College of Engineering and Mineral Resources and the College of Business and Economics, for example, who have staff or

faculty assigned the duty of advising all pre-major students. Even in these colleges, though, faculty advise upper-class students once admitted into their intended majors.

By interviewing and observing administrators, faculty advisors, professional advisors, part-time advisors and students, I believe I saw the academic advising system at ESU from many different angles. If I had focused on advising through the UASC and ignored the faculty advising models used in many of the college units at ESU, I would not have understood the wholeness of the system as Hutchins advocates.

Principle 2: There is interconnectedness among all systems within a system.

In Chapter 4, I discussed the connections between various units at ESU and how they relate to academic advising. Admissions and Records, Student Affairs, Career Services, Counseling Services and Residence Life at ESU have solid connections with academic advising. It is interesting to note these units are not connected either administratively or fiscally and yet work collaboratively to achieve common goals. Although the connections between units are not formal in terms of organizational ties, it appears to be the outreach of individuals within these units forming these relationships. There are strong connections among the academic departments and colleges and academic advising. Staff within the colleges and departments conduct the training needed by the advising staff to remain current on academic policies and programs. The advising staff contacts representatives of the departments and colleges to clarify answers to questions for advisees. These sub-systems actually make up a very substantive part of the entire ESU system. The physical plant sub-system may be the only part of the ESU system not having a working relationship with academic advising, though they are responsible for maintaining the facilities. Because these sub-systems within ESU are all connected by programming and mission in some way, I believe that Hutchin's second principle was confirmed in this study.

It was very interesting to find the connections between many of the units within ESU were not formalized. There was no one person at the “helm” asking or forcing the units to work together. The connections were formed, in most cases, more informally by individuals reaching out to one another. When I compare what I found at ESU to my own experience at PSU, I was struck by these informal connections as they don’t appear to be as common at PSU. There are small pockets of staff at Penn State who work together on projects related to academic advising, such as our Web-based advising system known as “eLion”; however, these connections were initiated more formally by an administrator. In the larger Penn State system, the collaboration between units who provide similar services to students are not very common. Decisions have been made having negatively affected the students because of the lack of communication and interconnectedness among units at Penn State.

Principle 3: A system is more than the sum of its parts.

One cannot take a system apart and examine each segment separately and then claim to understand that system. It was necessary for me to first understand how many sub-systems are involved in various aspects of academic advising at ESU and then to look at the synergy between the units. If, for example, Admissions and Records decided they would no longer work together with the academic advisors to schedule courses for students, the entire advising system would fall apart. The staff in Admissions and Records perform a service for students by placing courses on their schedules, managing the space needed in specific courses (enrollment management) and gathering and storing academic information collected for students, faculty, staff and others to access. Their staff, however, were not necessarily trained in the specific requirements for graduation from every major at ESU. They do not know the intricacies involved in helping students explore options. They must work with the advisors to develop course schedules making

sense for each individual student. Academic advising would not function properly without the services provided by Admissions and Records. It is the dependence each unit has on the other units to work effectively with students which captures the synergy.

Principle 4: It is not possible to assign a single purpose to a complex social system.

According to Hutchins, et. al., it is not possible for one person (the researcher, for example) to determine a single purpose of a complex human system. I could say the purpose of academic advising at ESU is to help students graduate from college. An advisor at ESU might suggest the purpose of the advising system at ESU is to help students navigate a complex set of information and decisions in order to make informed choices. A ESU student may believe academic advising is solely there to help him/her choose the correct courses to take at the correct time in his/her college career. An administrator might propose the sole purpose of any academic advising system is to retain students.

There are, however, purposes most systemic thinkers would agree are common to all social systems. Survival for any system is its primary purpose. Autopoiesis is a systems term referring to the idea “that living systems actively maintain their own identity and autonomy in order to survive.” (Hutchins, p. 50) A social system, like the advising system at ESU, will do what it can to organize itself to survive. This concept was vividly displayed when the director of advising was replaced early in this study. The new acting director immediately set about reorganizing the advising unit for its survival. The administration threatened to completely dismantle the UASC if certain changes were not made. The director began making those changes immediately in order to insure the survival of this advising sub-system. The demise of the UASC would have had profound affects on the entire advising system at ESU. The 7,000 students advised in the UASC would have been placed out into the colleges for advising. The colleges did not have the staff or

resources to advise these students. The entire system would have had to restructure itself if the UASC had not restructured itself first. Yes, some of the restructuring in the UASC affected related units. The changes did not disrupt the system so dramatically to cause the entire system to collapse.

Another purpose that assigned to social systems is the idea systems want to survive at the highest possible level of its expectations. This means all systems want to do more than just survive: they want to expand, provide better services to their members, “be all that they can be,” to adopt a popular phrase from the U.S. Army. I feel this purpose helps explain the connectedness between the various units involved in advising at ESU. Individual staff members formulated ideas about conducting collaborative programs with other units would improve their services and reach more students. This is the purpose prompting them to form relationships with others and developing more and better programs for the students. Advisors could be satisfied to simply sit in their offices and wait for the students to come. My experience at ESU and at Penn State showed me advisors are not content to wait for the students to decide their needs. Advisors reach out to students by developing resources students access from their rooms, by providing advising services at convenient times and locations for the students, and by collaborating with staff from other units to provide them with advising-related information useful in their own programming.

This purpose of survival and survival at the highest possible level helps to explain why systems naturally resist change. Change, as perceived by the people within the changing system, threatens the survival of the system. Ideas of change will be discussed later in this chapter. It is necessary here to introduce the idea resistance to change is a natural occurrence in any system because of its inherent purpose of survival.

Principle 5: A system cannot be understood until one understands the multiple functions of the system.

According to Hutchins, every system must take in information, energy and matter, process it in some way to make sense of it, and then put the results of that processing back into the environment. The following diagram (Hutchins, p. 61) illustrates Hutchins' basic model for describing a system's functions:



In order to really understand the functions and subfunctions of any human system, it is easier to break down these functions into these three categories for discussion purposes.

Input Subfunctions

Systems are constantly taking in information in order to function. This information may pertain to clients, changes in the environment, new technologies or processes, etc. Individuals within the system may take in information and the system as a whole will also take in information. A well-organized system will gather and seek information in a formalized and planful manner. An organization that does not determine appropriate means for gathering, processing and disseminating information will have difficulty maintaining itself. At ESU, weekly staff meetings and training sessions were the primary source of new and changing information for the advising and support staff. Presenters were brought to each meeting to give updates and pertinent information important for advisers to be able to serve their students well. There were also committees set up of representatives from various offices to share information and conduct program planning. Some of the staff worked with Residence Life for program planning while other staff worked with Career Services on improving University 101.

