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A CASE STUDY OF FOUR YEARS DOCUMENTING THE CHANGES IN THE
PROCESS OF SELF-REPORTING ACADEMIC PROGRAM PLANS ALONGSIDE
THE PERCEPTIONS OF PROGRAM COORDINATORS

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Educational Research, Technology and Leadership
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ABSTRACT

Universities in the United States of America are faced with numerous challenges concerning quality assurance such as the quest for Continuous Quality Improvement. Implementation of technology has been a priority of many developing institutions of higher education. A large metropolitan institution of higher education has put into practice a technology based, on-line program quality assessment system, for its academic and administrative programs.

This dissertation was a study of the changes reported over four years, 2001-2005, within ten initial teacher preparation undergraduate programs at the College of Education at this institution. Using a mixed method approach, this study addressed the following primary questions:

1. Since the system was introduced;
 - a. Has the process of monitoring quality in the academic units changed?
 - b. If changes have occurred in the program plans, how have they been documented and implemented?
2. What are the limitations/benefits of the system, as perceived by its users?

This study is a case for its readers to understand the process of quality improvement as practiced in a college of education within a metropolitan university.

This dissertation is dedicated to my father, (Late) Umesh Kulkarni and to my mother Asha Kulkarni. It is through their blessings and love that I forever seek my spiritual support. I also dedicate this dissertation to my cousin Dr. Chandan Lakhiani and his family. Without their support, love and guidance I would not have been able to fulfill my dream of completing my graduate education.

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CHAPTER ONE: INTRODUCTION

Background

The "jewel in the crown" of an institution of higher education, is the quality of the professionals that it produces (Barringer, Kapp, Dankmeyer, Clark, Supan and Seabrook, 1993). As we inch forward steadily into the 21st century, it has become imperative that our teaching community is well prepared and equipped to succeed in teaching necessary content to the diverse and ever increasing learner population (Darling-Hammond, 2001). While institutions of higher education (IHE) are constantly developing their capacity to create and expand patterns of thinking and the abilities to learn how to learn, a common goal of IHE is primarily to attempt to incorporate a continuous and enhanced atmosphere of high quality learning within the educational culture (Freed and Klugman 1996).

According to Downey, the attitude seen across institutions of higher education during the 1980s was that students should be seen not heard. He identifies this sense of complacency by the higher education community during this period as analogous to what the American automobile industry experienced during the 1960s. During this time, the Japanese industry captured a significant share of the American automobile market with a contention that quality of a product is defined by customers (Deming, 1986). While the American automobile industry assumed it had a controlling market share, the Japanese leaders extensively employed quality assurance strategies to ensure customer retention (Downey, 2000).

Over the last few decades, institutional researchers and policy makers in higher education have focused their attention on quality assurance in the delivery of higher

education(Volkwein, 1999). In a report of the Twelfth Asian Regional Meeting of the International Labor Organization (ILO), concerns such as a decline in students' capabilities in terms of mismatch between their qualifications as reflected by educational level and their capabilities to perform the tasks, was reported (ILO, 1997). For over a decade now, the IHE in the United States have been challenged by an array of public policy issues, which include accountability; productivity; access; cost; and effectiveness (Volkwein, 1999).

The overlap of these public policy concerns is one of several reasons why the planning and implementation of systematized and systematic data collection and data management in IHE has become important (Luan & Willett, 2000; Serban & Luan, 2002; Volkwein, 1999). Various regional and national accreditation associations attempt to resolve public policy issues by requiring institutions to present evidence of student learning and growth as a key component in demonstrating the institution's effectiveness (Volkwein, 1999). The measurement of institutional effectiveness would reflect how well the institutional units achieve their stated goals and contribute to the institutional mission.

While IHE are constantly developing their capacity to create and expand patterns of thinking and the abilities to learn how to learn, a common goal of IHE is primarily to attempt to incorporate a continuous and enhanced atmosphere of learning and adaptation within the educational culture (Freed and Klugman 1996). Universities are developing methods used to support the delivery of high-quality educational services, and measures by which the quality of these services may be judged. In academics, traditional quality assurance measures are administered by activities such as:

- Continuous improvement initiatives to improve the quality of academic and non-academic programs, and student support services;
- A periodic response to feedback from students on program completion;
- Employer feedback to identify and ascertain the quality of program completers; and
- Program completer follow-up activities to track their professional status and perceptions about their respective program after having worked as professionals.

This atmosphere of accountability has given rise to an interest among stakeholders and institutions themselves to measure student learning outcomes (Beno & et al., 1994). As reported in the *State Issues Digest*, published by the American Association of State Colleges and Universities (AASCU), most state education leaders have indicated that an accountability system containing performance standards will have a positive impact on students (AASCU, 2004). The report also states that although federal legislations formed in order to improve the quality of education in US are rooted in a model of accountability, the emphasis for their compliance should be on the requirement for highly qualified teachers.

As reported in the Yearbook of the National Society for the Study of Education (2004), Title II of the No Child Left Behind (NCLB) Act of 2001 requires each state to ascertain that the teachers trained in core academic subjects are highly qualified by the end of the academic year 2005-2006. Such federal legislations have placed pressures on IHE by mandating creation of state standards to ensure production of highly quality educators (Plecki and Loeb, 2004). External mandates such as NCLB (2001) have

therefore served as a guiding hand for IHE to take internal measures in order to demonstrate evidence of improved student learning outcomes, in turn demonstrating its institutional effectiveness.

To address the external issue of accountability and internal initiatives to ensure quality of their candidates, many IHE prescribe to the guidelines and standards as directed by nationally recognized accreditation agencies. For example, as an institution preparing professional educators, the College of Education at the University of Central Florida follows the guidelines and standards as prescribed by the National Council for the Accreditation of Teacher Educators (NCATE) – at National Level; Southern Associations of Colleges and Schools (SACS) – at Regional Level; and Florida Department of Education (FLDOE) – at State Level.

While NCATE and FLDOE are approved by the US Department of Education as the professional accrediting bodies for teacher preparation, SACS is associated with professional accreditation of IHE in general. These accrediting bodies ensure that rigorous national standards in preparing teachers and other classroom specialists are followed by the teacher educators, thus acting as the profession's quality control system (NCATE, 2000). The external review and quality assurance process, therefore, provides the IHE with an objective evaluation of their programs.

While the IHE focus on goals to engage the learning community and enhance the atmosphere for all involved entities, there is a heightened curiosity towards identifying and understanding evidence of effectiveness in terms of instructional services and program models, suggesting that existence of adult education systems does not indicate an evidence of well-defined program models which have a strong research base

(Comings, Garner and Smith, 2002). The increasing culture of accountability leads us to seek the best practices to confirm that our current educational process provides future educators with well sculpted perceptions of the profession.

Some researchers may be of the opinion that self reflection should be the first step towards an effective learning organization, but self reflection primarily serves as a process to identify learning problems and provides short term positive effects (Huysman, 2000). According to the “Guide to Evaluating Institutions” using Accrediting Commission for Community and Junior Colleges (ACCJC), 2002 Standards, published by the ACCJC, self-reporting encourages monitoring of self performance and promotes reflective practice (ACCJC, 2005). Organizational quality improvement may however be more effective when it is perceived as a goal-oriented continuous learning process, providing a clear understanding of the perceived end result, instead of a directive with a clear end result by itself (Huysman, 2000).

Purpose of the Study

This study proposes to explore data pertaining to program improvement, gathered by a College of Education (COE) in a large metropolitan university. The COE gathered this data as an annual exercise for the purpose of reporting institutional effectiveness plans of the respective educational programs. This dissertation reviewed programmatic change(s) as documented in the program assessment plans of educational programs in the COE over a period of four years. It also studied and documented the effects of implementing an online reporting system, in terms of reporting program assessment

plans, as perceived by the program leaders. This study focused on the following primary tasks:

1. To review and interpret a selection of program assessment plans for five programs in the COE, of four academic years (2001-2002 to 2004-2005), pertaining to the program assessment system developed to facilitate continuous quality improvement; and
2. To document the perceived effect that this process of reporting academic program assessment plans has had on the academic programs at the COE.

Rationale

This study offered a perception of institutional research beyond its existing definitions, specific to the program coordinators of the academic programs within the COE. This research provided a report of the changes that have occurred within the programs studied, as they appear in the program assessment plans. It also provided a critical understanding of the processes involved in the program quality assessment system and for reporting the program outcomes at the COE.

The researcher was interested in the changes that may have occurred between academic years 2001-2005, among the educational programs at the COE. The report of the study was based on the interpretation and analysis of three sources of data: program assessment plans; interviews; and a focus group session. Based upon the analysis of this qualitative data, views and opinions of the participants pertaining to the system were reported.

Research Questions

The study was a case study of an IHE preparing professional educators. The case study documented the changes observed in the academic program assessment plans alongside the perceptions of program coordinators regarding the process of self-reporting institutional effectiveness plans. The following questions served as a guide for this research:

- a. What are the changes that have occurred in the program assessment plans, over the academic years 2001-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?
- b. How are the program assessment plans used by the program coordinators?
- c. Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?
- d. What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?

Statement of the Problem

SACS (1998) states in its criteria on Institutional Effectiveness, that “an institution must regularly evaluate the effectiveness of its institutional research process” (p. 20). The implementation of strategies to measure the effectiveness of universities have not yet been subject to externally imposed performance indicators; however this has been of interest among the community of practitioners (Volkwein, 1999). According to Volkwein (1999), there are few studies that measure the quality of institutions and

provide solutions to improve the institutional effectiveness initiatives. Most institutions rely on the opinions of highly qualified individuals through consultation and conferences, rather than through systematic study of the processes involved in the IHEs that are designed to enhance the institutional effectiveness (Volkwein, 1999).

According to Morris (1996), IHEs are viewed as being dynamic and therefore the principles of systems thinking are beneficial for improving the understanding of institutions and for reinforcing their equilibrium as institutionalized organizations. Systems thinking is primarily focused on understanding the dynamic elements of a system to enhance inter-element effectiveness rather than analyzing only the cause-effect relationships (Senge, 1990). Therefore, as opposed to a reductive approach, taking a systemic approach may better assist in the development of an understanding of various individual elements within a dynamic system. The systematic approach would provide a more complete synopsis of the various potential causes of concern, if any (Huysman, 2000).

According to Schmidt and Finnigan (1992), the design and implementation of a continuous quality improvement model to address institutional effectiveness, accountability and effectiveness policies is based on American organizational theories and management practice. One such theory is that there is an empirical connection between input measures and critical outcomes, especially when the outcomes are measured at critical process intervals (Volkwein, 1999). While this theory drives the need to measure and improve critical inputs (e.g. program effectiveness, strategic planning) and outcomes (e.g. academic achievement, organizational learning), it also allows

institutions to measure the effects of critical processes and therefore, make corrective interventions if and when deemed necessary (Volkwein, 1999).

Institutions need to maintain the quality of externally directed reports and internally guided self-assessments. Such activities critically rely on complex activities such as data warehousing and data mining (Luan, 2002). Due to the nature and the complexity of these activities, they may cause a potential situation of information overload and chaos within the institutions (Serban and Luan 2002). Untimely reporting of information or providing information in a haphazard manner to meet the requirements of an evaluation process may induce such a situation. Unintended outcomes such as misguided decisions followed by erroneous actions may result due to such chaos and therefore temporarily obstruct institutional growth. The focus on measuring outcomes without having any unintended effects during reporting of the data is desirable. Requirement of such an optimum assessment system within an organization has induced institutional interests to review alternative methods in order to minimize the potential impediments and to achieve maximum control on the perceived outcomes of the systems (Volkwein, 1999).

A part of the strategic mission of the university that houses the COE is to implement improvement in quality across all academic and non-academic programs within the university. The university has been using a program quality assessment system to attain its institutional effectiveness goals. The system aims for a consistent improvement in the quality of its programs that define future professionals. As a part of the university, the COE has actively participated in this initiative and adopted the

assessment model for ensuring institutional effectiveness and a high level of quality in its educational programs.

Supported by concepts such as “Systems Thinking” (Senge, 1990), this program quality assessment system has a strong theoretical basis. According to the theory of systems thinking, a system can be thoroughly examined or understood only through close examination of every sub-unit of the system that contributes to its system-wide functioning (Senge, 1990). According to Senge, it is critical to understand the relationship between these sub-units, regardless of their size or level of contribution to the overall functioning of the system. The concept of systems thinking allows IHE to understand their units with a broader view, looking at multiple interactions between and within units (Senge, 1990).

According to the description of the quality assessment process provided by the university, during a given year, faculty and staff of a specific program create an effectiveness plan pertaining to their program and implement the plan. The data is collected as outlined in the program assessment plans. During this year, the results of the previous assessment is reported, following which the program effectiveness plans are revised. This process includes an annual submission of an assessment report, on the university wide online system. This report includes the following components:

- Results of the previous year's assessment;
- Proposed or actual changes based on these results; and
- A new assessment plan to measure the impact of these changes.

The program leaders then generate/compile the plans with their respective program faculty/colleagues by completing a web-based form provided by the university

office. The format of the program assessment plans is based on the web based form which has been developed by the members of the university and the committees of all colleges within the University. The web-based form to generate the program plans is given in Appendix 'A' and a sample plan is provided in Appendix 'B'.

The plans are received by the college level assessment review committee. If improvements are deemed necessary, the plans are returned to the program coordinator(s) for change(s). Each academic unit is encouraged to continuously collect data and modify policies and procedures to meet its objectives. Once a data collection cycle (typically one academic year) ends, each unit or program analyzes and aggregates the data and reports into the system. This compressed cycle also allows the units to concentrate on improvement and shows how results lead to action and continued evaluation and improvement. A data set of these annual plans is available over an open database system, housed on the university servers.

Definition of Terms

Program Assessment: Assessment is a systematic method of gathering, analyzing and using information from measured outcomes to improve institutional objectives. In this study, program assessment focuses on what and how an educational program is contributing to the learning, growth and development of students as a group rather than on an individual student.

Program Assessment Plan: The assessment plan identifies, develops and carefully articulates the program's mission, goals, and outcomes. Additionally, it provides a range

of the outcome targets and the assessment methods to measure the outcomes of the academic programs.

NCATE - National Council for Accreditation of Teacher Education: Through the process of professional accreditation of schools, colleges and departments of education, NCATE works to make a difference in the quality of teaching, teachers, school specialists and administrators. NCATE believes every student deserves a caring, competent and highly qualified teacher.

SACS - Commission on Colleges of the Southern Association of Colleges and Schools: SACS is the recognized regional accrediting body in the eleven U.S. Southern states (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) and in Latin America for those IHE that award associate, baccalaureate, master's or doctoral degrees. The Commission on Colleges is the representative body of the College Delegate Assembly and is charged with carrying out the accreditation process.

Limitations and Benefits

According to McConney, Rudd and Ayres (2002), there has been a steady increase in the supporters of the use of mixed-method approaches. At the same time however, using mixed methods is also deemed a challenge, especially for the processes of data analysis and representation synthesis (Jick, 1979; Mark and Shotland, 1987). This dissertation had limitations in terms of external validity (generalizability). Due to the fact that the studied program plans belong to the academic units of COE, these plans are unique to the distinctive functions and characteristics of the respective units and the

findings of the study may not be generalizable. Also, the study provided a report of the programmatic changes as observed in the reported program plans.

As addressed earlier, the practice of self-reporting guides and promotes evaluation of self performance and inculcates reflective practice. Although it is a first step in planning a comprehensive program, self-reporting, by its nature may be biased (Stewart & Elisa, 2002). According to Carlsmith et. al. (1976) and Popham (1993) as cited in (Manthei, 1997), self-report instruments are commonly used to evaluate training programs; however, programs may find it very difficult to engage in critical self-report (Stewart and Elisa, 2002). The existence of an instrument, such as the web-based form used consistently by all program units to report program plans in the program quality assessment system, may assist to alleviate the interference of self-report bias.