Transformation or Process Subfunctions

Once a system determines how to take in information, it must then process that information in some way so it is useful to the members of that system. Hutchins breaks these subfunctions into several types: input conversion, internal distribution, memory and storage, decision-making, production, energy and support.

Advisors must constantly take in a large amounts of information and make sense of it in order to share this information with their advisees. Hutchins calls this “input conversion.” (p. 65)

Academic policies and procedures are determined by the University and by individual departments. This information constantly changes. Training within a university system is necessary to keep advisors informed of this crucial information. Working individually and in groups with undergraduate students requires training in student development, the counseling process and in communication skills. The audience is changing and their needs change with the profession. For example, changes in the use of technology in the past several years opened up new communication possibilities, but with these new initiatives a new set of problems and hurdles surface. Advisors must constantly question their craft and develop ways of reaching the student with the resources available. At ESU, weekly training and updates to make sure everyone was informed of advising issues related to a variety of academic programs. Training included the methodologies for working with students individually. Periodic staff meetings, usually conducted by the Director, served to keep everyone informed of programmatic changes occurring from within the advising community and from without. Written communications in the form of memos and/or emails were distributed regularly to inform people. In addition to these more formalized methods of distributing information, there were informal practices observed. Graduate assistants were able to discuss their questions and concerns with each other and with the professional

advising staff in the halls and offices of the advising center. Similarly, the professional advising staff talked informally about advising issues and concerns.

Advisors sift through the mountains of information to determine what is necessary for the student at different points in their college careers. First-year students are not ready to understand and know every requirement and detailed nuance of being a student, while juniors and seniors must be encouraged to look beyond their college careers and into the future.

After a system takes in information and processes it, it must then distribute the information. Hutchins calls this process internal distribution. Advisors must find better ways of communicating new and ever-changing information to the students. They must communicate with colleagues about the importance of good advising and how advising takes into consideration when new programs are developed or policies are made. Advisors synthesize large amounts of information and then find ways to communicate to faculty advisors and administrators who may use information to make decisions or set policy.

Human systems like advising must also store information. Even though new graduate assistants begin advising each semester at ESU, the information and knowledge they must have is stored so it can continue to be passed to the advisor and ultimately to the student. The UASC developed materials, like the staff handbook and the UASC Web site, to help them store important cultural and technical information. The physical layout of the UASC building made it possible for information to be stored and then shared through individuals. The history and tradition of the UASC is passed down verbally through individuals who stored this information. This constant storing and distributing of information makes it possible for the functioning of the system to continue with turnover of staff and leadership.

Another function of a system is to make decisions. Decision-making is often centralized in complex systems. At ESU, the Provost and his staff were the primary decision-makers concerning the UASC. The interim director made decisions, based on the directives from her superiors, about how to implement their decisions. Even though major decisions were made by the leadership at ESU, individual advisors could make decisions about how they would work with each student individually. In other words, each student presents a unique set of interests, abilities, and sometimes problems or concerns, and each advisor must be equipped with enough knowledge and experience to be able to decide the best way to deal with each student.

Production is another function described in systems literature as common to all systems. This function should not be confused with the “product” of a system. The question needing to be answered when investigating a system is “what processes does the system use to produce a product?” In a manufacturing system, it is easy to determine how something is produced. However, even in complex human systems, something is produced and goes through some time of production process. Boulding, as noted by Hutchins (p. 74), claims the “essence of the production function is it turns less ordered material into something of a higher order.” In an advising system, advisors help to mold and shape a student who comes to the university with very little knowledge about what higher education is or of its purpose. The student comes in confused and hopefully open to new ideas and possibilities. The advisor and the educational experience work together to create opportunities for the student to become a knowledgeable, well rounded citizen of our society upon graduation. Advisors meet with students one-on-one to answer questions and teach the student how to navigate through the system and make decisions. Advisors at ESU provide tools to the student to aid in their transition from high school to college such as counseling support and academic resources on the Web and in print.

Hutchins describes “energy” as another function of any system (p.74). In human systems, people obtain energy or momentum from the ideas or suggestions of other people. In the advising arena, this is what advisors probably do best. A student presents certain personal characteristics, some concrete interests and goals and a set of academic abilities leading the advisor to suggest a group of majors and/or courses matching the particular traits of a student. The student takes those ideas or suggestions and researches the possibilities. These ideas give the student the energy necessary to make progress in the decision making process.

Support is another sub-function of a system. There must be staff in place to support the system’s functioning. In the case of advising at ESU, there were front line staff who greeted students and visitors as they entered the advising center who also scheduled students for their advising appointments, referred students to other support services, and processed forms and paperwork on behalf of the students and advisors. They answered telephone calls and responded to email communications from students and others outside of the advising center. A computer/technology specialist helped design and implement technology-based support systems for advisors and students. The Director had an administrative assistant to help with her day-to-day schedule and process a variety of administrative forms and procedures. There was obviously support from the system’s physical plant in terms of spatial maintenance, though this function was never observed by the researcher.

Every system produces something, either intentionally or unintentionally. The advising center at ESU intends to produce informed students who are ready to enter a particular major and ultimately graduate with a degree.

Boulding notes by-products of producing something are always created. These by-products would be considered waste and are always less ordered than the product itself. In the case of

advising, there are always those students who do not progress well through a system of higher education for one reason or another. They drop out, withdraw, or move on to other more appropriate pursuits. These students were not prepared, committed or ready for the higher education experience. They leave the University either with new directions or knowing they have failed the pursuit of a degree from ESU. One could argue some advisors may get burnt out or discover advising is not their niche and become a by-product of the system.

Principle 6: A system's structure determines how it functions.

It was very apparent at ESU the structure of the advising system, and particularly the culture of Eastern State University itself, contributed to how it functioned. Because advising is done primarily by a transient group of graduate students, it was necessary to provide ongoing training and observation to insure the advisees were receiving quality services from the UASC. Academic advising and particularly understanding all programs at a large university require a large knowledge base. Forms and procedures were developed to make sure the graduate assistants knew what they were doing and did not make mistakes. The function of processing forms and paperwork causes advising to be seen as simply “form-signing” by students and by other professionals at the institution. If the structure had been different, it may have been easier to use a less prescriptive and more developmental form of advising.

The leadership for the UASC was somewhat autocratic, asking for very little input from the stakeholders (students, advisors, graduate assistants, parents, etc.). It seemed to me this type of leadership at ESU was part of a long history and tradition and possibly related to the culture of this state. The leadership for academic advising determined what changes were necessary to improve advising services with very little input from those who would be affected by change. These changes were mandated and passed down through the ranks. The changes were

implemented very rapidly—within a few months. The structure and tradition of management of the advising system at ESU made it possible for these changes to be made so rapidly. I was very impressed with the advisors at ESU who continued to be concerned about the welfare of their students and do the best they could to reach out to the students under these stressful physical and emotional conditions throughout the change process.