According to the handbook of assessment published by the institution, the primary goal of the program quality assessment system is to continuously improve and maintain high quality in educational programs at the institution. Therefore, the program plans generated/designed using the instrument (web-based form) to address the goals of this assessment system, validates the reporting format of the plans as an indicator of program quality. However, since the instrument used to validate the program quality is pre-designed and the researcher has no control over its design, the internal validity of the reporting format, including question wording, is limited. To ascertain the internal validity of the design, in terms of content and construct validity, this study maintained the scope of the intent in terms of reporting the changes as observed through available documents and as determined through the focus group analysis.

Assumptions of the Study

The study was conducted under an assumption that the program assessment plans, submitted by the academic units of the COE to the university administrative personnel, are the representation of the intentions of the program coordinators and the faculty of the respective programs in the College. The assessment of the descriptors and program characteristics will provide the COE with a clear understanding of the state of a purposive sample of sub-units within the system (COE). The information that the readers of this study gather will be non-evaluative and therefore will not provide any formative suggestions.

It was assumed that the information gathered through the interviews and the focus group session is credible and accurate. The scope of the data that is gathered through such data collection methods is limited in terms of its completeness due to its tacit nature. Moreover, the assessment plans of a specific program may be created by a program coordinator different from the one currently assigned. Therefore, this study may not present the researcher with complete knowledge due to a loss of organizational memory during the shift in leadership. Due to this pre-existing irregularity in such cases, the data gathered through the responses of the participants of this study provides simply a reflection of the program plans as perceived by present program coordinator.

Also, the data gathered in this study is over a period of five years. This significant lapse of time supplemented by the tacit nature of the knowledge involved in this process further limits the accuracy of the participants' responses. Although the researcher attempts to retrieve tacit knowledge from the program coordinators, information retrieved may not provide an absolute understanding of the process(es) causing the observed

changes. This study therefore assumed that the information provided the researcher with an accurate account in terms of ‘change’ within the selected academic program assessment plans.

The researcher acknowledges that there may be several factors, external to the data gathered, that may contribute to the changes observed in the program plans of the academic units. However, this case study is not an attempt to evaluate any components of the academic programs or the changes as observed through the program assessment plans. Therefore, in order to ensure the validity of the study, the researcher will acknowledge the external factors if/as observed and indicated by the program coordinators.

The information gathered and thus reported through this study is not intended to evaluate the effectiveness of any component within the system or the educational programs. The study attempts to document the perceived goals of the system as it functions in a large metropolitan university, the observed changes over a period of four academic years and the perceptions of the program coordinators with regards to the perceived goals of the system and the changes in the program assessment plans as observed.

Summary

Chapter one contains the introduction, purpose of the study, the rationale for conducting the research, and the limitations and assumptions surrounding the design of the study. IHE conduct in-depth reviews of their academic and non-academic programs periodically. These reviews are conducted either to comply with the external demands of

accrediting agencies or internal initiatives such as to improve the institutional effectiveness in terms of its overall quality.

Academic programs are reviewed to examine their quality and productivity in terms of institutional objectives such as improving student learning outcomes. To accomplish this goal the faculty members of the academic programs in the COE complete self-assessments of their programs that then undergo an external review and an administrative evaluation. Understanding the changes that have occurred among the various academic programs would provide a primary analysis of the perceived effect(s) of the system on the programs.

Many factors can be attributed to successful student outcomes and the success of an academic program. A comprehensive program planning system that facilitates an environment of continuous quality improvement can be one of the significant factors. Although a system may be implemented at administrative levels in the institution, the ability of an innovation to achieve its objective(s) is highly dependant on the perceptions of the users of the system, in terms of the potential of the innovation to serve its perceived goal(s) and its ability to address the user concerns (Hall, 1978).

This study attempts to understand the changes as observed within the program assessment plans and documents the perceptions of the program coordinators with regards to the relationship between the changes observed and the process(es) followed by the coordinators to generate the program assessment plans. The study documents the processes involved in generation and implementation of program assessment plans. It will be a non evaluative study which will simply provide a detailed descriptive synthesis of

the programmatic changes and the perceptions of the program coordinators. Chapter two will present a detailed synthesis of previous literature pertinent to this study.

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

As a result of consumer revolution after World War II, most western societies saw a radical change in the way their population viewed the ownership of education and developed expectations from public service institutions (Neuberger, 2005). Because of this, academe has shifted roles from being a service provided by qualified individuals to become a product purchased by aspiring students (Luan, 2000; Luan, 2002). The concept of accountability has surfaced as a recognized need in formal and informal organizations over a number of years (Normore, 2004). Educational organizations have also experienced the need to demonstrate accountability (Abelmann and Elmore 1999; Banfield, 1992; Becher, 1983; Earl, 1995, 1998; Eisner, 1991; Fagan, 1995; Leithwood, Edge and Jantzi, 1999; Wagner, 1989; Watts, Gaines and Creech, 1998).

With an understanding that ‘accountability’ is the driving force for institutional research and assessment of program effectiveness (Volkwein, 1999); this review of the literature describes various components of accountability that will guide this research study in order to understand the characteristics of a competent and coherent assessment system for continuous improvement in academic program effectiveness. The primary concepts to be addressed are: 1) Educational accountability and its analysis as a process; 2) Teacher preparation guided by accountability concerns; 3) Quantification of effectiveness and evaluation of teacher preparation programs; and 4) Research methods and implementation models to enhance program effectiveness. Additionally, the review

will address use of technology to enhance the effectiveness of innovations implemented for program evaluation initiatives.

Educational Accountability

Literature in education provides varied definitions of the concept of accountability (Taylor and Beeman, 1992). According to DeMont's theory of educational accountability, the system of accountability may be optimally implemented only when the individuals in an organization are committed to meeting the diverse needs and individual goals of the stakeholders (DeMont and DeMont, 1975). Their theory has provided the academe the tool to maintain its distinctiveness and integrity (Demirag, Dubnick and Khadaroo, 2005).

Often interpreted as a responsibility for providing an account of one or many activities to the stakeholders, the Southern Association of Colleges and Schools (SACS) suggest that accountability in its simplest of terms can be a complex concept involving a host of complex relationships (SACS, 1998). While in its basic state, accountability is a concept involving systematic procedures of providing an account for actions (Normore, 2004); in its complex state, the process also may include intricate concepts such as integrity, thoughtful and principled judgment, rigorous application of requirements and a context of trust (SACS, 1998).

The degree to which accountability exists depends on whether or not the form of accounting selected, and the manner in which the agent is expected to be accountable, is suitable for the purposes that the accountability process is meant to serve (Blasé, 1997; Church, 1995; Demont and DeMont, 1975; Fullan, 2000). Questions concerning, why, for

whom, in what manner, and under what circumstances, are identified as essential to understand the implications of educational accountability and to determine the forms and functions of the process (Demirag, et. al., 2005; Normore, 2004).

Accountability: A portal for ‘critical thinking’

With increased focus on educational accountability (Volkwein, 1999), it is important to recognize the need for evidence as essential to the process of adoption and adaptation of what works (Zlotnik and Galambos, 2004). Earl (1998) deems accountability to be “dual-faceted”, in the sense that, while on one hand, ‘accountability’ serves as a tool to make data driven decisions; on the other, it promotes emancipatory learning which means learning through introspection and self awareness (p.187). In either case, it helps to build knowledge about the nature and root causes of unsatisfactory circumstances in order to develop real strategies to change them (Thompson and Smith, 2005). This dual faceted nature of accountability provides stakeholders with the opportunity to reflect on accumulated data, and in turn provides them with the option of adapting to the established changes by judging subject quality and adopting the perceived changes.

Accessibility to information is recognized by many as a gateway to critical thinking (Mayo, 1997; Reynolds, 1999; Thomas and Glenn, 2003; Whitmire, 1998). According to Mayo (1997) critical thinking is concerned with encouraging ways of thinking and informed stakeholder participation to achieve a more equitable environment while challenging indoctrination. Moreover as higher education witnesses its transition to the information age, critical thinking has been deemed essential to life success (Thomas

and Smoot, 1994). For example, in a tri-state study conducted to ascertain the perceptions and sentiments of social studies teachers concerning the impact of the No Child Left Behind Act ("No child left behind", 2001) and issues associated with the state-level testing and accountability policy, teachers reported that attitudes of parents and administrators towards accountability have significantly become more rigid in terms of their expectations from school systems (Burroughs, Groce and Webeck, 2005).

A well established culture that promotes accountability and knowledge centered decision making, promotes social restructuring (Burroughs, et. al., 2005; Normore, 2004). However the process of accountability is implicit and may not interest those who are not related directly to the process (Kazandjian, 2002). According to Kazandjian, involvement of outcomes, explicit by nature and more readily observed, may assist in generating the desired impact for the activities that constitute the process. Awareness of explicit and tangible outcomes of the process of accountability may also give rise to a culture of ownership among the stakeholders. If the purposes, intentions, roles and expectations are clearly understood from the outset, the chances for successful accountability systems are enhanced (Ladd, 1996; Meyer, 1994).

Analyzing Educational Accountability as a Process

According to Heubert and Hauser (1999), an optimal educational accountability system, especially one designed for improving student performance, involves educators and parents as well as students. Kazandjian (2002) suggests that accountability can best be achieved through evaluative methods that are based on evidence. Educational researchers have proposed various models of evaluation methods. For example, according

to Armstrong, Boroughs, Massey, Perry, Sansosti and Uzzell (2002), the process of accountability is designed around five primary areas: 1) Level of accountability to be provided; 2) Who is accountable; 3) To whom are they accountable; 4) What are they accountable for; and 5) What are the consequences of the process.

Taylor and Beeman (1992) categorize the process of accountability at four levels based on the activities that are carried out: At Level 1, educational accountability can be addressed by describing the process and how it was implemented. At Level 2, one can account for educational process in an evaluative context, by accounting for the extent to which the process was implemented based on the plan. At Level 3, the product may be evaluated by describing outcomes or impacts of the educational process. At Level 4, the product may be evaluated by comparing outcome or impact with the objectives and standards established in the program. Level 2 and level 4 provide critical information addressing specific congruence between input and output and between output and program objectives or standards established in the plans (and therefore the outcomes) making these levels more valuable for policy and decision makers than levels 1 and 3.

The Consortium for Policy Research in Education (CPRE) (1999) examined the problem of educational accountability from the internal perspective of schools rather than the external pressures designed to influence schools. According to this report, the process of educational accountability may be identified in terms of its characteristics, specifically the level of explicitness and the range of consequences associated with the process. Depending on its explicitness the process may be formal e.g. when written in a policy manual; or informal e.g. when communicated by an administrator to the staff. In terms of consequences associated with this process, it may be identified as *low stake* e.g. when an

administrator disagrees and expresses a difference of opinion with a staff member; or *high stake* e.g. when an institution faces severe criticism from a publicly approved accreditation agency (Abelmann and Elmore, 1999).

For the purpose of examining educational accountability as a process, Abelmann and Elmore (1999) studied 20 schools in the United States of America, located in metropolitan areas. Based on this collective case study, they classify educational accountability process into three types: Atomized, Collective and Internal. ‘Atomized’ accountability promotes accountability at an individual level. Here the educators define accountability entirely in terms of their sense of personal responsibility towards the students. ‘Collective’ accountability promotes a culture of following a strict regimen based on a prescribed set of standards or collective expectations which influence the perspectives of the educators. While ‘Atomized’ accountability promotes a self-guided sense of responsibility and ‘Collective’ accountability is strongly influenced by external standards and directives, ‘Internal’ accountability system emphasizes operations in the context of external policy, while at the same time, not holding educators accountable for lack of standards in their curriculum. Although there is no evidence of a successful educational accountability system whose success has been documented by credible research (Hauser, 1999 as cited in Darling-Hammond, 2004), the presence of individual responsibility and collective expectations within the local educational system, may potentially provide significant support to external policies and mandates (Abelmann & Elmore, 1999).

Standards based Accountability

Educational accountability, as a top down policy strategy to promote student performance improvement is most common. Based on the theory of how the accountability systems work (i.e. how to manage public expectations and hold institutions responsible for their actions and decisions) educational accountability systems can be categorized into six types; bureaucratic, legal, professional, political, moral and market (Darling-Hammond and Ascher, 1991). They suggest that of these six categories bureaucratic system ensures schooling occurs according to a set of standards, such as course offerings, textbook selection, and curriculum, and is most usually followed.

With a common goal to improve student learning outcomes, recent educational reforms in the United States of America have been increasingly focused to develop a standards based education system (Darling-Hammond, 2004). However, the exact process necessary to establish a system demonstrating positive outcomes is less clear (Darling-Hammond, 2004; Normore, 2004). According to Herman and Dietel (2005), effective alignment of assessments to standards in terms of relevance, breadth and balance, contributes significantly to a successful accountability system. Relevance is the degree to which assessments match standards, breadth is the extent to which standards are measured by a set of assessments, and balance reflects the extent to which standards are prioritized in terms of relative emphasis.

Accountability models such as No Child Left Behind (NCLB) Act (2001), are rooted in a theory of action, a concept that describes values and assumptions about how change works and what is needed to make it happen (Armstrong et al., 2002). According

to Armstrong, this concept involves use of measures and indicators to inform the purposes of the model such as allocating resources, evaluating program effectiveness, holding various stakeholders accountable, and providing information on student progress. Although educational accountability models such as NCLB (2001) provide a set of measures and indicators that may assist decision makers in determining low performing schools and school systems, they promote the use of consequences to be assigned to specific achievements or deficits within the system (Armstrong, et. al., 2002; Darling-Hammond, 2004). When consequences are involved, the accountability system is labeled as high-stake.

Standards based educational accountability models, built on a foundation of reform to ensure student success, have been assessed by a growing body of research. According to the literature, policy strategies that promote high-stake system may affect student learning outcomes adversely, and may have negative consequences such as narrowed curriculum, increased drop-out rates and decreased student improvement (Burroughs, et. al., 2005; Darling-Hammond, 2004; Heubert and Hauser, 1999; Klein, Hamilton, McCaffrey and Stecher, 2000; Kogan & Hanney, 2000; Linn, 2000). High stakes policy strategies, such as NCLB (2001) and Title II of the Higher Education Act (1998), may also promote an environment of responsibilities for the intervention process by stakeholders, teachers, schools, districts and states (Armstrong et al., 2002).

The concerns for increasing educational quality have prompted a closer look all aspects of the education system, including teacher preparation and teacher education program effectiveness. Social researchers such as (Beeby, 1966) have indicated in the past that in order to improve the quality of education the educational level and the quality

of professional educators would need to improve. According to Beeby it is imperative that equal attention be provided to the overall process of teaching and knowledge acquisition for teacher candidates, in addition to simply focusing on increasing the number of teachers as a whole.

Teacher preparation under the Accountability RADAR

According to the academic literature discussed above, accountability is perceived as a tool for enhancing the quality of educational services and improving the ability of the professional educators to perform more effectively and efficiently. Research also confirms that quality of professional educators is a significant component of improving student learning outcomes and their overall academic achievement (Darling-Hammond, 2004; Neville, Sherman, and Cohen, 2005). However, contradictory findings are presented in the Addendum to a report presented by the American Association of Colleges for Teacher Education (AACTE), which states that the relationship between a teacher's degrees or coursework and student achievement was not uniform across subjects (Wilson and Floden, 2003). While students showed improved mathematics achievements in presence of a teacher with a degree in mathematics, there was no such achievement relationship observed in reading. According to this report, there was evidence to suggest however, that subject specific training for teacher candidates is a significant variable in teacher preparation.

A research report by the Association of California School Administrators (ACSA) states that the quality of a professional educator may be characterized by the type of teacher education, experience and certification, with all of these attributes equally linked

to student achievement (ACSA, 2001). According to a systematic review conducted by Rice (2003), teacher quality may be addressed as a collective attribute focusing on proficiencies in terms of experience, preparation of programs and degrees, type of certification, coursework completed in preparation, and teachers' individual scores on the teacher certification tests.