Hutchins (p. 82) says if you want to change or improve the way a system functions, you may need to change the structure. Essentially this means the parts of the system and how they relate to each other will need to be changed. People making changes in a system often make the mistake of changing the parts, i.e. the personnel or the training program, *or* they change the way things are grouped or organized. They don't look at the functional relationships between the parts of the system when change is initiated and implemented. I believe the caution Hutchins offers us was ignored at ESU throughout the change process. Staff in the UASC were re-grouped and re-assigned responsibilities according to the change plan of the interim director. Changes were abrupt and staff were not given an opportunity to discuss the changes. Other parts of the system were not included in the development of the change process, such as the support staff, students and administrators in other related units. Support systems such as electronic communication and student records were not updated and prepared when changes were made. While it is true the changes were forced on the staff and everyone did their best to adopt the changes, the strain on the staff and the system was great. Hutchins (p. 83) warns us that the danger of implementing changes to fix one part of the system without considering the changes necessary to improve the entire system could result in the collapse of the entire system. Hutchins calls this “suboptimization” and describes it as “the failure to move all subsystems through a parallel improvement process.” Though the stress on the system was great for the first six to eight

months, within a year the system had stabilized itself and adopted most of the proposed changes. As of the writing of this paper, most of the staff were feeling comfortable with the changes and even felt that the changes were necessary and successful.

Principle 7: The boundaries of any system-of-interest must be defined.

The boundary of any social system is often very difficult to define (Hutchins, p. 100). There are many types of boundaries defining a system, for example physical, economic, social or even psychological boundaries will constrain that system in different ways. At ESU, the UASC or primary advising system was defined in a physical sense by the building where it was housed. Only one UASC staff member, the athletic advisor, worked outside the walls of the UASC building. Defining the advising system at ESU in a physical sense does not really give us a good picture of its boundaries. I would argue the boundaries of academic advising at ESU are determined by its functions. The people engaged in helping students navigate the university and make informed decisions about their educational goals and those who support or utilize these functions determine the boundaries of the advising system. Here is an example of a “boundary” defining advising at ESU. The UASC staff work closely with staff in residence life to develop programs for students living in the dorms and to teach the University 101 courses for all first-year students. The advising staff helped raise advising issues and topics to the table whereas the residence life staff bring student life issues to the table. Even though these two systems come together for a common purpose, to educate students, they are two separate entities with different purposes and functions. Another example: the staff from admissions and records help students physically schedule their courses while the advising staff help students make decisions about which courses are appropriate to schedule. Although the interaction among the systems is crucial

to the University's handling of students, the goals and functions of these systems are distinct and unique.

Another important concept related to the boundary of a system is how the boundaries allow the system to be open to exchanges in information and matter across its boundaries, or how permeable the boundaries are. If a boundary is rigid and does not allow for an exchange of information or energy, then the system is closed. The fact the advising staff at ESU worked closely with the staff from various offices at the University attests to the openness of that system. They worked together with other units to inform each other of changes to processes and procedures or simply to changes in information. Weekly staff meetings in the UASC allowed the advisors to receive information from various academic units that affected their jobs. Collaboration between various units at ESU allowed a team approach to teaching and advising students. If the administration and staff within UASC did not work with staff from residence life or admissions and records, the system could be in danger of collapsing because of the lack of feedback and information sharing. Advisors would not be able to give their advisees correct information and advising issues would not be included in discussions other units had about working with students.

Principle 8: Understanding how a system achieves its purpose(s) is essential to understanding the system of interest.

How a system attempts to control the direction it is going to insure survival is an important principal in understanding a system. Feedback loops tell the controlling entity of a system when to change directions or keep going in the same direction. A negative feedback loop initiates a change in direction while a positive feedback loop encourages movement in the same direction.

A great example of feedback loops occurred during this study. Previous assessment activities conducted from within and from outside ESU triggered negative feedback about the advising system. The advising system's controlling agent, in this case the Vice Provost and his staff, determined change was necessary and even determined what change should be. When the Director of advising resisted the type of changes recommended, the controlling agent eliminated the obstruction and brought in someone who would support the proposed changes to the system. Hutchins states negative feedback loops are sometimes referred to as "morphostatic" because they cause the system to remain in a fixed or static position.

Positive or reinforcing feedback loops help a system to change directions. This can be described as "morphogenetic", which Hutchins defines as the positive feedback that produces or initiates change (Hutchings, pg. 113). When the new Director of advising was brought into the system, she initiated changes forcing the system in a new direction. The controlling agents then provided reinforcing feedback encouraging and allowing the system to keep moving in a new direction. Hutchins also describes the speed at which a system can change directions with positive feedback. "Exponential growth" describes the speeding up of change due to the amount of positive feedback a system receives.

Extremely rapid growth isn't necessarily a good thing. The controlling agent must have the ability to at times limit change/growth and at times encourage change/growth. This is a delicate balance and is essential to the understanding of any social system. Both negative and positive feedback loops, therefore, are essential to the survival of a system. While the new director of advising provided positive feedback to those within the system who adapted well to the changes, she also provided negative feedback to those who were resistant to the changes in the form of job termination and demotions.

Hutchins discusses the concept of “self-regulation” as it relates to living and social systems (pg. 120). This term is often used in a similar way in cognitive psychology and refers to the way in which humans take in information and “construct” something meaningful to them. Systems self-regulate by determining how they will function, what subsystems they will interact with and how they will reproduce themselves. Social systems create themselves, giving themselves their own meaning and purpose, and regulate themselves to help achieve their own goals. Maturana and Varela refer to self-regulation as “autopoiesis.”

One aspect described by Hutchins as it pertains to self-regulation is the idea of “equifinality” within a system. Equifinality refers to the concept of having all members of the system involved in the regulation of their own work within the system. In the extreme use of this concept, all workers would have the right to participate in all decisions made for the system.

The changes made to the advising system during this study are an example of a system self-regulating itself for survival. Academic advising was threatened by negative feedback. The system had to change to continue its function of helping students achieve their educational goals. Equifinality or the incorporation of input from ALL members of the system to make decisions was not present in these changes, the system did encourage its members to become involved in the change and to redefine for themselves what their new roles and functions would be.

Principle 9: All systems must adapt to their environment if they are to survive.

The way any system adapts to its environment is by learning from its environment and then processing what it learns into actions. Through staff development and training, advisors learn new processes and new information and determine what parts of that information are relevant to the advisor-advisee relationship. They must constantly ask themselves, “What do our students need to know and when?” and “What is the best method to use to get this message across to my

students?” Through their experiences with students, advisors constantly learn the best practices to use for various scenarios presented by students. During one observation at ESU, I listened as an advisor reprimanded her student for waiting until the deadline for a procedure to come in for assistance. The advisor learned from previous experiences often the students who are most at risk for not accomplishing their academic goals do not stay on top of the necessary procedures they need to follow to promote success. She took what she had learned and used the information to teach the student a valuable lesson. This concept of taking what we have learned to help shape or change the future is paramount in systemic thinking. This advisor probably could have given her student a concrete example of the consequences a particular student had suffered by exhibiting the same irresponsible behavior.

Another example of how learning is accomplished within an organization is planning. People can learn from predicting possible future directions and then ultimately choosing to go in one direction. When things don't work well, then planning starts over again based on what was learned from the previous tries. One initiative the advising administration planned to take in their change process was to have more students advised in the academic colleges based on initial academic goals and interests. In other words, fewer students would be considered “undecided” based on some indication of a goal during the admission process and would be enrolled into the college and assigned to be advised by someone in the college rather than being advised by the UASC staff. A slightly different idea for providing advising to students who had some academic goals was to have them advised by UASC staff who were placed out in the colleges. Neither of these options was readily accepted by the administrators of the various colleges based on required resources to accomplish this change, so this part of the change plan was rejected.

Principle 10: Systems are always changing.

A system not changing is considered in systems theory terms to be in equilibrium and essentially is dead. Change is necessary to maintain survival for any system. A system can be stable yet be in a state of flux or change. Capra terms this state homeostatis. A system in homeostasis balances change with reactions to its environment. A system not adapting to its environment is not changing and headed for extinction.

The changes occurring at ESU during the study illustrate a term used in systems theory called “bifurcation.” A bifurcation point in the change of an organization is when the fluctuation is so profound it is difficult to determine if change will cause the system to disintegrate or leap to a higher level of organization. In this case, the system managed to move to a more complex organizational structure. Because of the changes, advisors were able to use available technologies to advise students in new ways. By utilizing electronic communication methods to reach students, the students were exposed to new information and instruction in new ways better matching their culture. The changes allowed the system to adapt better to its environment and manage the change efforts with ease.

Systemic Change

In order to initiate change using systemic methodology, one must use the principals Hutchins lays out to first examine a system and understand it as a whole entity. The theory tells us all stakeholders associated with any system and its subsystems must be incorporated into the decision making process for change for acceptance and buy-in. Banathy (1996, p.228) also agrees when he states “the design of a social system is authentic only if it is carried out by the stakeholders of the system.” Jenlink et al., (1998) term this requirement for systemic change as

“inclusivity” whereby the change effort should include all people who have a stake in the system. When those affected by potential change are not part of the decision making, they become suspicious of the change efforts and assume these changes threaten the system’s survival or their personal stake in the system. When a system feels threatened, there is an obvious resistance to change.

Although the changes made to the advising system at ESU had potential implications for several sub-systems, these changes would not be considered “systemic change” as all decisions about changes and how they would be implemented were made by administrators outside of the advising system. Therefore, one would probably call this a top-down mandated change, which typically engenders a fair amount of user resistance. Banathy (1996, p. 39) would call this type of change effort “organizational mode and culture” whereby the changes are bureaucratic and the vision of the organization is defined at the top. The culture, therefore, is one of management versus employee.

The corporate world offers us other types of top-down change processes that more closely describe the process used at ESU. Eccles (1994, p.10-11) describes strategic change as the “realization of intentions” of an organization and the intentions (or goals) are often defined by the board and top management. He further explains that “a radical plan for strategic change rarely emanates from the lowest levels in an organization.” Eccles offers several techniques for utilizing strong management and a top-down power structure to implement rapid and comprehensive changes in an organization. It is important to keep in mind the changes are especially pertinent to for-profit organizations that must make change in order to survive economically.

Another type of change is change control. According to the Wikipedia definition, “Change Control is a formal process used to ensure a product, service or process is only modified in line with the identified necessary change. It is particularly related to software development as during the early development of this engineering process it was found that many changes were introduced to software that had no obvious requirement other than the whim of the software writer. Quite often these unnecessary changes introduced faults (bugs) necessitating further change.” (http://en.wikipedia.org/wiki/Change_Control) In this change process, individuals play a more prominent role than they do in typical systemic change. In change control, there is a “change initiator” or individual who decides a change is necessary. The change initiator appoints a “change administrator” to oversee the changes and determine when the change is complete. The change administrator selects a “change owner” to oversee the entire change process from beginning to end and appoints the “change manager” to carry out the change process. The “task owners” are the people who are assigned specific jobs or tasks to carry out to assist in the change process. This change process seems to correlate very closely with the process used at ESU. The change initiator was actually the President of the university; the change administrator was the Provost; the change owner was the Vice Provost; and the change manager was the Interim Director of the UASC. The advising and support staff were assigned various roles as task owners.

Despite the lack of inclusion of advisors, support staff and students in the development of the change initiatives, the changes did get accomplished with less distress or resistance than I would have imagined. It only took a few months for adoption and acceptance of the changes. I suspect that the strategic change process used in this situation may be the type of change process the staff are accustomed to. It may be changes determined and implemented by administration have been

common throughout the history of this university and were therefore more readily acceptable to the stakeholders. It did appear the students were most likely oblivious to the changes. What prior experiences were available to compare these changes? Students who had not experienced academic advising did not know what to expect or what would be expected of them, and therefore did not know there were differences in the advising methods. The changes were made and adopted more rapidly than one might expect from a large system, which suggests an agile organization.

This study concluded in April and by September most of the change initiatives were implemented and accepted. It would be interesting to know whether or not the same acceptance would have been realized at a different institution. It will also be interesting over time to see if these changes are sustained and institutionalized and whether they make a difference on outcome measures. My gut feeling tells me the culture of the university where I work would not allow this kind of change to occur so easily without stakeholder input. My professional experiences with change in organizations indicate that although few people may be truly indoctrinated in systemic change, there is a sense of teamwork and collaboration preventing an administrator from determining the future of our advising system without great opposition. Even in these times of budget cuts and downsizing of organizations, my own experience is we often get an opportunity to examine our work and determine the best way to deal with these environmental influences over which we have no power. The culture and history of the organization, therefore, have a great influence on how the change process is perceived and ultimately accepted. In an institution where advising is respected and valued, my institution, the input of the advisers in a change situation would also be valued and respected.