Decoding the vague concept of "highly qualified" is a challenge for the IHEs engaged in preparing professional educators. The reauthorization of Title II of the Higher Education Act (1998) defines highly qualified teachers as those who have state certification, holds a minimum of bachelor's degree, and demonstrates solid subject matter knowledge (U.S. Department of Education, 2002c). The complete definition of a "highly qualified" teacher is in Section 9101(23) of the Elementary and Secondary Education Act - Appendix A (IASA, 1994) and in Section 602(10) of the Individuals with Disabilities Education Improvement Act of 2004 - Appendix D (IDEA, 2004).

In a study to understand the impact of Professional Development Schools (PDS) on K-12 students, pre-service teachers, in-service teachers, university faculty, school reform and research, several professional characteristics of 'infinitely skilled teachers' were identified (Pritchard and Aness, 1999). These characteristics of highly skilled teachers include their capacity to be reflective about their practice, collaborative and willing to learn in order to improve, inquisitive, and involved in continuous inquiry about the effects of their teaching practice. According to Pritchard and Aness (1999) the PDS advocacy literature suggests that teacher education programs are designed to promote and develop these identified characteristics in teacher candidates.

To ensure the integrity and authenticity of highly qualified teachers, most IHEs follow teacher licensure standards that use competency based models (Lazarus, 2005). According to Lazarus, these performance-based models are often aligned with the standards set by national organizations for the preparation and licensure of teachers, such as Interstate New Teacher Assessment and Support Consortium (INTASC), and National Council for Accreditation of Teacher Education (NCATE). The INTASC standards suggest performance standards that define knowledge, skills, and dispositions of highly qualified teachers; NCATE designs its standards to ensure that colleges of education reform their programs to align with the INTASC standards. According to Thompson and Smith (2005), while IHEs scramble to meet the demands of revised state and national standards, they are also faced with policy mandates demanding more integrated knowledge base and instructional applications in teacher education programs. The pressures of quality assurance have induced a new level of scrutiny in IHE.

Although literature emphasizes the importance of highly qualified teachers, some research contradictorily suggests that teacher preparation and certification programs may not necessarily be producing these high quality teachers. According to a report provided by the National Dropout Prevention Center (NDPC) (1998), 59% of Massachusetts teacher candidates failed their basic skills and subject matter knowledge tests in the spring of 1998 (Duttweiler and McEvoy, 1999). According to Barnett (1998) as reported in the NDPC (1999) report, among the 27 states using the National Teachers Exam, teachers are certified and allowed to teach, even if they fall in the lower five percent of the passing candidates.

According to a report by the American Federation of Teachers (AFT), the standards-based performance assessment movement can demonstrate improvement in terms of its usefulness and effectiveness only if teacher candidates are provided adequate training, time and support in terms of access to necessary materials (AFT, 1998). Olson, (2000) however suggests that the implementation of standards across the IHEs is uneven and careless at times. The uneven implementation may also be attributed to the lack of training and access for educators in terms of the prescribed standards and requirements laid out by the national institutions such as INTASC and NCATE (Olson, 2000; Price, 1999).

Quantifying Effectiveness of Teacher Preparation Programs

The NCLB Act (2001) imposes accountability requirements on IHEs and prescribes a high stakes accountability design to a high degree of specificity (USDOE). Although accountability designs may set desirable targets and provide directions for success, without any availability and use of multiple measures to guide high stakes decisions teacher preparation programs may be less effective in terms of their quality and their ability to produce highly qualified teachers (Chester, 2005).

Effective teacher preparation is the key to the production and retention of highly qualified teachers (Andrew, 1997; Holmes Group 1986; as cited in Connor and Killmer, 2000; Goodlad, 1991). According to Dumas (1987) as cited in (Chambliss, 2003), focusing on continuous quality improvement (CQI) is essential in order to maintain and manage the quality of educational products and services. Grant, Kelley, Northington, and Barlow (2002) suggests that this process can be useful in almost any educational setting if

administrative support exists and if the personnel are have the ability and authority to contribute to problem identification. Therefore, the on-going assessment of teacher preparation programs is extremely critical for their continuous growth and overall improvement (Connor & Killmer, 2000).

In 1986, The National Board for Professional Teaching Standards identified the requirements of high quality professional educators, and created certification standards. According to the AACTE (2003) addendum to the report Teacher Preparation Research (Wilson, Floden, and Ferrini-Mundy, 2002), there is very little research that provides agreement on what counts as measures of effectiveness for teacher preparation. Although teacher retention, behavior and instructional practice, knowledge and skills, and student achievement form candidate variables, according to this addendum there are no satisfying measures for these outcomes.

Chester (2005), however, suggests that use of multiple measures may assist in evaluating program effectiveness. According to Chester, simply involving multiple measures in accountability designs does not improve the reliability and validity of high stakes decisions. Measuring the effectiveness of educational programs may need to be guided efficiently by the logical use of measures. The inferences drawn from the measures and the decisions made as a result may provide a more valid and reliable evaluation of the educational programs being measured, in turn ensuring the quality of candidates completing the programs. Program designs that do not follow logical measurement to guide high stakes decisions are based on a model of limited effectiveness, have low decision consistency, and are likely to have unintended consequences that are not constructive in the long run.

Under an ever increasing culture of accountability (Volkwein, 1999), measuring effectiveness of teacher preparation programs is a critical yet difficult task. In an attempt to understand the consequences of using multiple measures of effectiveness to evaluate the validity and reliability of an educational system design, Chester (2005) studied the accountability system of the state of Ohio. The results of this study suggest that although use of multiple measures alone is insufficient to enhance effectiveness of a system's design, their use helps to improve the acceptance and legitimacy of programs, and thus promote desired outcomes. Therefore the use of multiple measures to evaluate effectiveness may enhance the validity and classification consistency of the inferences gathered.

Evaluation of Teacher Education Programs

One implication of the relationship between student achievement and teacher competence is that, in order to ensure the presence of high quality characteristics in K-12 teachers, the quality of academic programs that prepare the teachers need to be exceptional (Wilcox-Herzog, 2002). Quality of teacher preparation programs within most colleges of education is evaluated by accrediting agencies such as NCATE (NCATE, 2000). Policy makers are now focusing on knowledge, skills and dispositions required today of professional educators (Christy, McNeal, and Chesser, 2003). With this reality guiding the process of preparing educators, IHE must now respond to accountability concerns presented by the state and federal mandates, as well as the stakeholders (Ewell, 1998; Dodd, 2004; Volkwein, 1999).

Since the reform of National Council for Accreditation of Teacher Educators (NCATE) standards based model for accreditation in the year 2000, there has been a shift from a self-reporting model to an outcome based performance assessment model. With this reform, colleges, ins addition providing evidence that their candidates have gained the knowledge and skills required for becoming professional educators, will also measure and assess their candidates' dispositions (NCATE, 2000).

Because of such reformed notions of the evaluation of program effectiveness, the accreditation process has taken a critical turn from being a simple self study model to a more complex evaluative process. Moreover, with the NCATE-2000 emphasis on evaluating and assessing dispositions, accreditation has entered the territory of virtue-ethics (McKnight, 2004). As the face of accreditation changes so do the needs of IHE and the level of involvement of personnel. Instilling a self assessment culture to ensure institutional quality in terms of professional credibility at all levels, and the pressures of quality assurance through accreditation, have induced a new level of scrutiny in IHE.

According to Wilcox-Herzog (2002), data gathered from follow-up surveys of education program completers may be used to assess the strengths and weaknesses of any teacher education program. According to a survey study conducted by Wilcox-Herzog (2002), program completers not only provided insights into the strengths and areas of concern of teacher preparation programs they completed, but also suggested several specific actions for improvement.

In a similar study undertaken to evaluate a "Preparing Tomorrow's teachers for Technology" grant, the extent to which teachers used technology during student teaching was determined (Klecker, Hunt, Hunt, and Lackner, 2003). According to this study, a

quantitative analysis provided an identification of competency levels using different technologies, and a qualitative analysis identified the areas for further training. The study provided a needs analysis based on the Kentucky state and National Education Technology standards for technology integration. The aspects of technology that the teacher candidates need to be able to know and use as professional educators were identified from the perspective of teacher education faculty.

Insights to enhance effectiveness of teacher preparation programs need not always be a linear process and may require sources other than inputs provided by program completers. Continuous monitoring of the programs usually carried out by education faculty, gathering inputs and judgments of employers who hire program completers, and determining a relationship between those judgments and the insights of the completers they supervise, may also provide significant data to improve the effectiveness of teacher preparation programs (Wilcox-Herzog, 2002).

Evaluators of teacher education programs have used various methods of assessment. Wilcox-Herzog (2002) and Klecker et. al. (2003) performed program evaluation of teacher education programs using qualitative and quantitative methods. Researchers such as McDaniel (1997), Lipscomb and Doppen (2002) examined the perceptions of beginning teachers through a case-study design. Flecknoe (2002) performed a 'realistic evaluation' (Guba and Lincoln, 1989) of the effectiveness of a professional development program for teachers using a case study design. Koppich and Merseth (2000) performed a cross-case analysis of seven case studies about teacher education programs. This analysis provided characteristics of the individual cases that accounted for their individual successes as learner centered programs.

Research Methods to Evaluate Program Effectiveness

A typical challenge that institutions often face is identifying assessment information that may exist outside the college. A system that provides a detailed assimilation of student data gathered at an institution may provide an understanding of how information is collected, analyzed, stored, and used (Mittler & Bers, 1994b, as cited in Cress, (1996)). The key to being able to measure anything is to establish a baseline of the institutional current condition at a given time (Rieley, 1997). Availability of student data of various types such as, high school grade point averages (GPA), scholastic aptitude test (SAT) scores, and individual student assessments of education foundation courses, may assist in establishing baselines of student information and provide initial scholastic characteristics of students to better assess the outcomes.

Conventional wisdom suggests that the choice of data collection techniques for measuring program effectiveness should vary depending on the indicators being measured and the issues being evaluated. While quantitative methods provide a numerical assessments of measures that may help the evaluators understand the differences between or significance of relationships between variables, using qualitative forms of assessment may be employed to complement or challenge the interpretations of the numerical data (Cress, 1996). Using mixed research methods (qualitative and quantitative) has several benefits such as, use of multiple perspectives; strengthening inferences drawn from the data through document reviews; meaningful tracking of program implementation through personalized interviews and group discussions; exploration of models and validations of important program outcomes through extensive case studies.

Tennessee Technological University (TTU) used a longitudinal quantitative model for systematic data gathering and for evaluating its teacher education programs. This system measures program objectives, provides information for those making decisions about curriculum evaluation and development, and assists in the program planning (Ayers, 1986). According to a follow up study conducted in the following year, (Ayers & et al., 1989) found that because of the program evaluation conducted at TTU, the teacher preparation programs developed new study modules in the elementary and early childhood education programs, made major changes in the historical and sociological foundations of education courses, and introduced more educational technology into the undergraduate teacher preparation curriculum.

Use of quantitative methods in program effectiveness evaluation may produce interpretations that are likely to be understood by most audiences (May, 2004). According to May, differences or relationships between program entities or program groups are often of key interest and are usually represented with regression coefficients or differences in group means. While demographic information may be analyzed using simple descriptive statistics, more relational statistics may be used to report differences of relationships. May (2004) also suggests that use of models following quantitative methods may assist in program evaluation due to their ability to enhance understandability, interpretability, and comparability of the data sets and the inferences drawn from them.

Although the inferences derived from qualitative methods are difficult to generalize (Erickson, 1986; Rossman and Rallis, 2003; Tashakkori and Tedlie, 1999; Yin, 1994; Stake, 1995); factors that influence outcomes can be addressed and evaluated

using techniques such as interviews, focus groups and participant observations (Rossman and Rallis, 2003; Yin, 1994; Stake, 1995). Direct involvement of faculty members may allow an exchange of dialogue between them and assist in sharing what they perceive to be effective or ineffective practices (Mittler & Bers, 1994b, as cited in Cress (1996)). According to them, exit interviews and alumni surveys as forms of data collection methods to assess program effectiveness for programs and services at Oakton Community College in Illinois.

The use of case studies to evaluate program effectiveness is also a commonly used research method to evaluate program effectiveness (McDaniel 1997; Lipscomb and Doppen, 2002; Flecknoe, 2002; Koppich and Merseeth, 2000). Case studies may prove instrumental when data exists in both qualitative and quantitative format. Information such as program impact on teacher candidates, identification of conceptions of teaching embedded in the teacher education program and indicators of program quality may be determined. May (2004) suggests that alternative methods to present traditional statistical information should be considered as these methods may provide better presentation of information in the context of program effectiveness evaluation.

The following section looks at the various implementation models as employed by various institutions in the United States of America to enhance program effectiveness of academic and non-academic programs. A review of such multiple implementation models may allow a set of benchmarks to assess the significance of the model that this study attempts to examine.

Implementation Models for Enhancing Program Effectiveness

Data may be used both to illustrate how attention to critical academic objectives may improve student achievement, and to show where the programs need improvement. The Center for Educational Accountability (CEA) at the University of Alabama, Birmingham, conducted an evaluation exercise to assess program effectiveness of the Alabama Reading Initiative (CEA, 2002). According to this report, an initiative to improve student achievement in reading used both qualitative and quantitative data to measure program effectiveness. As reported in the executive summary of the evaluation report by (O'Neal & Spor, 2002), the evaluation was carried out from an internal/external perspective. While an external evaluation team analyzed, and interpreted the data to ascertain the integrity of the findings; an internal team participated in the design development and execution of the evaluation plan.

According to Kater and Lucius (1997) as cited in Van Van Kollenburg (1997), some instructional program evaluations in IHEs often may proceed along a multi-phase cycle of assessment activities. They state that, such program assessment typically begins with plan development that usually considers measurement mandates, affected programs, and personnel involved. The plan of action is then matched with participants, instruments, procedures and testing designs. In the implementation phase, testing methods are employed to gather data to be analyzed, interpreted and applied. The results are then summarized, distributed and put to use for further improvement or new developments. Application of such schematized assessment activities may improve program, however, assessment of program effectiveness still challenges IHEs logistically and conceptually.

In response to an institutional effectiveness initiative at the Wisconsin Technical College, the Milwaukee Area Technical College implemented an assessment plan, to improve the quality of academic achievement of students within their programs, courses and activities (Carter and Burrell, 1997 as cited in Van Kollenburg, 1997). The components of this assessment plan are based on the Continuous Quality Improvement model - Plan Do Check Act model. This model was modified as “Plan, Teach, Analyze and Adjust” components of courses and programs. Embedded in the plan are the requirements for higher expectations of students, clear competencies for courses, use of multiple assessments, and reflection and adjustment of components developed for academic success.

Hamilton College in Iowa developed an assessment plan specifically in line with their institutional strategic plan (Campagna and Throne, 1997 as cited in Van Kollenburg, 1997). The assessment plan was well scoped and reflected the institutional mission and purposes, although it did not have a cyclic improvement nature that had a direct impact on the institutional decision-making structure. To address this shortcoming in evaluating the academic programs, the assessment plan was changed from a collection of complex assessment matrices to an assessment cycle of activities that followed this sequence: gathering results – analyzing results – sharing results – using results – evaluate/revise tools – administer tools. The use of results from assessment activities were emphasized through attainable annual and quarterly report cards for all institutional departments; which also provided a gauge for measurement of institutional change.

Interpretation of data sets through commonly used analysis methods may at times fail to illuminate a causal relationship(s) among data sets. Roweton (1997) as cited in

Van Kollenburg (1997), states that factors like the teaching skills and knowledge of faculty, and classroom resources contribute equally towards student achievement. These factors must be evaluated along with common quality indicators such as instruction and student achievement to evaluate program effectiveness. Roweton suggests that data analysis and interpretation is simple when compared to analyzing assessment-team comments and audience discussion, and while straightforward data interpretation may be elusive at times, it should be supported by analysis of such discussions, which may emphasize the relationship of ineffective testing designs and results that are difficult to interpret.