Conclusion

It was difficult to stand on the sidelines and watch the good people at ESU go through this change process. They were not privy to information about the changes coming at the beginning nor were they given the opportunity to discuss their fears or their ideas about change. Many of them felt that their jobs were threatened and changes might never work. I believe the new director did eventually help them feel comfortable with the changes, though the staff had to experience much anxiety before this occurred.

The other difficulty I experienced relates to how these unexpected changes influenced the direction of the study. The original intention was to simply study the advising system using systems theory principals, a descriptive case study. When the changes to the advising system suddenly occurred in the beginning of the study, it was necessary to shift gears and incorporate change theory. This most likely, however, made the study more interesting for me. I was there to experience and observe the actual changes and I consider this to have been a privilege. How many researchers are actually present when a bifurcation point occurs in a complex social system? Many researchers are forced to study a phenomenon AFTER it occurs, but I was there for much of the change process.

It was impossible to remain an observer throughout this study and not get involved in the unfolding drama. The original director was a friend of mine before the study began. I knew of his work and his philosophy of advising before I went to ESU. The staff also knew he and I were friends. When he was fired, I was angry and hurt for him and his family and I also feared I would not be allowed to complete the study there. After a few visits, I had already been accepted into their advising community and so I was feeling many of the same emotions the staff felt. On days that I was visiting, the staff often included me in the after-work discussions about what had

happened and what it meant for everyone's future. I felt empathy toward the entire staff and wanted to be a part of their journey through these difficult times. They had nobody to go to for explanations or advice. They feared for their jobs and their own futures at ESU. Some felt loyal to the director who was fired. They had adopted his advising philosophies and techniques while others were quick to support the new director and her ideas for change. There was suspicion and mistrust among the staff, some of which was also directed toward me. I also felt loyal to the previous director and angry about the way the changes were dictated without input from any of the stakeholders. I suspect my feelings and loyalties were apparent. There were really three "camps" in the office during these tough times: one camp supported the old director and resisted change; the camp that maintained respect for the old director but felt that it was necessary to make the best of the situation and move on; and those who turned against the old director and sided completely with the new director. Though I spent time getting to know and understand all three viewpoints and all of these groups of people, I definitely resonated personally with the first group, those loyal to the old director and resistant to change. In fact, I have kept in touch with members of this group to this day. As a student of change, I feel my resistance was not to the changes themselves but to the change methodology and I feel that those I related with best during the study felt the same way. This study illuminated for me the importance of the process itself in implementing change and the fact that the changes being made aren't nearly as important as involving the stakeholders in the process. Jenlink et al. (1998) support my findings and feelings when they state that the potential for change lies in the journey, not in the destination and the change journey at ESU was a bumpy one at best.

Concha Delgado-Gaitan (1993) describes her experiences as an ethnographer in a Latino community in California in much the same way as I experienced my research at ESU. In order to

truly understand the community, the researcher must become a part of that community. By becoming a part of the community being studied, the researcher can be trusted by the community and participants are more open and honest throughout the study. What happens, however, to researcher objectivity when events at the research site require the researcher to become involved in the activities of the community being studied? In Delgado-Gaitan's study, Latino parents requested her assistance in empowering them to work more closely with the local school districts to assure their children received the best possible education. Delgado-Gaitan struggled with her response to this request to get involved and make changes in their community. She ultimately did become involved and felt that the researcher is often changed by the research and is compelled to become involved simply because of his or her membership in that community. The staff at ESU respected my experience and knowledge in academic advising and some of them came to me asking for my opinion about the change activities and how they should handle the situation. Most of the time, I simply let the staff vent and discuss their fears with me. However, there were times when my emotions were running high and my feelings for the staff and their trepidations were overwhelming and I shared my own frustrations and anxiety with them. I tried not to offer advice about how to proceed through the change process, but I feel certain that by simply listening to them and sharing my own angst influenced their feelings toward the change efforts.

While this was a difficult time to be involved in the study, it was also the most exciting possible time. I could not wait to get to ESU from one visit to the next. It was difficult to concentrate on my work in between visits as I was constantly wondering what developments had taken place in my absence. The changes occurred so rapidly, even with less than fourteen days between visits, I would walk in and find things completely different than they way I had left them on the previous visit. During one visit it might be painfully obvious that the staff was

hurting and then the very next visit would find the staff excited and moving forward. There were many ups and downs throughout the study and at times the tension was so high among the staff the feeling was palpable the minute I walked through the front doors.

I believe that using the Hutchins concepts for systems thinking made this study manageable and informative to my field of work in academic advising. I was able to understand systems theory much better by applying its constructs to a real-world setting. However, I completed this study with many questions about change theory. What is written about change theory makes sense to me, but what occurs in the real world is often far from the change theories recommended in the books. Yet change occurs and is successful without following the recommendations. I ask myself how the change process at ESU would have or could have occurred where I work. Would my colleagues have allowed the same process to take place with no input from us or our students? How is it possible within a few months of this place being turned upside down, everything was working fine and the staff were back on track implementing the changes? I suspect that the culture for change affected the results at ESU and the culture for change is different where I work and would have affected the results here. I believe the way leadership or administration functions at ESU is different than the way they function where I work. I get a sense teamwork, at least within the advising community, is more prevalent here than there. Staff input into decisions is expected here; staff involvement in determining programming directions is commonplace; staff are viewed as colleagues and professionals with expertise that is valued. I did not get the same feeling for staff support at ESU. Although money constraints are probably being felt in all of higher education right now, the money issues at ESU were more severe than where I work. The state government is struggling to stay afloat, industry is struggling to maintain

profits and the people are struggling just to survive financially. Decisions for change in academic advising were driven entirely by the bottom line.

It would have been ideal for this study to have continued for another year to help me understand better the change process that occurred and see the results of the process. Though I have talked with several staff members in the time since the study was completed, more time on location would be necessary to actually observe the changes implemented and determine their affects on the administration, staff, and students.

There needs to be more research into the field of systems inquiry and systemic change. There are several directions future research into advising systems could and should take. There is a need to document other advising models out there and these models must include all sub-systems with cross-functions in advising. Many institutions would be enlightened to discover where cooperation with other units occurs in their complex systems and where it does not. It would also be interesting to conduct a study in an institution re-designing its advising system using systemic change techniques to determine if the change process actually works in the real world.

Though there were times when this study took unexpected twists and turns, I was pleased with how well the systemic literature informed my research and how easy it was to incorporate systemic thinking into understanding of a complex academic advising system. Without the systemic lenses on, I'm sure I would have missed important aspects of the advising system at ESU. Although I did not enter into this research to qualify or judge the advising system at ESU, there were definitely aspects of the system I felt could be improved upon, particularly the physical plant and the staffing. However, I was extremely impressed with how well the staff compensates for these obvious shortcomings. The cooperation among various units serving students at ESU was amazing and to be commended. The vast changes were ultimately accepted

and incorporated into the advising system during and after my study, a testimony to the dedication and loyalty of the staff and their willingness to make things work for the sake of their students.