Washburn University follows a formal review system in which every program in the institution provides a self study to a central governing body (Cohen as cited in Van Kollenburg, 1997). Each self study includes 1) Program mission and its relationship to the mission of the University, 2) List of realistic goals and measurable objectives, 3) Examinations of the unit's procedures, 4) Explanation of the evaluation system being used if the goals are being achieved, and 5) Strengths and weaknesses of the unit as observed. The assessment system also includes an interview process of the unit leaders with the designated assessment leaders of the institution. The interview process provides insights in terms of the improvements that have taken place and causal relationships, if any, that should be addressed for ensuring effectiveness of the programs.

Use of student portfolios to assess program effectiveness is widely used by many teacher education programs. Portfolios provide these programs with a tool to view student learning and academic achievements, as they represent real performance, and therefore reflect the institutional effectiveness (Sparapani & et al., 1996). Trube and

Madden (2001) recommends the use of portfolios as a viable multidimensional tool for assessing pre-service teachers' capacity in terms of knowledge, skills, disposition and sense of self.

The portfolio system is a linear program evaluation process that assesses longitudinal records of students (Bergeron and Hus as cited in Van Kollenburg, 1997); and can provide a framework for meaningful and authentic program evaluation (Winsor and Ellefson, 1995). According to Olds and Miller, the advantages of using this system are, it: 1) does not intrude over classroom procedures, 2) allows examination of student work over time, 3) is deeply analytical, 4) allows feedback which is useful for summative and formative assessments, 5) enhances faculty involvement in the process, and 6) allows data based decision making that may ensure real changes in courses and programs. However the portfolio system lacks a feedback-loop system that could provide the assessment system with a continuous assessment process that makes effective and efficient use of data.

Another assessment used as a tool to assess program effectiveness at The North Central Bible College was "Appreciative Inquiry" (Tennnant and Anderson as cited in Van Kollenburg, 1997). Faculty of the college discussed development questions in group discussions which allowed faculty interaction and reaction. According to De la Ossa, (2005), this method of institutional assessment does not focus on changing the members, but rather invites people to engage in building organizations that the members perceive as desirable. Instead of determining what is missing or not working, the appreciative inquiry allows institutions to build upon their existing strengths (De la Ossa, 2005). Markova and Holland (2005) state that when attention is paid to what works, organizations may

demonstrate significant positive changes, than when compared to traditional interventions.

Traditionally college faculty have used course syllabi as a plan for delivery of course content. These syllabi contain specific pieces of information and are an integral part to a program of study. Madson, Melchert and Whipp (2004) conducted a study to analyze the usability of a syllabus analysis instrument designed to assist program evaluators, administrators and faculty to evaluate programs and identify the skills of the students as they complete their college coursework. The syllabus analysis instrument provided faculty with both formative and summative evaluation data. The instrument also measured the extent of change in this area of the curriculum after the program redesign.

According to Madson et. al. (2004), the use of syllabi provided useful information for program evaluation purposes since they often describe knowledge and skills that will be acquired through the course activities. A significant outcome of this study was that a syllabi design template was developed to improve program effectiveness in the institution, instead of developing syllabi in the programs. This ensured that the syllabi accurately described how individual courses contributed to achieving the overall program standards, therefore improving the overall teacher education program effectiveness.

Benchmarking is commonly used as a tool for program evaluation. In its briefing report, the Institute of Education and the Economy recommends the use of comparative assessment or benchmarking to identify standards of excellence while measuring or comparing similar subjects (Morton, 1993). According to this report the benchmarking process necessarily involves following steps: 1) identifying what to benchmark and establishing internal baseline data; 2) identifying the benchmark; 3) determining how that

standard has been achieved and comparing it to current practices; and 4) deciding to make changes or improvements to meet/exceed the benchmark.

A study at The United States Military Academy (USMA) in 1993, suggested that the process of comparative assessment produces data to substantiate the quality of graduates, as well as to quantify success (USMA, 1993). According to USMA study, benchmarking focuses on outcomes rather than processes. The process can then be applied to introduce alternative solutions as opposed to drastically accepting conventional systems. Because the process of benchmarking provides goal oriented and readily usable data, use of this process for enhancing program effectiveness may address the requirements of continuous program quality improvement (Wilmore, 1999). The requirement to be aware of the typical norms and changes in the external environment also makes the process of comparative assessment highly sensitivity to environmental changes.

Using a program level planning model, a strategy based upon decentralized decision making, also provides a comprehensive method for improving program effectiveness. Nelson and Heeney (1985) recommends the following stages of program planning and evaluation: deciding to plan or evaluate a program; defining the context of the issue; explaining the initial course of action; designing alternative causal impact models; matching alternative research designs with each causal impact model; expressing goals in measurable terms; collecting data based on the issues, policy, impact model, and research design; and analyzing, interpreting, and reporting data within the context of the issue. The recommended framework is not necessarily a stepwise procedure, although an interface between program planning and evaluation is recommended.

A cyclical assessment model to allow strategic program planning at the departmental level is recommended by Boyle et. al., 1997 as cited in Van Kollenburg (1997). Using this model, institutional departments periodically complete a detailed analysis, review and assessment of progress. According to Boyle et. al., the cyclical assessment model follows the Krakower's theory of four domains of institutional effectiveness. The four domains of institutional effectiveness are goal achievement; organizational climate; management processes; and environmental adaptation. While goal achievement and organizational climate domains focus on outputs and internal processes respectively, management processes and environmental adaptation address the organizational effectiveness to adopt and adapt respectively, in terms of the internal and external environment (Ewell & Lisensky, 1988).

Cyclical analyses include detailed statistical analysis of key success factors, review of progress on goals as well as ongoing departmental assessments and results. The use of a cyclical assessment model for enhancing program effectiveness allows faculty and administrative personnel to focus on a learner-centered approach. This program effectiveness model requires departments to relate their unit goals and objectives to the institutions goals and objectives of their programs and services. Focusing on ensuring this relationship between unit and institutional missions allow the departments to determine if they are adequate in terms of effectively addressing the current levels of strategies and outcomes Boyle et. al. as cited in Van Kollenburg, (1997)

Use of Technology Solutions

Every institution follows a system of shared meaning, values, beliefs, and mental models, commonly known as an organizational culture that distinguishes one institution from another and provides a sense of identity for its members. This culture may at times be ingrained among the members and this may in turn restrict their abilities to recognize a need for change. One way to avoid such a myopic environment is to ensure communication among the organizational members (Meredith, 1998). Optimal use of technology to communicate may enhance member ability to interact with each other and may promote a culture of virtual community within the institution (Smith, 1995).

Teacher education programs performance assessment systems have gained significant popularity and have been implemented to facilitate institutional activities such as learning, measuring student assessment and evaluation of academic programs (Crowe, 2003; Liu, 2003).

For example, the University of Maryland, Baltimore County uses an information system for learning and assessment (Xueguang and Roy 2005). According to them, the assessment system is used for continual review and renewal of assessment policies and processes based upon assessment results, feedback, and experiences have resulted in a series of program, curricular, and operational changes in the institution. The data collected through the web based system enables institutional learning in terms of improvements desired to meet the accountability requirements.

Performance support systems with an extensive support of hypermedia have been introduced in teacher education environment to support complex cognitive tasks such as lesson planning (Wild, 2000). Performance support systems provide users every element

required to complete a task therefore enhance the potential for improving the overall organizational productivity with a minimal external support and interventions. According to results of a study conducted to analyze the effects of performance support system in learning environments, users benefit primarily from participation in a complex yet supporting environment organized around a single goal (Brown, 1996).

According to Coppola (2004) as cited in Butche (2005), academic literature has greatly focused on how to apply technological solutions in academic/learning environments. Obenchain (2002) suggests that technological innovations in academic settings hold extensive and expansive opportunities for conducting operations in most effective and efficient ways. The potential of digital systems is only limited by the imagination and the abilities of its users (Butche, 2005).

Adoption and Adaptation of Technology Solutions

Technology provides an IHE a potential to “support and amplify” its efforts in becoming a learning organization (Jonassen, 2000, p.24). Effectiveness of activities such as data collection, critical thinking, problem solving and reflection is enhanced with the optimal use of technology (Jonnasen, 2000; Kozma, 2000). It is evident from academic literature that innovations such as modern computing and technology systems provide significant assistance to IHEs in enhancing effectiveness of their academic and non-academic programs (Littlejohn and Sclater, 1998).

Success with implementation of innovation is reached only when the innovations are embedded into the internal culture, transitioned successfully and led to overall enhancement of organizational conditions (Fullan, 1982). Regardless of its nature, an

innovation may not implement itself and simply spreading its anticipated importance among the users may not be enough to guarantee its successful implementation (Surry and Ely, 2001). Failure to consider the beliefs, attitudes, commitment and involvement of organizational members may prolong the process of adaptation and adoption, ultimately leading to implementation barriers (Fullan, 1982; Hall and Hord, 1987).

Academic literature has indicated that educators have widely exhibited reluctance towards adoption of technology (Anderson, 1993; Becker, 1994; Bereiter, 1994; Hooper and Rieber, 1995; Rogers, 2000). According to Willis (1992), socio-psychological variables such as: design variables inherent in technology, background of the educator, characteristics of support structure, organizational variables, and the diffusion model used to encourage the use of technology; are variables that to a great extent are responsible for effective adoption of technology at all levels in academia.

Rogers (1995) provides a theory of diffusion of innovations for analyzing the characteristics of adopters. According to this theory, the four main elements of diffusion are 1) innovation, 2) communication, 3) channels, 4) time and 5) social system. According to this theory, innovations lead to social change, and an optimum utilization and implementation of the innovation is highly dependant upon campus-wide planning and investment in the human infrastructure which includes training and support, which in turn capitalizes on institutional leadership (Jacobsen, 1997).

Penuel, Tartat and Roschelle (2004) identify four key barriers that may stand in the way of technology becoming widespread in a learning organization: access, pedagogical support, administrative encouragement, and perceived reliability. Rogers (2000) suggests that barriers to successful adoption of educational technology have

internal and external sources as well as sources that cross across internal and external. While teacher attitude or perception towards technology form internal sources; availability, accessibility of required technology (hardware/software), instructional and institutional support, and stakeholder development for skill building form the external sources. Lack of time and funding according to Rogers (2000) tend to cross over internal and external sources.

According to the results of two short studies conducted by Rogers (2000) to understand the barriers to technology adoption among educators, barriers to technology adoption is a complex balance and counter balance of several components. While external barriers are found to affect the level of adoption of educators at the beginning stages of technology adoption, attitudes and perception of individuals towards new technology are primary barriers towards adoption of any technology.

Knezek and Christensen (2000) developed a new predictive model of technology integration and classroom achievement. According to this model, technology integration can be predicted based on an individual teacher's self reported will (attitude); skill (competency) and access to technology. The model also suggests that technology integration can be a significant contributor to higher student achievement. Application of this model in school settings suggested that 40% of variance in stages of adoption was attributed to will; and the variance increased from 40% to 70% when skills measure was included as a measure of predictability.

Two Texas studies involving over 500 teachers from a large metropolitan school district used Concerns Based Adoption Model (discussed below) to assess the relationship between classroom technology integration and elementary school scores

(Christensen, Griffin, and Knezek, 2001). The results of this assessment indicated that there was a positive correlation between higher classroom technology integration and higher elementary scores specifically in vocabulary, reading and writing. According to Griffin and Christensen (1999), there is a strong correlation between Levels of Use and the Stages of Adoption. According to the findings, 40% of the variation in one measure can be explained in terms of the other.

Christensen (1997) provided a self assessment instrument to assess the stages of adoption for an individual teacher's ability to adopt technology. According to this self assessment, there are six possible stages of adoption: Awareness, Learning the process, Understanding and application of process, Familiarity and Confidence, Adaptation to other contexts; and Creative application to new contexts. If faculty is not at the stage of familiarity and confidence, the optimum use of innovation for program effectiveness will not occur.

Concerns Based Adoption Model

Fuller (1969) suggested that teachers, in their initial years of preparation, go through three developmental stages: a) non-concern, b) concern with self, and c) concern with others. Based on this concept, the theory of innovation and change, called Concerns Based Adoption Model (CBAM) was developed (Ward, West and Isaak, 2002). Hall et al., (1973) suggested that the three sequences of concern (self, task and impact) may also be observed when experienced teachers are faced with implementing innovations.

According to Berlin & Jensen (1989) as cited in Ward (2002), the theory behind CBAM posited that change was a process and not an event; change was better seen when

associated with individuals rather than institutions; individuals demonstrate different skill levels at different stages of the process (change); and effective facilitation of change meant addressing the specific concerns of individuals who were at different stages of the change process.

Griffin and Christensen (1999) developed a self assessment instrument 'Levels of Use', based on CBAM. This instrument provides 6 primary levels that a teacher may be associated with in terms of adoption of new technology: Level 0- Non use; Level 1- Orientation; Level 2 – Preparation; Level 3– Mechanical use; Level 4a – Routine; Level 4b – Refinement; Level 5 – Integration; Level 6 – Renewal.

Based on Fuller's (1969) theory of developmental nature of teachers concerns, Hall and Hord (1987) suggested that change is a process that follows a seven staged developmental sequence regarding the concerns that faculty have when an innovation is adopted. The three stages of concern (self, task and impact) were expanded into seven dimensions: Self - 1) Awareness of the nature of the innovation; 2) need for information; 3) personal concerns about innovation; Task - 4) Management of the innovations; Impact - 5) Concerns about the consequences on students; 6) Desire to collaborate; and 7) refocusing the innovation based on experience.

Hall, George and Rutherford (1978) found that training for adoption of technology was more successful when the present concerns of users of the technology were successfully addressed. According to Ward (2002), if decision makers are made aware of CBAM concepts, they may understand the change process and that the critical and challenging aspects of innovation are part of a normal process. According to Todd (1993), although CBAM has been successfully applied to educational computing at the

K-12 level by researchers such as, Cicchelli & Baecher (1985), Wedman (1986), Wedman and Heller (1984), and Whiteside and James (1986); it has had limited application in IHE. The ‘Stages of Concerns about Innovation (SOCI)’ questionnaire (Hall et. al., 1973) is generally used in studies following CBAM to provide the conceptual framework. SoCQ measures concerns related to the three developmental phases of CBAM: self-focus, task, and impact on others and is applicable to all types of innovations.

The process through which innovations emerge does not always follow linear paths and may involve complex feedback mechanisms and interactive relations (Klein and Rosenberg 1986). Gilbert and Ehrmann, (2002) provide a collection of strategies for effective use of technology in organizations. The first strategy is to develop a vision, which includes purpose, pace, and risk. By using technological innovations to increase productivity and access, an institution can increase communication between the faculty, students and stakeholders.

Research suggests that in spite of the existing issues with using technology to its ultimate potential, especially in the education domain, appropriate guidance for the use of technology can be very beneficial in increasing educational productivity (Byrom and Bingham, 2001; Clements and Sarama, 2003; Mann, Shakeshaft, Becker, and Kottkamp, 1999; Valdez, McNabb, Foertsch, Anderson, Hawkes, and Raack, 1999; Wenglinsky, 1998). According to Valdez (2004), this guidance may be aided by leadership theories such as ‘systems thinking’ that tend to address novel and complex organizational problems such as technology diffusion.

Systems Thinking

Conceptual theories of leadership address the need for leaders to understand and interpret information within a larger framework using a systems perspective to address institutional problems (Valdez, 2004). According to Valdez, the concept of ‘systems thinking’ addresses contextual thinking as opposed to analytical thinking, and leads its users to analyze a situation with multiple frames to understand it. This analysis of multiple elements further allows the users to understand the situation within a larger context to interpret its meaning and potential effects. Availability of a larger perspective provides an in depth understanding of the context and relationships, and their connectedness to other elements or internal systems, if any.