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APPENDIX A

Observation Protocols

Observation Sheet for Advising Interview/Appointment

Demographics

Advisor:

Date/Time of Observation:

Length of Advising Session (minutes)

Purpose for the advising session (student's presenting concern)

Year of Student: 1 2 3 4 5 6 7 8

Student Race: _____ Gender: _____

Content of Advising Session

A = Advisor initiated or raised S = Student initiated or raised

Exploring Institutional Policies

- college policies
- transfer credits
- advanced placement or exempting courses
- suspension, probation, or dismissal
- declaring a major

Providing Information

- content of courses
- financial aid
- other campus offices
- special academic programs (e.g. study abroad)
- internships or cooperative education
- job placement opportunities

Personal Development and Interpersonal Relationships

- personal values
- possible majors
- political and social issues
- career alternatives

- degree of major requirements
 - personal concerns of problems
 - evaluating academic progress
 - getting to know each other
 - extracurricular activities
 - the purpose of a college education
 - experiences in different classes
 - involvement outside of the classroom
- #### Registration and Class Scheduling
- dropping or adding courses
 - signing registration forms
 - selecting courses for next semester
 - planning a class schedule for next semester

Teaching Personal Skills

- study skills and tips
- setting personal goals
- time management

Other Areas:

Other areas _____

I. Nature of Advising Relationship

1. How does the advisor personalize the session? How does the advisor make the student feel comfortable?

2. How does the advisor help the student make decisions and share advising responsibility?

II. Outcome of the Interview

1. What was the final outcome of the interview? What was accomplished?

2. What referrals and/or recommendations were made to the student?

3. What was the student's reaction to the interview?

APPENDIX B

Interview Guides

Interview Guide for Academic Advisors

Interview #1 (past history)

How did you become an advisor?

Tell me about your past life up until the time that you became an advisor.

Interview #2 (current status)

Take me through a day in your work life.

How did you receive training for this position?

How do you stay up-to-date with current practices in this position?

Areas to explore:

- Relationship with students
- Relationship with other advisors
- Relationship with supervisor
- Relationship with support staff
- Relationship with staff in other units

Interview #3 (reflection/future)

Given what you have said about your life before you became an advisor and what you have said about your work now, how do you understand advising in your life? What sense does it make for you?

Where do you see yourself going in the future?

If you could, how would you change what you do here?

Interview Guide for Staff in Related Units

Interview #1 (past history)

How did you come to work here?

Tell me about your past life up until the time that you started this position.

Interview #2 (current status)

Take me through a day in your work life.

How did you receive training for this position?

How do you stay up-to-date with current practices in this position?

Areas to explore:

- Relationship with students
- Relationship with colleagues
- Relationship with supervisor
- Relationship with support staff
- Relationship with staff in other units

Interview #3 (reflection/future)

Given what you have said about your life before you became a (fill in the blank) and what you have said about your work now, how do you understand (fill in the blank) in your life? What sense does it make for you?

Where do you see yourself going in the future?

If you could, how would you change what you do here?

Interview Guide for Undergraduate Students

Interview #1 (past history)

Tell me about your past life up until the time that you became a student at ESU.

Interview #2 (current status)

Take me through a day in your life as a student.

When and why do you go see an advisor?

Areas to explore:

- Relationship with other students/friends
- Relationship with advisor(s)
- Relationship with family
- Relationship with support staff at advising center
- Relationship with staff in other units

Interview #3 (reflection/future)

Given what you have said about your life before you became a student here and what you have said about your life now, how do you understand what being a student means in your life? What sense does it make for you?

Where do you see yourself going in the future?

APPENDIX C
IRB Documentation

Letter of approval to conduct research from Penn State's Office of Research Protection

PENNSSTATE



Vice President for Research
Office for Research Protections

The Pennsylvania State University
212 Kern Graduate Building
University Park, PA 16802-3301

(814) 865-1775
Fax: (814) 863-8699
www.research.psu.edu/orp/

Date: June 11, 2003
 From: Jodi L. Mathieu, IRB Administrator
 To: Theresa K. Musser
 Subject: Results of Review of Proposal - Expedited (IRB #16006)

Approval Expiration Date: June 10, 2004

“A Case Study: Examining an Academic Advising System at a Large Institution Using Systems Theory Constructs”

The Social Science Committee of the Institutional Review Board has reviewed and approved your proposal for use of human participants in your research. **This approval has been granted for a one-year period.**

COMMENT: Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for this research.

Approval for use of human participants in this research is given for a period covering one year from today. **If your study extends beyond this approval period, you must contact this office to request an annual review of this research.**

Subjects must receive a **copy** of any informed consent documentation that was submitted to the Office for Research Protections for review.

By accepting this decision you agree to notify the Office for Research Protections of (1) any additions or procedural changes that modify the participants' risks in any way and (2) any unanticipated subject events that are encountered during the conduct of this research. Prior approval must be obtained for any planned changes to the approved protocol. Unanticipated participant events must be reported in a timely fashion.

On behalf of the committee and the University, I thank you for your efforts to conduct your research in compliance with the federal regulations that have been established for the protection of human participants.

JLM/slk
Enclosure

cc: Alison A. Carr-Chellman
 Department Head, Adult Education, Instructional Systems, and Workforce Education & Development
 Research Dean, College of Education

387217

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INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH

The Pennsylvania State University

ORP USE ONLY:
The Pennsylvania State University
Office for Research Protections

Approval Date: _____

Expiration Date: _____

Social Science Institutional Review Board

Title of Project: A Case Study: Examining an Academic Advising System at a Large Institution Using Systems Theory Constructs

Principal Investigator: Theresa K. Musser

Contact Information: 220 Grange Building, University Park, PA 16802

Telephone: (814)865-7576 Email: txm4@psu.edu

Advisor: Dr. Ali Carr-Chellman

Contact Information: 307 Keller Building, University Park, PA 16802

Telephone: (814)865-0624 Email: aac3@psu.edu

1. Purpose of the Study: The purpose of this research is to examine and describe an academic advising system at a large institution using the constructs of systems theory. The West Virginia University's advising system will be the subject for this study. Systems theory will inform the research by providing a framework for viewing how one sub-system is nested within many systems in the university and how these sub-systems interact with and depend upon each other. The result of this research will be a rich description and model of how an advising system relates to and depends upon other systems within the context of a university.
2. Procedures to be followed: Participation in this research will include completion of individual and group interviews which will be audio-recorded for future transcription. Tapes will be stored in a locked closet in a locked office at Penn State University. Only the principal investigator will have access to the tapes and all tapes will be destroyed by January 1, 2005. You may also be observed in your work to determine the techniques and methods you use to conduct your business at West Virginia University.
3. Discomforts and Risks: Participants may feel uncomfortable being interviewed about their work at West Virginia University. There are no other known risks or discomforts.
4. Benefits:
 - a. Participants may benefit from this study by gaining a better understanding of their own advising system and how systems theory and systemic research can be used to gather data and design assessment instruments.
 - b. The benefits to society include a better understanding of how change within a system affects many other systems in a larger "super-system."
5. Duration/Time: Individual interviews will take approximately one hour and group interviews will take 1-2 hours. You may be observed for 1-2 hours for a total of 4-5 hours of your time to participate in this study.

6. **Statement of Confidentiality:** All participants will be identifiable in the database by the principal investigator only. When data are analyzed and reported, all identifying indicators will be removed.
7. **Right to Ask Questions:** Participants have the right to ask questions and have those questions answered. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775.
8. **Compensation:** Participants will receive no monetary compensation.
9. **Voluntary Participation:** Participation is voluntary. Participants can withdraw from the study at any time by notifying the principal investigator. Participants can decline to answer specific questions.

You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

You will be given a copy of this consent form to keep for your records.

Participant Signature

Date

I, the undersigned, verify that the above informed consent procedure has been followed.

Investigator Signature

Date

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH

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Office for Research Protections

Approval Date: 11/17/03 – J. Mathieu

Expiration Date: 6/10/04 – J. Mathieu

Social Science Institutional Review Board

Title of Project: A Case Study: Examining an Academic Advising System at a Large Institution Using Systems Theory Constructs

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Contact Information: 307 Keller Building, University Park, PA 16802
Telephone: (814)865-0624 Email: aac3@psu.edu

1. Purpose of the Study: The purpose of this research is to examine and describe an undergraduate academic advising system at a large institution. The West Virginia University's advising system will be the subject for this study and the focus of this study will be on the processes, procedures, and services that are included in academic advising. Systems theory will inform the research by providing a framework for viewing how one sub-system is nested within many systems in the university and how these sub-systems interact with and depend upon each other. The result of this research will be a rich description of the advising system and how it relates to and depends upon other systems within the context of a university.
2. Procedures to be followed: Participation in this research will include being observed during an advising appointment and possible completion of an individual interview that will be audio-recorded for future transcription. Tapes will be stored in a locked closet in a locked office at Penn State University. Only the principal investigator will have access to the tapes and all tapes will be destroyed by January 1, 2005. You may also be asked to complete a follow-up interview.
3. Discomforts and Risks: Participants may feel uncomfortable being observed during an advising appointment and interviewed later about what advising means to them. There are no other known risks or discomforts.
4. Benefits:
 - a. Participants may benefit from this study by gaining a better understanding of the advising system at West Virginia University and the nature of the advisor/advisee relationship.
5. b. The benefits to society include a better understanding of how change within a system affects many other systems in a larger "super-system."

6. **Duration/Time:** Individual interviews will take approximately one hour each with the potential for two interviews. You may be observed for 1-2 hours for a total of 2-4 hours of your time to participate in this study.
7. **Statement of Confidentiality:** Responses will be kept confidential. A code number will be assigned to each participant and kept only in a master list for tracking purposes only. This master list will not be included in the database, but will be kept in a separate file. Only the researcher and the advisor will have access to this master list. Once all information is collected and all follow-up data are gathered, the master list will be destroyed. When data are analyzed and reported, all identifying indicators will be removed.
8. **Right to Ask Questions:** Participants have the right to ask questions and have those questions answered. If you have questions about your rights as a research participant, contact Penn State's Office for Research Protections at (814) 865-1775.
9. **Compensation:** Participants will receive no monetary compensation.
10. **Voluntary Participation:** Participation is voluntary. Participants can withdraw from the study at any time by notifying the principal investigator. Participants can decline to answer specific questions.

You must be 18 years of age or older to consent to participate in this research study. If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

You will be given a copy of this consent form to keep for your records.

Participant Signature

Date

I, the undersigned, verify that the above informed consent procedure has been followed.

Investigator Signature

Date

Copy of Letter Sent to Advising Staff from Director of UASC (originally printed on University letterhead and including real names) to introduce the research/researcher:

September 1, 2003

Dear University Advising Staff (titles will be adjusted for various participants),

This letter is an invitation to you to participate in a research project being conducted by Ms. Theresa K. Musser from Penn State University. The research study at [] University is being conducted in partial fulfillment of Terry's PhD requirements in Instructional Systems from Penn State. Terry is a member of the National Academic Advising Association and is a Sr. Undergraduate Studies Advisor in Penn State's Division of Undergraduate Studies.

The purpose of this research is to examine and describe the academic advising system at [] University. Systems theory will inform the research by providing a framework for viewing how one sub-system is nested within many systems in the university and how these sub-systems interact with and depend upon each other. The result of this research will be a rich description and model of how an advising system relates to and depends upon other systems within the context of a university. This will be a case study and will utilize interview and observation research methods, as well as focus group interviews and the nominal group process, to gather data. Terry will spend two days, every other week for one academic school year, at University to interview and observe representatives of all stakeholders associated with academic advising. Interviews will be audio taped and transcribed for review. The final analysis will include a summary of the common themes and ideas that represent all stakeholder populations. The final stage of this research will include focus group interviews about the findings to validate the researcher's observations and interpretations of the advising system.

If you choose to participate in this study, which will occur September 2003 – May 2004, you will be interviewed about our advising system for approximately one (1) hour in the fall semester and participate in a focus group interview in September and again in May for an additional two (2) hours. Terry may also ask your permission to observe you at work to gather data about how we conduct business. The total time commitment on your part will be approximately three (3) to five (5) hours. You may choose not to participate at any time throughout the study.

This research has potential benefits to all those who work in the field of academic advising. Advising administrators may gain a better understanding of how change within a system affects many other systems in a larger "super-system." The methods used to gather data in this study may possibly help others design evaluation and assessment strategies at their own institutions.