According to Mattessich (1982), in order to reach the goals of systems improvement, criteria for and measures of effectiveness are desired. According to Mattessich, once such criteria and/or measures are defined and created, one may address the question (s), which system and/or system structure is appropriate, satisfactory or optimal as a solution for a problem at hand. Systems thinking theory suggests that subsystems constantly relate back and forth to a specific super-system, constantly reconciling the often occurring conflicting goals.

Conceptually, ‘systems thinking’ permits the users to understand the properties of the various parts of the system as they are related to the organization as one large system (Mattessich, 1982; Senge, 1990). Moreover, the appropriate application of systems thinking to educational domains is more than simply identifying the solutions to solve the problem in a given setting (Anderson, 1993). The situations are too complex, and using the concept of ‘systems thinking’ can help in understanding the dynamic complexity of a

given situation, pinpoint key interrelationships, and help anticipate the unintended consequences of proposed actions. This property allows the user to focus on the basic principles of organizations rather than simply focusing on the basic building blocks.

Systems thinking therefore promotes the analysis of a system with the discovery of underlying causes, sources for and the deep rooted meaning if any pertaining to a given situation. A specific component of this theory is the application of calls systems archetypes to a given setting to identify key interrelationships (Senge, 1990). These archetypes are an aid to seeing interrelationships within the whole and help identify structures, locate the feedback loops and find the leverage (Anderson, Rungtusantham, Schroeder and Devaraj, 1995). Balancing process with delay; Limits to growth; Shifting the burden; Eroding goals; Escalation; Success to the successful; Tragedy of the commons; Fixes that fail; and Growth and under-investment.

The competency level of a specific system may be identified by the way it is understood by its key users and stakeholders (Zmuda and Tomaino, 2001). According to them, if the system is understood through a set of assumptions about current practices and their perceived effectiveness, the system is incompetent, yet if it is understood through an examination of the system's elements and their interrelationships, and their documented effectiveness in fulfilling the system's purpose, the system becomes competent. A competent system may assist administrators and teachers better understand the school's underlying purpose and the stakeholders' deeply held beliefs.

Summary of the literature review

With the advent of external legislations such as NCLB (2001) and Title II of the Higher Education Act, IHE have witnessed several inflection points, typically referred to as the abrupt elbow in a graph of growth or decline when a new paradigm sets in. The concepts of assessments, standards-based accountability, and educational reforms have witnessed popularity and prevalence, and at present every state has some form of an accountability system in place (Fuhrman, 2004). Reliance on solutions through innovations such as technology and leadership theories has heightened and the complexity of educational systems is of a higher magnitude than before. There is a critical need for resources and innovative thinking to address the needs of the stakeholders, legislature mandates and specifically the institutional need to ascertain its social status as a capable institution of higher education.

Academic literature suggests that there is a significant effort within the IHEs to recognize and experiment new methods of teaching, curriculum delivery and higher order organizational management. This literature review provides a basis for the case study that follows, to examine the process of assessing effectiveness at program levels in order to address overall effectiveness of the IHE. The researcher attempts to provide the reader with a clear and concise understanding of educational accountability as a process, its impact on teacher preparation programs. Specifically, the need for innovations, awareness of the concerns of the innovation users during change and a leadership initiative to understand the educational system at unit level to ensure a stable system-wide enhancement is addressed.

This analysis of academic literature is an attempt to provide the study useful insights into the challenges that underlie the solutions that are currently employed for enhancing educational program effectiveness; adhering to external mandates and internal initiatives of quality improvement. The following section will address the methodology followed by the researcher to conduct the case study. The type of research method, nature of the study, types of evidences gathered, data collection and data analysis procedures will be duly addressed.

CHAPTER THREE: METHODOLOGY

Introduction

The primary purpose of this study was to determine the relationship between the changes observed in the program assessment plans and the reporting method used to report these plans. The researcher also aimed at documenting the perceptions of the program coordinators regarding the process of program assessment planning, as it was practiced at their institution.

Document reviews of program assessment plans provided the structural characteristics of the process. The interviews and focus group discussion provided the emic (participant) perspective, which refers to the way the members of a given culture envision their world (Miles and Huberman, 1994). Coordinator perceptions were analyzed and compared with administrator perceptions and researcher notes to gain a conceptual understanding of the process of program assessment planning as practiced. The case study intended to focus on documentation of the changes observed in the program assessment plans, the process of program assessment planning and the perceptions of the program coordinators as the leaders of the college.

Use of Mixed Methods

As suggested by the review of literature in chapter two, quantifying effectiveness is a possible yet challenging task, and requires use of multiple measures in order to maintain the integrity of the inferences that may result. Denzin and Lincoln (1994) and Stake (1995) suggest that qualitative inquiry methods allow researchers to focus on

understanding or interpreting the subject matter in terms of the meanings that the related individuals bring to them; and provide researchers with a methodology that is complementary to quantitative methods (Padgett, 2004). Combined use of qualitative and quantitative data, better known as the use of mixed methods, may therefore strengthen and proliferate the inferences based upon the results of the studies conducted (McConney et. al., 2002).

Evaluation pragmatists have lobbied for over two decades for the use of mixed methods to conduct social research (Caracelli and Greene, 1993, 1997; Greene and Caracelli, 1997; McConney et. al., 2002). Mixed method approaches may eliminate the limitations and biases that may be caused by the use of any one method.(Caracelli and Greene, 1993, 1997; Denzin and Lincoln, 1994; McConney et. al., 2002; Rossman and Wilson, 1991; Weiss, and et. al., 1998). Mixed-method rather than single method approaches to conducting social and policy research have become firmly established as common practice. (Caracelli & Greene, 1993, 1997; Greene & Caracelli, 1997; Greene & et al., 1989; Patton, 1980; Weiss, et. al., 1998)

Proponents of both qualitative and quantitative research methods provide adequate advocacy for the respective use of either method. Also, a systematic review of literature on mixed-method designs by Clay (1990) reveals that the value of complementary approaches is highly recognized across the research domain. According to Clay, complementarity in program evaluation ensures that external perspectives, such as acquisition of skills and cognitive objectives, are associated with internal perspectives, i.e. the meaning that actors assign to different situations. When a mixed-method approach is used as a deliberate program evaluation strategy, complementarity capitalizes on the

strengths of both research methods, thus providing an explanatory and interpretive meaning to the findings. Keeping in mind the goals of this research, the potential nature of data, the significance of using both qualitative and quantitative methods, and the researcher's goal of conducting this study, the use of mixed research methods was deemed to be most appropriate. The mixed method approaches as recommended by Greene and Caracelli (1997) were followed to ensure the robustness of the design of this study.

Case Study Design

While mixed-method was chosen to guide the design, case study was selected as the research methodology. A Case Study format can accommodate a variety of other research designs, data collection techniques, epistemological orientations, and disciplinary perspectives (Merriam, 1998). Case study is also a technique of inquiry that helps to explain the meaning of social phenomena maintaining the originality of the natural setting, and in which the focus of the study is on interpretation and meaning (Erickson, 1986). According to Stake (1995) a case study may take any number of simple or complex forms. For example, it may be a subject or an object that could constitute a case, or an incident such as mobilization of military forces in hurricane affected areas. This variability in the definition of case may lead to confusion over what topics may be best researched using a case study design. Stake also explains that the goal of the case study researcher is to think more about specifics than generalities.

The epistemological orientation of case study researchers is interpretive, which means that a researcher's primary aim of conducting a case study is to understand the

meaning of a process, experience or phenomenon (Stake, 1995; Yin, 1994). This understanding provides the researcher with the knowledge that is gained as a result of an inductive process, a process that generates a specific theory rather than testing an existing theory (Merriam, 1998).

Irrespective of the orientations of the inquiry or the epistemology of the researcher, if the study aims to answer questions that do not require control over the events in the phenomenon, but rather to simply understand how and why a specific phenomenon occurs, case study is an appropriate strategy (Yin, 1994; Stake, 1995). The adaptive nature of case study was the primary rationale behind its selection for this study.

The themes were validated using triangulation. The three sources for data collection were interviews, a focus group, and researcher notes (field notes and memos). Data gathered for this case study was analyzed using systematic analysis processes following Miles and Huberman (1994) and guidelines outlined in Yin (1994). The analysis process involved coding the data, sorting them into meaningful displays and analyzing them by searching for within-case commonalities and differences (Miles and Huberman, 1994). The researcher was alert throughout the process to determine the point of saturation, a phenomenon that occurs when there are no further emerging themes (Miles and Huberman, 1994).

Nature of the Study

The study was sanctioned by the Internal Review Board at the University of Central Florida. Selection of case study as an appropriate and functionally coherent research methodology for this study provided three significant advantages:

1. Case study methodology allowed for the collection of various kinds of data to support development of an in-depth understanding of the object of the study, the perceptions of program leaders of various programs regarding a university initiated and university mandated accountability program (Merriam, 1998; Stake, 1998).
2. Second, the methodology heightened the potential to elicit themes that might transcend multiple programs (Eddy, 2003; Larrivee, Semmel and Gerber, 1997).
3. Third, the evidence generated by using case study design is potentially causal in nature (Yin, 1994), therefore assisting in identification of relationships, if any, between the observed changes and the methods of reporting program plans.

The following chart describes the methods of data collection, the data sources and the research questions that were addressed:

Table 1: Summary of Research Questions, Data Collection methods and Data Sources

Question(s)	Data collection method(s)	Data source(s)
What are the changes that have occurred in the program assessment plans, over the academic years 2001-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?	Document Analysis	Descriptive Assessment plans, see sample plan attached in Appendix B.
How are the program assessment plans used by the program coordinators?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes
Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes
What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes

Case Study Background

Site Background

The system observed and documented through this structure-focused study is the program quality assessment (PQA) system, commonly referred to as the Institutional Effectiveness system by the users of the system. This system is managed centrally by the institutional research division, within a large urban, metropolitan university, and locally by a team of administrators belonging to the specific professional academic or non-academic unit.

The institution of concern in this case study is a college of education serving the education community through fifty seven academic programs. During the initial phase of investigation, this case study followed ten undergraduate initial teacher preparation programs as the units of concern, and then purposefully selected five programs for an in depth investigation in terms of the objectives of the study. Protecting the confidentiality of respondents, the programs and the institution was a significant concern of this study. The primary aim of the study was simply to document the case of concern. Pseudonyms are used in this case study to protect the identity of the local unit as well as the institution. From this point forward, the study site for this CS will be known as the Xenon College at the Hermes University.

The objective of this case study was to identify the changes in the academic programs at one professional academic unit (Xenon College), through review of annual program assessment plans, and document the perceptions of program coordinators of the selected programs regarding the reporting method for the system. Of particular interest is determining whether the reporting method prescribed and used for the institutional

effectiveness undertaking was in any way responsible for the programmatic changes observed and documented. The case study also investigated if there was a relationship between the observed changes and the changes in the programs according to the coordinators. It was anticipated that the program coordinator perceptions would vary from one program to another.

Site Selection

The Xenon College was an ideal candidate for studying the impact of an innovation targeted towards continuous quality improvement, especially because the college had recently undergone a rigorous accreditation process. Also, the program coordinators had recently developed program assessment plans for the following academic year and were presumably current in terms of their knowledge of the system and the tools used to generate their assessment plans. This situation ensured that the programs would be up to date in terms of their plans and results for the past five academic years, which coincidentally was the timeframe since the unit's last national accreditation visit as well as the age of the IE system since its transition to a web based environment.

According to Porter Sr. (2005), it is difficult to estimate the desirable amount of time sufficient to expect change resulting from change implementation. Due to the fact that confidence level, ability, experience and knowledge of innovation users when it comes to technology is unique for every user, each user will demonstrate unique levels of progressive change (Porter Sr., 2005). In the opinion of the researcher, availability of four versions of program plans per program for every academic year provides a trend identifying data set, significant enough to document and study the changes.

Convenience, close working relationships with the program coordinators, and significant working knowledge of the system, were secondary factors in the selection of Xenon College as the optimal site for this case study. Having worked closely with the team preparing for the accreditation visit, the researcher was aware of the importance of the IE system to the mission of the university and the college. The prior experience and awareness further assisted with the identification of documents for contextual examination of the site, as well as allowing access to publicly accessible assessment plans.

Researcher Background

In my role as a graduate research assistant to the Assistant Dean of Accreditation and Administration of my College, I had participated in multiple data collection and analysis projects specifically for the accreditation process as well as for generating state and federal reports. This experience provided me with in depth knowledge of the types of publicly accessible archived data as well as associated information such as methods and rationale behind their generation.

My positive working relationship with the Administration units of my college also provided me with numerous opportunities to interact with both the University level executives responsible for maintaining and managing the archive data, as well as the college level administrative personnel responsible for generating and ensuring the quality of the program level data. My role also required me to interact on a regular basis with college faculty, many of whom also served as program coordinators. These various interactions were highly beneficial for understanding the intricacies and overall conceptual framework behind systems such as the IE system at the Hermes University.

Participants

The participants (program coordinators) are teaching faculty in the Xenon College at the Hermes University, and are primarily responsible for the development of the program plans for their respective programs. Depending on the size of their programs, the coordinators acted alone or along with other program faculty members to generate the program specific assessment plans. Their ranks and titles varied and ranged from professor to assistant professor. All of the five individuals had administrative assignments within their departments as program coordinators, and were located on the main campus. The participants varied in terms of their experiences as program coordinators and as faculty members of institutions of higher education. Also, they came from different educational backgrounds and had different terminal degrees in their respective fields of study.

The program coordinators played a significant dual role in this study: one, as subject matter experts, and the second as the primary users of the IE system. With an understanding that, in these two roles the program coordinators have developed significant beliefs and perceptions about the system (both conceptually as well as empirically), the direct and unaltered (first hand) input of the coordinators as data was significant for the outcomes of the study.

The current chairperson of the Xenon College assessment review committee was also selected to be interviewed. As described earlier (p. 11), the assessment review committee reviewed program assessment plans submitted by the academic and the non-academic programs of the college. It was anticipated that analysis of data with inputs

only from the program coordinators might provide a biased outlook, especially with the respondents being from one group of contributors (program coordinators). The researcher was aware that inclusion of a single participant from a different group (administrator) did not constitute as a flawless strategy to ensure a well balanced and non-skewed dataset. However, it was anticipated that this dataset would provide the study a varied scope due to the difference in roles assumed by administrators and program coordinators.

Data Collection, Analysis and Synthesis

The study was completed over the course of two semesters in academic year 2005-2006. The research proposal was authorized by the dissertation committee in the Fall of 2005, following which a formal proposal requesting permission to conduct the study was submitted to the Internal Review Board (IRB) at the University of Central Florida. The IRB application was requested to be considered for expedited review and the IRB approval was received shortly thereafter. While the study design, identification of strategies for data collection and analysis began in the first semester, the actual data collection and analysis was conducted in the second semester.

Data Collection

The data collection process suggested by Yin's (1994) model for Case study design was closely followed for this study. As per these recommendations, archival records, a focus group session and interviews were used as sources of data. The primary techniques used to address the trustworthiness and/or validity of this study are triangulation (Patton, 1990), and member checks (Rossman, 2003; Stake, 1995). Triangulation of data is addressed in order to ensure construct validity (Rossman and

Rallis, 2003; Stake, 1995; Yin, 1994). Member checking is the process of verification of information with research participants to establish trustworthiness of data collection and analysis (Rossman and Rallis, 2003). Confidence in the data is addressed through ensuring accuracy of the data collected and from triangulating data to other methods and sources (Stake, 1994; Lincoln & Guba, 1986; Yin, 1994).

The core data for this study comes from program coordinator interviews and focus group sessions. In this study, participants were given a choice to review the results and discussion sections to validate the information provided during the focus group session and the interviews, in supporting evidence. Accurate data collection and analysis was facilitated by the expertise of the researcher around the specific content areas, since the researcher had the background in the content area and association with the participants to be empathetic in his interview approach and to establish the necessary rapport.

Document Review

Out of the existing fifty seven programs at Xenon College, 10 programs were selected by purposeful selection. All selected programs were academic programs involved with undergraduate studies and provided their students with the credentials requested to apply for a professional certificate issued by the state on completion of their respective program of study. The documented plans of the selected 10 programs were reviewed. These program plans have been generated annually using a web-based application. This application was designed by the division of institutional research at the Xenon College. A team consisting of local (college) administrative personnel typically involving one representative from every academic department and a representative from

the dean's office was responsible for coordinating the institutional effectiveness initiative within the college.

Each program generates an assessment plan which contains three primary areas: 1) Mission; 2) Student Learning Outcomes or Learning Objectives; and 3) Measures. The mission statement is aligned with the mission of the university and the college, respectively. The statements ideally consist of the primary purpose and the nature of the student population addressed. The student learning outcomes contain specific measurable and attainable outcome indicators which are time bound and results oriented. The measures included in an academic program plan state an objective means of assessing the outcomes of the program, indicate how each of the outcomes will be measured and the approach for the specific measurement (e.g. standardized assessment or portfolio). An example of an academic program plan is included in Appendix B.

A total of forty assessment plans were analyzed spanning academic years 2001-2005, for 10 undergraduate teacher preparation programs at Xenon College. Assessment plans belonging to a single program were collected and reviewed separately. Plans belonging to each program were sorted in such a manner that the panoramic view, provided by a large collection of forty plans, would be collapsed into a viewable form for better comprehensibility.

After studying all plans, observable changes were classified into five types:

1. Addition - If a new objective or a measure for an objective was added;
2. Conceptual - If there was a conceptual change in the statements within the plan;

3. Measurement: If there is a change to the mathematical value in the measure for example, the percent of students who would pass an exam;
4. Verbal - If the change is simply semantic as opposed to syntactic; and
5. Deletion - If there is a deletion of a specific objective or a measure within an objective. A frequency distribution chart was generated according to this classification.

The program plans analysis identified the programs with changes, if any, and every program provided a unique picture of change. The selection of program coordinators for the interviews and focus group discussion was based on the analysis of the program plans. Five programs (program coordinators) were selected so that at least one program from the following five categories would be a part of the future data collection:

1. Most observed conceptual changes;
2. Most observed measurement changes;
3. Least observed changes;
4. Recent (in last four years) change in program coordinator and observed changes; and
5. No recent (in last four years) change in program coordinator and observed changes.

The program assessment plans have public access on the university website and are qualitative in nature. The primary source of the program assessment plans is the university website. The data extracted from this source is coded and maintained in a

spreadsheet format. The data was maintained in the dissertation advisors office at the University of Central Florida on secure intranet servers.

A thorough review of these data provided the study a significantly rich understanding of the changes in the program assessment plans. The changes in the program plans were identified by a focused content review of the academic program plans of the Xenon College. This process assisted in the identification of all Xenon College undergraduate initial teacher preparation programs that through the program plans demonstrate programmatic change(s) over four academic years. The review of the program plans simply identified changes in the programs as documented in the program plans and their respective assessments. The initial phase of this study provided only a partial identification of the changes, if any, in the reviewed assessment plans.

Pilot Interview

The nature of this study was extremely sensitive and demanded a cautious approach to the research process. To ensure that the process of data collection did not indicate in any way any unseen underlying elements of concern, a brief pilot interview session was conducted. An interview was held with a program coordinator whose program assessment plans were studied in the initial phase of the study, but whose program was not selected to be a part of the qualitative data collection process.

With the data gathered through a pilot interview, the researcher evaluated data collection strategies and was able to re-examine the existing data sets and/or relevant documents. This would mitigate any unanticipated distress that would emerge at later stages of the study for example, data analysis or reporting. The pilot interview for this study used the same sets of questions as those planned to be used during the formal

interviews with the selected program coordinators. Some recommendations were carefully thought over and discussed with the dissertation committee members. After deliberations between the researcher and the dissertation committee, some questions were changed and some were added to the list of interview questions.

Demographic Questionnaire

Prior to the interviews, the participants were requested to complete a demographic questionnaire of eight questions. These questions were specifically addressed towards gathering data regarding the overall experience of participants in terms of service in higher education, their role as a program coordinator, and program assessment planning. Responses received through the questionnaire provided assistance in organization of the interview transcripts and during the data analysis. The information gathered through the questionnaire allowed for comparisons among the perceptions of program coordinators. The IRB approval for the questionnaire was sought and received as an addendum to the primary IRB application. Please see Appendix 'C' for the approved IRB approval form.

Semi-structured Interviews

Collection of detailed narratives such as interviews from the primary sources of information is said to be a principal strength of qualitative research (Ambrose, Huston and Normon, 2005). This approach to data collection is built on the primary strengths of qualitative research and its capacity to examine: (1) the perceptions and actions of participants (program coordinators in this study); (2) the specific contexts and its influences on the actions of participants; (3) emerging phenomena from open-ended interviews; (4) the process(es) behind events and actions; and (5) complex causal relationships (Maxwell, 1996, pp. 17—20, as cited in Ambrose et. al., 2005).

Five out of the ten programs that were initially purposefully selected for document analysis, were selected for semi-structured interviews using the selection criteria (on page 66). The program coordinators of all five selected programs were contacted via electronic mail to request their participation in the study. The coordinators were provided with the analysis documents pertaining to their respective programs. The analysis was provided both in quantitative format as well as in words (explanatory format) in order to maintain clarity of the information to be discussed during the interviews.

Each participant was assured of confidentiality and asked to sign a consent form which was sanctioned by the IRB. The coordinators were provided a copy of the IRB approval document in order to assure the integrity of the study. Please see Appendix C for a copy of the IRB consent; Appendix D participant consent forms for interviews and focus group session. Appendix E may be referred to for the interview and focus group protocols. Each respondent and their respective program were assigned a code and were referred to by that code, never by name, on any of the paperwork and coding sheets. No identifying information, such as the respondent's department, appeared anywhere on the field notes from the interview and focus group session.

The interviews, ranging from 45 to 75 minutes, were conducted by the researcher at the respective offices of the respondents. The interviews were recorded using either audio and/or video recorders based on the specific consent of the coordinator. Although the audio/video recordings provided an accurate account of the interviews, the researcher also provided a brief summary in the researcher's words regarding the specific interview

and observations during the interview, if any, the participant's reactions in general, and any events that took place that may have been instrumental for interpretations.

In compliance with Yin's (1994) model of CS design, the researcher verified the accuracy of interview transcripts by conducting member-checks (i.e., asking faculty participants to read and comment on the accuracy of the interview transcripts as reconstructed audio/video recording). This gave the participant a chance to correct or revisit any specific comment which he/she felt was an inaccurate depiction of his/her actual experience or idea. The participants were frequently asked clarifying questions to provide the participant a chance to revisit their statements, thus potentially reducing the time consumed during the member checks.

Development of interview protocol

According to Rubin (1995), important characteristics of an interview design are that the interview is flexible, iterative, and continuous. The questions in the semi-structured interview protocol were open ended questions to allow coordinators an opportunity to expand on their answers (Rosenthal and Rosnow, 1991). The interview questions dwelled on the issues identified in the theoretical development, and in particular, addressed the process of program assessment planning and the role of program assessment plans in the: 1) Institution of Higher Education (IHE), 2) Observed changes, 3) Individual program goals, 4) Quality of changes, and 5) Satisfaction with the reporting tool. Appendix 'F' lists the mapping of the questions in the interview guide to the constructs of interest.

The interview questions were specifically designed to document program coordinators' perceptions of the system of reporting program plans. The interviews

provided a comprehensive understanding of the concept of program quality assessment, as perceived by the program coordinators. It was anticipated that the interviews would provide a significant understanding of the rationale behind the observed changes or lack thereof; and the programs with leadership changes would provide the study with a varied perspective, based on the varied experience levels within the respective programs. The interviews also aimed to understand the overall process of generating program plans. The questions probed to identify the influencing factors behind the changes observed through the document review and relationship(s), if any, between the observed changes and the method of reporting program plans, as perceived by the program coordinators.

In order to facilitate a non-directive approach, the interviews began by asking the participants to describe their experiences in general regarding the process of program assessment planning. They were encouraged to identify any significant factors or critical incidents that affected their experience. As a result of this non-directive approach to begin the interviews, each coordinator provided a different account of their experiences and reflected his/her priorities and concerns.

Focus Group Discussions

Data collected through focus group provided the final set of evidence, also enhancing the validity of the study as a result of increased data reliability (Yin, 1994; Rossman and Rallis, 2003). According to Kitzinger (1994), the term *focus group* comes from the concept that groups are focused on a specific collective activity, and this collective activity occurs within a social context (Morgan, Korschgen and Gardner, 1996). Focus groups are time efficient, especially since the researcher can gather focused and rich information about a specific subject from multiple persons in significantly less

amount of time (Morgan and Johnson, 1997). Focus groups are typically viewed as a technique that is used primarily to produce results of a discussion of a group of people in a non-directive, yet controlled format (Flores and Alonso, 1995).

The participating members necessarily constitute a purposive sample of the target population (Lederman, 1990). This method allows for interaction both between the moderator and participants, and among participants themselves. Therefore, when compared to methods such as surveys and interviews, focus groups tend to provide richer and more in-depth information (Lederman, 1990). The facilitation of focus groups enables the participants to express their ideas spontaneously, thus controlling researcher biases (Bertrand, Brown and Ward, 1992).

The intent of using a focus group as a method of data collection in this study was to facilitate an open ended discussion where participants playing similar roles in the system may collectively qualify and/or clarify responses of their peers. The use of this method allowed participants to react to and build upon responses of other participants, therefore providing rich data that may be left unaddressed through individual interviews.

It was expected that the data gathered through the focus group session would provide in depth knowledge about the process of program assessment planning, however, this method of data collection came with a set of limitations. According to Wimmer and Dominick (1997), a dominant respondent may negatively affect the outcome of the focus group. Factors such as seniority, and personality of a respondent, may influence the opinions of other participants, therefore limiting the accuracy of data. Although there was no control to address these limitations, it was anticipated that retaining the same set of participants would allow the coordinators to express their opinions in a collegial

environment. This would then improve the richness and versatility of data. To address this limitation, all interview participants except the chairperson of the assessment review committee were retained as participants for the focus group session. It was anticipated that presence of the chairperson might cause an unintended influence for reasons such as seniority and the chairperson's designation in the college administration. Exclusion of the chairperson would therefore provide coordinators with a non-influential environment to participate in a collegial discussion.

The focus group session was scheduled to last approximately one hour. Reviews of the interview transcripts guided the topics of discussion during the focus group session. The session was recorded using audio and video recording equipment with the consent of the program coordinators. The session was held in a conference room at the Xenon College.

Data collected through the focus group session was directed towards understanding the general functions of program coordinators and the primary processes involved in the development of program plans. The discussion was targeted to identify functions performed by the program coordinator, methods used by him/her to generate the plans, and to understand the critical benefits and impacts of the reporting method used. The data from interviews and focus group session was transcribed and reviewed for accuracy. The transcript was then e-mailed to each participant for member checking. This validation improved the legitimacy of the information and ascertained the accuracy of the records, therefore increasing the reliability of the study. Once the member checks were completed, the transcripts were reviewed, edited and analyzed.

Analysis of Data

“Objective analysis of subjective meaning is of the essence in social research” (Erickson, 1986, p.127). This case study was initiated and designed to specifically focus on understanding and documenting the process of reporting program assessment plans, as it is practiced rather than conducting an objective or subjective analysis of the IE system in search of a theory or meaning-interpretation of coordinator perceptions.

The goal of the preliminary analysis was to discover common themes in documented perceptions of program coordinators regarding the process of reporting program assessment plans. The study attempted to document the perceptions of coordinators and find any relationship between changes observed in the review of program assessment plans of four academic years and the method of reporting the program assessment plans. The analysis also attempted to organize this information, and to document a greater understanding about the overall process of program assessment planning.

Descriptive statistics, frequency distribution tables and graphical distribution charts were used to analyze the documents. The frequency distribution aided in identifying trends, if any, and in understanding the types of changes that can be identified as documented. This analysis provided an understanding of the programs that have witnessed programmatic and non-programmatic changes in varying aspects.

Data from interviews and the focus group was analyzed by the researcher and reviewed for accuracy by the primary dissertation advisor. The initial phase of data analysis process took place simultaneously with the interviews and the focus group and followed the category development method for content analysis (Mayring, 2000). The

transcripts were analyzed to identify categories of responses, if any. These categories were reviewed to allow for a more in-depth interpretation of the data. The development of the preliminary categories assisted in the development of the questions for the focus group session. The categories developed from the focus group transcripts were referenced to eliminate any need for further follow up with the focus group participants.

Coding

Generally, coding for qualitative research means “assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles & Huberman, 1994, p. 56). According to them, coding of data collected is central to case research and crucial for the flow of analysis. For a comprehensive examination of data it is essential to try and reduce data into smaller fragments. According to Karlson, Nellore and Soderquist (1998) as cited in Voss, Tsikriktsis and Frohlich (2002), doing good data coding improves reliability.

Coding classes advised by Miles and Huberman (1994) were referred to during this phase of analysis. Open coding was used to generate data fragments essential for the development of concepts and themes. According to Voss et. al. (2002), concepts form the foundation blocks of theory and open coding is an analytic process which facilitates concept identification and development in terms of their characteristics. According to them, it is often prudent to limit the number of concepts when coding constructs based on case research.

The data sets that were analyzed in the first coding step were interview transcripts, focus group transcripts and researcher notes (field notes and memos). The plan was to code and aggregate data in order to reveal patterns across the program

assessment plans. Descriptive codes that attributed a class or phenomenon to a line of text were identified, followed by more in depth, interpretive codes and finally, inferential pattern codes were employed when the data became clearer. A detailed list and code structures are provided in Appendix 'G'.

Participants' perceptions about the reporting method and their opinions about the overall process of program assessment planning as practiced, were given special attention. Lines and paragraphs from transcripts were coded based on, and suggested by, their content. It was anticipated that new codes would be developed as themes emerged from the data.

Once a group of patterns was identified, a preliminary code structure was designed to guide the analysis. Preliminary codes were assigned to excerpts from the transcripts of the interviews and focus group, and the researcher notes. If a concept guiding a specific code was relevant to more than one observed pattern, the researcher coded and entered it into as many patterns as applicable. After coding for broader themes, more detailed codes within each of the initial patterns were derived and developed.

The identification of patterns would clarify the specifics of a given issue (for example, what coordinators mean when they talk about "inadequate" program planning tools or what a productive and attainable program plan might entail). The data gathered through interviews, the focus group and researcher notes discussions provided contextual information and identified interaction of events that shape and influence the decisions of program coordinators which are reflected in their respective assessment plans.

Synthesis of Data

Miles and Huberman (1994) suggest three concurrent stages to be followed in a data analysis phase: data reduction, data display, and conclusion drawing. Having reduced the gathered data to concepts and categories, the next step was to analyze the concepts and patterns that emerged. The efforts behind this case study were focused on the process of program assessment planning. The research questions were designed to gain a perspective and to describe, understand and explore the process as it was practiced within the study site.

Following the analysis methods prescribed by Miles and Huberman (1994), within-case displays were generated for explanation building. According to Eisenhardt (1989) as cited in Voss et. al. (2002), the logic behind building within-case displays is to enhance this researcher's familiarity with each case and to allow patterns unique to each case. Ability to visualize cases as logical representations allowed the researcher to comprehend individual case patterns before seeking meanings across cases.

A basic display of data was constructed as a starting point. This display provided the researcher a visual format that presented the information systematically to help in the process of data synthesis. This primary display was used to further build conceptually ordered displays (Miles and Huberman, 1994). The conceptually ordered displays allowed the researcher to address "conceptual coherence", if any, between the participant responses (Miles and Huberman, 1994, p.127). The displays provided the researcher with a means of approaching the clustered data sets in order to assist in explanation building.