Sincerely,

James Robertsen, Ph.D., Director
Undergraduate Academic Services Center
[] University

APPENDIX D

Log of ESU Visitations

LOG OF ONSITE VISITS AND ACTIVITES AT EASTERN UNIVERSITY

Date	Itinerary
March 14, 2003	-traveled to ESU to make initial contact w/Director of UASC
September 11, 2003	-took official tour of Eastern State University offered by Admissions & Records -interviewed Dr. Robertsen -walking tour of downtown area
September 12, 2003	-staff meeting for me to be introduced to UASC staff and them to introduce themselves to me -presented my research plans via PowerPoint -staff signed informed consent forms -tour of UASC -attended staff training
September 25, 2003	-visited with staff support personnel and observed front desk operations -began informally visiting w/advisors and staff -interviewed Dr. Moore for advising history
September 26, 2003	-observed student records clerk and operations -observed staff training for freshmen/sophomore advising procedures -observed staff training on ESU's Gerontology program -observed staff training on ESU's Nursing program -informal discussions with advising staff -observed appointment scheduling operations
October 10, 2003	-met informally w/graduate assistants to discuss my research and get to know them better -observed freshmen/sophomore student advising training -observed staff training by Journalism program -observed training for advising student athletes
November 6, 2003	-interviewed 2 staff members (1 advisor, 1 support staff) -informally visited w/two advising staff members -set up future observations
November 7, 2003	-met with Dr. Robertsen -observed 1 staff (technology) -observed administrative assistant to the Director
November 20, 2003	-visited informally w/several staff to discuss changes that had occurred since my last visit -observed 2 advisor/student appointments
November 21, 2003	-observed graduate assistant complete file review -discussed file review procedures w/full-time advisor -observed staff training by Center for Black Culture & Research -observed staff training from Medical Tech Program -discussed freshman orientation program w/advisor in charge -interviewed coordinator of STEP, STAY and EXCEL programs
December 4, 2003	-talked informally w/Dr. Robertsen and one advisor -observed 2 graduate assistant/student appointments -observed 1 full-time advisor/student appointment -talked informally w/several graduate assistants and advisors about student behaviors and how they predict success
December 5, 2003	-observed staff training -observed 8 graduate assitant/student appointments
January 15, 2004	-talked informally w/several staff about new Director and changes being implemented -observed walk-in advising system for 1 st week of classes -observed 1 graduate assistant/student appointment

January 16, 2004	<ul style="list-style-type: none"> -talked informally w/several staff about changes in advising and changes in staff assignments -observed 2 graduate assistant/student appointments -interviewed staff member who supervises full-time advisors -observed front office operations
January 29, 2004	<ul style="list-style-type: none"> -talked informally w/administrative assistant -set up interviews for future dates -observed several advisor/student appointments
January 30, 2004	<ul style="list-style-type: none"> -interviewed new Interim Director of UASC -interviewed advisor in College of Business & Economics
February 12, 2004	<ul style="list-style-type: none"> -observed new group advising procedure -talked informally w/several graduate assistants and advisors
February 13, 2004	<ul style="list-style-type: none"> -interviewed full-time advisor -observed staff training for new advising procedures -observed training on Minority Doctoral Teaching Fellows Program -observed training of graduate assistants by their new supervisor
February 26, 2004	<ul style="list-style-type: none"> -observed full-time advisor/student appointment -talked informally w/administrative assistant -interviewed Director of Counseling Services
February 27, 2004	<ul style="list-style-type: none"> -interviewed 2 students -observed graduate assistant/student appointment -observed staff training from Director of Service Learning Program -observed training from new advisor supervisor about new processes and procedures being implemented
March 8, 2004	<ul style="list-style-type: none"> -informally discussed recent changes w/full-time advisor -interviewed Registrar from Admissions and Records -interviewed Associate Dean of College of Agriculture and his grad asst
March 9, 2004	<ul style="list-style-type: none"> -discussed informally w/full-time advisor the new procedures for advising that he implemented last week -interviewed Dean of Students -informally interviewed graduate assistant -interviewed full-time advisor
March 25, 2004	<ul style="list-style-type: none"> -interviewed graduate assistant -informally visited w/full-time advisor -interviewed student
March 26, 2004	<ul style="list-style-type: none"> -informally discussed changes w/advisor from Business & Economics -observed group advising in computer lab -interviewed Associate Dean of Physical Education
April 15, 2004	<ul style="list-style-type: none"> -observed graduate assistant/student appointment -interviewed student -interviewed Associate Dean for College of Engineering
April 16, 2004	<ul style="list-style-type: none"> -observed graduate assistant/student appointment -talked informally with many staff about ending my research soon & changes being implemented at ESU
April 29, 2004	<ul style="list-style-type: none"> -I brought PSU ice cream to everyone in UASC. -interviewed Director of Career Services -talked informally w/staff support person about personnel changes
April 30, 2004	<ul style="list-style-type: none"> - met w/administrative assistant and full-time advisor to discuss feelings about changes -met informally with staff in their offices to say good-bye
May 25, 2004	<ul style="list-style-type: none"> -telephone interview with Vice Provost
March 9, 2005	<ul style="list-style-type: none"> -telephoned administrative assistant and full-time advisor to ask how things were going
September 20, 2005	<ul style="list-style-type: none"> -had dinner with advisors from ESU attending advising conference at PSU

THERESA K. MUSSER
Curriculum Vitae

EDUCATION

PhD., Instructional Systems, 2006 - Penn State University
M.S., Agricultural Education, December 1993 - Penn State University
B.S., Agricultural Education, May 1979 - Penn State University

PUBLICATIONS

- 1997 Musser, T.K. "How to Use the Nominal Group Process to Solve Problems", 1998 *McGraw-Hill Team and Organization Development Sourcebook*, McGraw-Hill: Princeton, NJ.
- 1985 Coon, T.K. and Cantrell, J. "Agriculture in Black and White", *The Agricultural Education Magazine*, October 1985, v. 58, n. 4.

SELECT PRESENTATIONS

- 2005 "Using Learning Theories to Guide the Design of Web-Based Materials", National Academic Advising Association (NACADA) National Conference, Las Vegas, Nevada.
- 2002 "The First Academic Advising Contact: Developing a Successful Student Educational Planning Program", pre-conference workshop, National Academic Advising Association (NACADA) National Conference, Salt Lake City, Utah.
- 2001 "Using Research to Inform Practice", pre-conference workshop, National Academic Advising Association (NACADA) National Conference, Ottawa, Canada.

AWARDS

- 2005 National Academic Advising Association Outstanding Advisor Award
2003 Penn State University Excellence in Advising Award
2001 Phi Delta Kappa Andrew V. Kozak Award
1999 Phi Delta Kappa New Researcher Award
1997 National Academic Advising Association Scholarship

PROFESSIONAL MEMBERSHIPS

- National Association of Academic Advisers (NACADA)
- Regional Director (Mid-Atlantic Region), 1998 – 2002
 - National Council, 2002-2004
 - Diversity Committee, 2004-2006
 - National Board of Directors, 2006-2008