According to Yin (1994), a theory may be regarded as a predicted pattern of events that may be compared with the actual events to determine its accuracy. After

completion of coding and display of patterns within cases, the next step was to analyze the patterns of data. Case dynamics matrices were developed based on conceptually ordered displays (Miles and Huberman, 1994). According to them, the case dynamics matrices may help in linking data with explanations. This would therefore provide an understanding of coordinator perceptions with respect to the process of program assessment planning as it was practiced in the Xenon College. Based on the case dynamics matrices, a graphic was generated. This graphic provided a synopsis of the synthesized data addressing the research questions as well as to develop an in-depth understanding of the process of program assessment planning.

In order to curtail unseen challenges such as straying away from the primary goals due to the nature of the process a basic spreadsheet was constructed to assist in data collection. This also helped to generate frequency distribution for codes and categories in each transcript and field note.

Methodology Summary

The inert characteristic of case study design may lead the researcher in unplanned directions during the data analysis phase (Yin, 1994). According to Yin, staying focused on the primary research question(s) is extremely important as the emerging nature of the data may at times lead the researcher away from the research questions. To ensure a focused direction, the coding of transcripts was intermittently discussed with the primary dissertation advisor of this study, therefore providing additional layer of confidence in the findings (Lincoln and Guba, 1985). In addition to maintaining discipline, this additional

step also improved the trustworthiness of the conclusions and helped to produce a better understanding of the case being studied (Bogdan and Biklen, 1998).

For the successful completion of this case study, it was important to understand two critical tasks at hand: 1) to document the changes observed through document reviews; and 2) to document the perceptions of the coordinators about the process of program assessment planning using the qualitative data. It was also essential that the researcher ascertained through dialogue with the participants the non-evaluative goals of the study. This assurance allowed the researcher to address the process and keep at minimum any exchange of dialogue about the implications of the system or about the perceived problems, if any, with the process.

Throughout the study, this researcher was alert to ensure that personal biases did not interfere with the process of data analysis.

To synthesize the findings, interview summaries were organized according to specific criteria; passages from interviews and classroom observation field notes were organized by their codes; and appropriate document review data was added to categories. All applicable narrative texts, tables and graphs were used to display the data collected in this study. Frequency tables were used from the document review results. Conclusions were drawn by reflectively examining patterns in the synthesized data. Chapter 4 presents these results followed by discussion in chapter 5.

CHAPTER FOUR: RESULTS

Introduction

This chapter presents the results of the case study, and steps are illustrated as they were followed during data analysis. This research study focused on the process of reporting program assessment plans using a web-based reporting method. The following table provides a synopsis of the research questions guiding this case study and the associated data collection methods and sources of data (the table is repeated intentionally for reference purposes):

Table 1: Summary of Research Questions, Data Collection Methods and Data Sources

Question(s)	Data collection method(s)	Data source(s)
1) What are the changes that have occurred in the program assessment plans, over the academic years 2001-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?	Document Analysis	Descriptive Assessment plans.
2) How are the program assessment plans used by the program coordinators?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes
3) Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes
4) What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?	Interviews, Focus Group, Researcher Notes	Interview/Focus Group transcriptions, interview memos and field notes

The review of literature provided a framework for data collection while a conceptually ordered display and a case dynamics matrix, developed during within-case

comparisons, guided the analysis of data. The results of the data analysis further provided an explanation of events between identified themes/concepts and gathered data sets.

As indicated in the previous chapter, anonymity was critical for the participants and their respective programs. In order to maintain the privacy of coordinators, their respective programs, the college and university, any identifying characteristics such as their name and any identifying link have been referred to by pseudonyms in this dissertation.

This chapter is organized to answer the four research questions and to illuminate emic (participant) perspectives regarding the themes that emerged through the analysis of data. To organize the results in an effective manner, this chapter is divided into three main parts:

1. Findings from the review of institutional documents, which provide a description of the case study site and the process that the case study explores.
2. A detailed synopsis of the results of the review of program assessment plans.
3. A detailed record of qualitative data analysis divided into sub-sections.
 - a. The first section provides an introduction to the participants of this study.
 - b. The following sub-section provides a synopsis of emic (participant) perspectives, on a specific predisposed concept or a theme that emerged through data analysis (based on the related research

question). The coordinator perceptions are organized based on level of experience.

The chapter concludes with a brief synopsis of the factors that were addressed through responses to research questions and those that emerged through data analysis.

Part I: Findings from Review of Institutional Documents

History

Site History

A thorough review of the official website of Hermes University and the institutional reports published by the Xenon College in 2005 was specifically useful in gauging the nature of the process of program assessment planning at the case study site: Xenon College.

Home to over 200 academic programs, the Hermes University is a large public university in the United States of America. A metropolitan university located in an urban setting and serving over forty thousand students (undergraduate and graduate), Hermes University is classified as a research-intensive university by the Carnegie classification system. Xenon College, an accredited College of Education, is one of the colleges at the Hermes University.

With faculty strength of over 140 full-time faculty members, Xenon College served a student population of over 5,000 students at the time of this study. Xenon College housed four academic departments which provided professional education at undergraduate and graduate-levels. The four academic departments were home to over fifty-seven educational programs out of which ten undergraduate programs focused on

initial teacher preparation. Program assessment plans belonging to these ten programs were investigated during the course of this study.

Process History

The annual exercise of self-evaluation and assessing quality improvement across all academic and non-academic units was established by the President of Hermes University in 1996. All academic and non-academic programs at Xenon College participated in the annual assessment facilitated by the university to assess the quality of their respective programs. According to the institutional web site, the importance and role of the program quality assessment system, commonly referred to as Institutional Effectiveness (IE) system in the Xenon College, was widely addressed and frequently communicated.

Every year, faculty and staff at the Xenon College collected data, reported results of the previous assessment year, and planned to implement an assessment plan for the upcoming year. The Dean's office at the Xenon College appointed an Assessment Review Committee (ARC) to communicate with the university-level assessment committee, and to provide guidance and support to the program coordinators in this process. A university assessment committee, composed of at least one representative of each college within the university, ensured that the data was collected systematically and in a timely manner. The assessment process in Xenon College was coordinated by the chairperson of the ARC with the help of other ARC members. These committee members were representatives of each academic department. Figure 1 illustrates the physical structure of the key entities in the process of program assessment planning at the Hermes University:

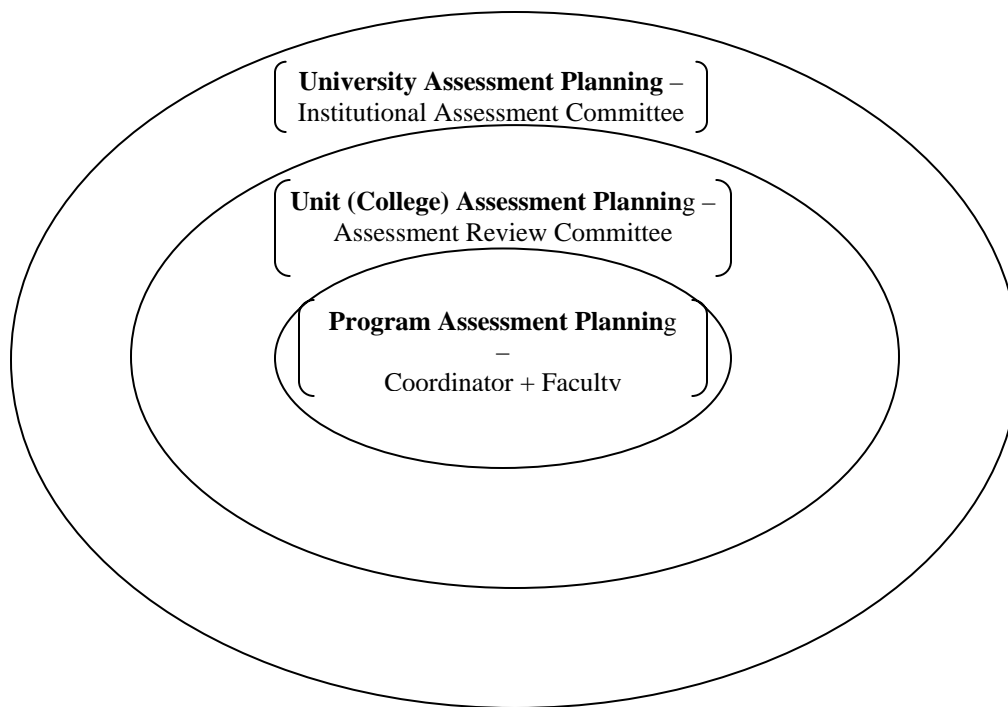


Figure 1: Physical structure of the university assessment planning system.

Program Assessment Planning - The process

The Institutional Effectiveness (IE) system at the Hermes University was geared toward promoting continuous quality improvement across all academic and non-academic units in the university. The IE system examined the university programs annually to review key performance measures to evaluate the programs in terms of program effectiveness, and to reveal opportunities for redirection, if needed.

A benefit of the IE system was a comprehensive review of program quality data across each academic and non-academic unit. According to the ‘Assessment Handbook’ published by the university-level assessment committee, this process was intended to encourage improved management practices and decision-making specifically in academic

settings with the primary goal of enhancing institutional effectiveness and therefore educational accountability.

The Hermes University assessment web site, which was used to develop and submit assessment plans and results, was also used by the local and central committees in the review process. The Web site was password protected to ensure a secure environment for the coordinators to develop plans and submit program specific results. In order to make changes to plans or document results of assessment, the coordinators were provided a login account. The security structure was employed for the committee members for the review process as well. At the conclusion of the review process, final reviews and assessment results and plans were made available to view online. The following flowchart (Figure 2) depicts the physical flow of assessment plans as described in reviewed documents.

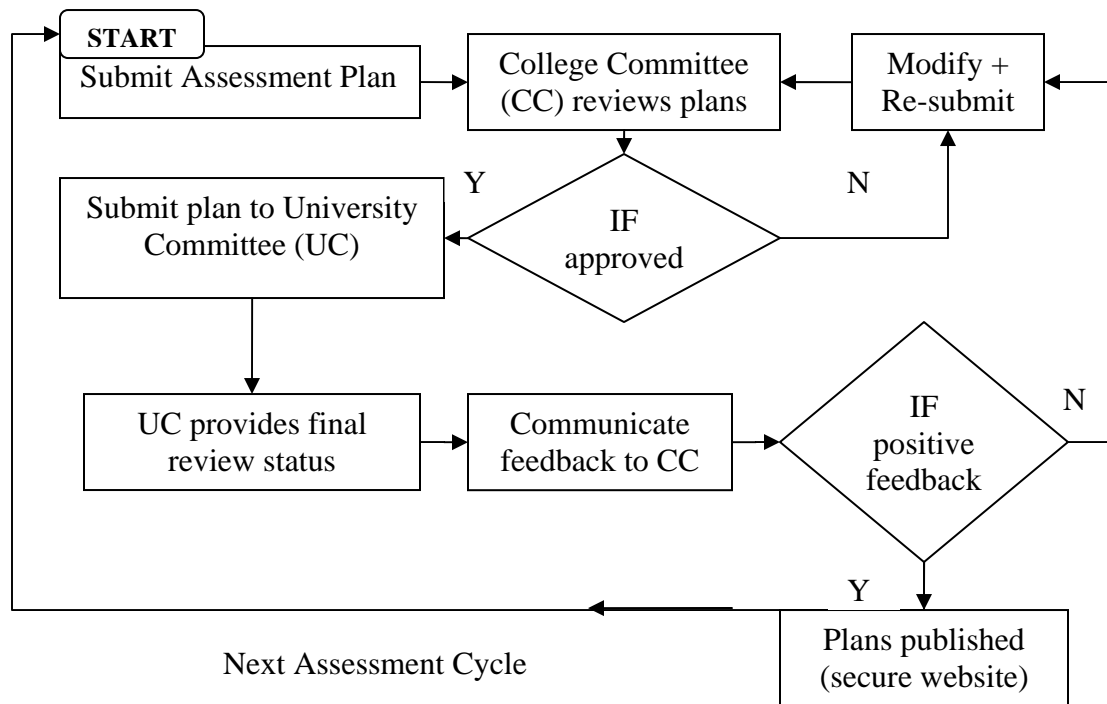


Figure 2: Flowchart of the process of submitting program assessment plans.

Every program in Xenon College submitted one report each year. The reporting cycle was based on the academic year and the report included three sections: a) results of the prior year's assessment; b) changes based on the results; and c) assessment plan for the following year.

Part II –Review of Program Assessment Plans

Forty program assessment plans, ten for each academic year, 2001-2002, 2002-2003 2003-2004 and 2004-2005, were downloaded for review from a publicly accessible web page at the Hermes University official website. Each plan belonged to one of the ten undergraduate teacher preparation programs at Xenon College. The plans were reviewed for content as a part of the document review process.

It was observed that all program assessment plans necessarily contained three sections across all observed academic years:

1. Program Mission: The program mission in all assessment plans was a broad statement of directions, values and aspirations of the department with regard to its programs. It provided a description of the program's purpose and its learning environment.
2. Learning Objectives / Learning Outcomes: These were single statements that provided a basis for assessment. The statements described the intended educational outcomes in terms of specific abilities, knowledge, values and attitudes for students in the program to possess.
3. Measures: Each learning objective/outcome was measured with a minimum of two measures. The measures were statements which

consisted of an object of assessment, a measurement method, and a measuring unit.

The number of learning objectives/outcomes and their respective measures across all programs varied. Understanding the changes in the number of learning objectives provided the researcher with a starting point. Table 2 displays the overall frequency distribution for the objectives across all program assessment plans.

Table 2: Frequency distribution for Program Assessment Plans Learning Objectives

Academic Programs	Frequency Distribution of Objectives			
	2001-2002	2002-2003	2003-2004	2004-2005
Program 1	3	3	3	4
Program 2	3	3	3	3
Program 3	3	3	3	4
Program 4	5	3	3	4
Program 5	4	4	4	4
Program 6	3	3	3	3
Program 7	4	4	4	4
Program 8	3	5	5	5
Program 9	5	3	3	3
Program 10	3	3	3	4

A frequency distribution of changes in the number of measures per objective for every program plan was also generated. This distribution provided a level of complexity as a step to determine the overall changes across all program assessment plans. Table 3 is the frequency distribution for the measures per objective.

Table 3: Frequency distribution of measures observed per objective

Programs	2001-2002					2002-2003					2003-2004					2004-2005				
	O1	O2	O3	O4	O5	O1	O2	O3	O4	O5	O1	O2	O3	O4	O5	O1	O2	O3	O4	O5
1	3	2	3			3	2	3			3	2	3			3	2	3	2	
2	3	1	1			3	2	2			3	2	2			3	2	2		
3	3	1	2			3	2	2			3	2	2			3	2	2	2	
4	3	4	4	1	2	3	2	2			2	4	3			2	3	2	2	
5	3	5	2	2		3	5	2	2		4	7	2	2		4	7	2	2	
6	3	2	2			3	2	2			3	2	2			3	2	2		
7	3	1	2	1		3	1	2	1		3	1	2	1		2	3	2	2	
8	1	2	2			2	2	2	3	2	3	2	2	3	3	2	2	2	3	2
9	2	2	1	1	2	3	3	2			3	3	2			4	3	2		
10	3	3	1			3	2	2			3	3	2			3	3	2		

Key: O = Objective; O1 = Objective 1, O2 = Objective 2, O3 = Objective 3 O4 = Objective 4 O5 = Objective 5

Focused Review of Assessment Plans

Research question one

Program assessment plans were arranged on a spreadsheet for content review. It is important to note here that the objective of conducting a content review was to identify the various levels and types of changes that have occurred in the program assessment plans without conducting any data mining for meaning interpretation.

A preliminary review of the sorted plans identified the commonalities and differences between the plans. The most commonly identified assessment objectives/outcomes across the ten teacher preparation program plans were: a) knowledge, b) skills, and c) reflective analysis of students as educators.

Other assessment objectives included employment, technology knowledge and skills, and knowledge of state standards. Every plan was examined for changes in the content of sections within the plans.

Five types of changes were observed in the program plans through content analysis: Addition, Conceptual, Measure, Verbal and Deletion. The following factors constituted for changes in the program assessment plans:

1. Addition – Inclusion of a new objective and/or measure of an objective
2. Conceptual changes – for example, a program’s objective changed from “...Students will demonstrate the knowledge...” to “...Students will demonstrate the content knowledge...”
3. Measurement changes – for example, a program’s objective measure changed from “90% students will pass...” to “100% students will pass...”
4. Verbal changes – for example, part of a program’s mission statement changed from “...enhancing technological advances...” to “...enhancing instruction to include technological advances...”
5. Deletion – Exclusion of an existing objective and/or measure of an objective

Table 4 demonstrates the frequency distribution of the changes as identified through content review of the plans.

Table 4: Frequency Distribution of the changes observed in assessment plans

Programs	Addition	Conceptual	Measure	Verbal	Deletion
1	3	0	0	1	0
2	2	0	4	3	0
3	4	4	9	7	0
4	1	6	7	7	3
5	2	10	0	15	0
6	0	6	4	9	0
7	3	5	0	7	1
8	11	9	1	10	0
9	4	5	0	6	0
10	0	4	0	8	0
Total	30	49	25	73	4

Based on Table 4, the following table displays the average (rounded) number of changes:

Table 5: Rounded Average of types of changes observed in assessment plans

Change type	Average number of changes
Addition	3
Conceptual	6
Measure	3
Verbal	8
Deletion	1

Based on the criteria for purposeful selection, programs 1, 3, 5, 7 and 8 were selected for second phase of data collection consisting of semi-structured interviews and focus group session. The programs and the rationales for their selection are as follows:

- a. Program 1: demonstrated least changes among all programs;
- b. Program 3: showed maximum number of measurement changes;
- c. Program 5: showed maximum conceptual changes;
- d. Program 7: showed changes and was led by a new coordinator;
- e. Program 8: showed changes and was led by a coordinator with the most experience at Xenon College.

It is important to note that although the verbal changes were recognized, they were not used in the selection criteria. The researcher did not think of ‘verbal’ changes to be a significant measure of change, because change in placement of words in a plan did not necessarily constitute change in the meaning of an assessment plan. The results of research questions 2, 3 and 4 follow in part III.

Part III – Qualitative Data Analysis

Participant Introduction

Based on the change distribution chart and the program criteria, five programs, (specifically Program 1, Program 3, Program 5, Program 7 and Program 8), were identified and purposefully selected. Following a formal request from the researcher, the chairperson of the Xenon College ARC and five coordinators of the selected academic programs participated in the data collection process. Following is the list of the participants and the pseudonyms given to them:

1. Assessment Review Committee Chairperson *Zeus*
2. Program 1 – Coordinator *Troy*
3. Program 3 – Coordinator *Euterpe*
4. Program 5 – Coordinator *Athena*
5. Program 7 – Coordinator *Andromeda*
6. Program 8 – Coordinator *Marpesia*

Below is a brief description of each participant based on interviews, researcher notes and demographic questionnaire.

Zeus

Zeus was one of the most senior members on the ARC. Until November 2005, he served in an administrative role at Xenon College, and in November 2005, he was appointed as the chairperson of the college assessment review committee. Prior to his new appointment, Zeus had served on the university-level committee from time to time as an alternative for the prior chairperson. He had joined the Xenon College in the same year when the University introduced the web-based IE system.

Zeus was not only one of the most experienced, but having served as an assistant to a chairperson he was respected the coordinators belonging to his department (Andromeda, Euterpe, Marpesia and Troy). Marpesia said, “Without some guidance such as the one we got from the then assistant to the chair of our department, it would have been impossible. His guidance and expertise were tremendously helpful in getting the task done.” Euterpe said, “If I wouldn’t have had his help, I would have had no idea. I feel so lucky, although I did not appreciate at that time but I am sure I would have done it incorrectly.”

According to the university handbook of assessment, field notes and the interviews the following items were identified as the roles of a college ARC, and as the chairperson of the committee, Zeus facilitated these tasks in Xenon College:

1. Communicate assessment expectations of the university to the coordinators responsible for the assessment process within the college;
2. Interface with college faculty;
3. Support the assessment process within his/her respective areas;
4. Assist with the successful submission of plans and results;
5. Conduct review of assessment plans and results; and
6. Present review results and make recommendations regarding the results to the university-level committee.

Troy – Program 1

Troy had been with the Xenon College as a faculty member since before the introduction of the electronic plan submission process. His higher education experience was extensive (twenty years). At Xenon College, Troy advised on an average of over

sixty students each year. Troy said, “At Xenon College the components of coordinating were advising, curriculum development, matching curriculum with the current standards, and so on.”

According to Troy, who was the only full-time faculty member in his program, his role in the college and the program primarily involved program planning, scheduling and assigning adjuncts, student advising, and everything to do with accreditation pertaining to his program. Out of these responsibilities, the most time according to Troy was spent on advising students regarding what needed to be done and how.

Euterpe – Program 3

Euterpe was relatively less experienced both as a faculty member as well as a program coordinator. Her first assignment as a faculty member at an institution of higher education was in 2002 at Xenon College as an assistant professor in her program. Euterpe said, “My first year we knew that I was going to have to take over the program”. In the following year (2003) she was assigned as a program coordinator for her undergraduate teacher preparation program.

Euterpe, like Troy, was the only full time faculty member in her program and had similar functions as Troy in terms of program planning, curriculum development and student advising. Euterpe’s program was not a large program, however she reported that a considerable amount of her time was spent on program development and student advising, and that program assessment planning was a very small part of her long list of responsibilities in the Xenon College.

Athena – Program 5

Athena had extensive experience in her field as well as in the practice of educational accountability and program assessment planning. Athena's career in the field of education began in 1978 and she had been in the capacity of program coordinator of her program at Xenon College for over five years. Athena has been involved in the process at Xenon College since the IE process began in the university in 1994.

In the start of her career in Education, Athena worked at the State Department of Education where she was involved in program assessment planning and evaluation. Compared to other selected programs, Athena's program was larger in terms of student enrollment and number of faculty. She had over ten faculty members in her program at the time of the study.

Andromeda – Program 7

Andromeda was the least experienced program coordinator compared to other participants. She joined Xenon College in 2005, and was assigned to be the program coordinator of her program in the same year. Andromeda had also graduated with a terminal degree from the same academic program for which she now served as a coordinator. She was a novice to the IE system. Since it was her first year, Andromeda had worked primarily with Zeus, who had guided her through the process. According to her the program plans were well established and in her capacity of program coordinator she had not played much of a role yet in the process of program assessment planning

Marpesia – Program 8

Marpesia had been an educator in the Hermes University since 1968 and was one of the most experienced faculty members in the Xenon College. She had served as an

administrator of Xenon College at some point in her career. She said, “When I was the administrator, I was more involved [with the process] than as a faculty.” Marpesia had now led her program as a coordinator for over ten years and like every other participant she came across as passionate about her program’s needs. Marpesia was very well informed with regard to educational accountability needs in the study site as well as its significance beyond the boundaries of the program, college and university.

Participant Summary

Each of the program coordinators was purposefully selected. As mentioned earlier, four out of five coordinators coincidentally belonged to one academic department and Zeus had served as the assistant to the chairperson of the same department. In the mind of the researcher this coincidence was extremely beneficial for this study. Based on the roles of the review committee members discussed above and data collected, the four coordinators and the administrator had interacted on multiple occasions and worked together for planning and reporting program assessments. Therefore, these four participants shared a common history to some extent. This characteristic added to participant commonalities and therefore to some extent, the comparability of data.

Based on the demographic questionnaire responses, three coordinators, Troy, Athena and Marpesia had joined Xenon College prior to the introduction of the electronic submission system for the program assessment plans and also had high experience in the field of education. Andromeda and Euterpe were relatively less experienced and had joined Xenon College recently, as compared to the high-experience coordinators. Table 6 provides the experience levels of the coordinators.

Table 6: Summary of the responses to the demographic questionnaire

<i>Demographics</i>	Zeus	Andromeda	Troy	Athena	Marpesia	Euterpe
Experience Levels	NA	Low	High	High	High	Low
Debut Year as faculty in an institution of higher education?	2000	2005	1985	1978	1968	2002
Joining Year at Xenon College?	2000	2005	Before 2000	Before 2000	Before 2000	2002
Year appointed as coordinator?	NA	>2003	Before 2000	Before 2000	Before 2000	After 2003

From this point forward, Troy, Athena and Marpesia will be regarded as HEX (High Experience) coordinators whereas Andromeda and Euterpe as LEX (Low Experience) coordinators.

Analysis of Participants' Perspectives

This section provides responses to the remaining research questions (2, 3 and 4). The answers are illustrated by the use of tables to organize participant responses which are excerpts from the interview and focus group transcripts. A brief interpretation of the responses will follow. Interpretation will include data collected through research notes (field notes and memos). After answering all research questions, themes that emerged through the data are presented.

To illustrate the data analysis in a systematic manner, participant responses were coded and were grouped based on their coded classifications, Administrator-Zeus, HEX and LEX. It was anticipated that the distinction between the responses received from different roles and experience levels, would provide the reader a better understanding of the differences and/or commonalities between the different conceptual groups of users.

Research Question Two

The second research question sought an understanding of how the program assessment plans were being used by the program coordinators. Responses gathered through interviews and focus group discussion provided significant detail regarding the use of the program assessment plans in the process of assessment planning.

According to the researcher, coordinator responses were direct and logical. However, probing was required multiple times during the interview with Andromeda. On more than one occasion during the interview, Andromeda acknowledged her lack of experience with regard to the use of the program assessment plans. All participants were cooperative and expressed their opinions relevant to the questions.

Two primary categories describing the use of the program assessment plans were identified. According to all participants, the plans were meant to serve two purposes, 1) program improvement; and 2) demonstrating compliance with external (state/federal) mandates. However, specifically answering the research question, there was a difference of opinion when it came to the actual use of the program assessment plans. Out of the six participants, Troy, Andromeda and the chairperson of the review committee felt that the plans were actually being used for program improvement of their respective programs. These three also suggested that the process of program quality assessment was primarily used to demonstrate compliance with accreditation related processes.

All sources of information, interviews, focus group and researcher notes suggested that the coordinators felt strongly about the difference between the perceived and the actual use of the process. Table 7 demonstrates excerpts from participant interviews and focus group session.

Table 7: Participant excerpts regarding the use of program assessment planning process

Category	Group	Participant Quotes		
<u>Program Improvement</u>	<u>Zeus</u>	<p>Programs have done significant improvements based on data collected through these plans.</p> <p>There are programs that have truly benefited from this type of exercise.</p> <p>Some faculty have truly embraced that [the process] and they are very pleased with the data they are getting and using the data to improve the quality of their programs.</p>		
	<u>HEX</u>	<u>Troy</u>	<u>Athena</u>	<u>Marpesia</u>
		<p>If we had not gone through previous plans and seen the critical problems that we did, we may not have thought of writing the new objectives. ...there have been times when we looked at the results and realized how much or in which areas we were lacking. So the indications, red flags so to speak, are useful in improving the program.</p>		<p>This system is using student learning outcomes, which is great for program improvement.</p> <p>...my program is more field-oriented and very different from other fields. I don't use these plans for any program quality improvement.</p>
	<u>LEX</u>	<u>Andromeda</u>		<u>Euterpe</u>
		<p>The data from this process helps us in many ways to improve the program. ...I think that anything that forces you to reflect and look at what you have been doing and assess whether it is working or not, is beneficial.</p>		
<u>Accreditation</u>	<u>Zeus</u>	<p>We use the plans here in COE [Xenon College] to assist us with NCATE accreditation as well as SACS, and to assist us with state DOE [Department of Education] program approval in addition to regional. From a university perspective this is a SACS support system.</p> <p>SACS has moved towards the same direction as NCATE and DOE, which is zeroing more and more towards SLO [student learning outcomes] and performance assessment. And since we follow NCATE standards at the college, the plans also help in ensuring that assessment takes place in congruence with national standards.</p>		
	<u>HEX</u>	<u>Troy</u>	<u>Athena</u>	<u>Marpesia</u>
		<p>I think they [university] are requiring us to do this because the SACS is requiring them to have such a process in place. It may have been used when NCATE was here but I am not sure about that.</p>	<p>I feel that the university is doing it because the SACS agency is requiring them to do it.</p> <p>I think it is to help in the SACS, but I cannot be sure.</p>	<p>I think because accreditation folks like SACS and NCATE ask us to do this that is why we are doing this.</p>
	<u>LEX</u>	<u>Andromeda</u>		<u>Euterpe</u>
		<p><i>On probing if there was any other specific reason for the use of process:</i></p> <p>May be it is NCATE because there was a lot of talk about it last year. I really don't know, no one has ever said anything to me.</p>		<p>I think it [process] was probably guided by NCATE. I am not sure.</p>

During the analysis, a strong theme emerged from the coordinator responses. Satisfaction with regards to the use of program assessment plans for program improvement summarized coordinator perceptions. Zeus’s input was not included in this analysis as his primary role in the process was more of a facilitator than user. According to the researcher, due to this distinction in roles his response was not comparable to the other responses.

The definition of “satisfaction” was generated by the researcher, based on the interview question, “*On the scale of 0-3, ‘0’ being not satisfactory, ‘1’ being somewhat unsatisfactory, ‘2’ being somewhat satisfactory and ‘3’ being satisfactory, how would you rate your satisfaction with the use process of program assessment planning for program improvement?*” Table 8 provides the respective responses of the participants to this question.

Table 8: Coordinator responses indicating their satisfaction with the use of the process of program assessment planning for program improvement

Participant	Rating of Satisfaction	Label
HEX		
Troy	1	Somewhat Dissatisfied
Athena	0	Dissatisfied
Marpesia	0	Dissatisfied
LEX		
Andromeda	2	Somewhat Satisfied
Euterpe	1	Somewhat Dissatisfied

To support the responses to the ‘satisfaction’ question, and construct data-driven inferences, a frequency table for the number of “satisfaction” codes was further generated, and based on the statements the code was further categorized as *satisfactory* or *unsatisfactory*. Table 9 provides the frequency distribution of the number of satisfaction codes identified per coordinator, based on their responses.

Table 9: Frequency of Satisfaction codes

Participant	Satisfactory	Unsatisfactory
HEX		
Troy	3	7
Athena	0	12
Marpesia	0	9
LEX		
Andromeda	1	2
Euterpe	3	6

Table 10 provides selective excerpts of the categorized participant views. The excerpts in the table are labeled as “satisfactory” or “unsatisfactory” for a better understanding of the researcher’s perception.

Table 10: Participant excerpts indicating satisfaction/dissatisfaction with the use of process

Category	Group	Participant Quotes		
		Troy	Athena	Marpesia
<u>Coordinator Satisfaction</u>	<u>HEX</u>	<p><u>Unsatisfactory:</u> For me to fill these IE plans and analyze the plans is absolutely irrelevant with respect to planning my program assessment.</p> <p><u>Satisfactory:</u> This [process] has been a kind of effort to try and figure out whether what is happening with students and teacher preparation is actually being achieved through the individual program.</p>	<p><u>Unsatisfactory:</u> It [process] is not important to me as a coordinator.</p> <p>This [process] is related to your program goals...but they don’t relate with day-to-day working of our program.</p> <p>This process and assessment is not relevant and not tied to actual program planning.</p>	<p><u>Unsatisfactory:</u> I don’t like the way we assess now. I feel it [process] is more structured and more geared towards accreditation and unless we fit in those little molds we are not worth it.</p> <p>I honestly do not see any benefits. This does not bring me any resources or improve my program.</p>
	<u>LEX</u>	Andromeda	Euterpe	
		<p><u>Unknown:</u> It has really just been a year since I started and I haven’t really had much of an experience.</p> <p>The way I see it, it [process] is flexible and you can make it fit as you want to fit for improving your program.</p>	<p><u>Unsatisfactory:</u> I think it [process] has no impact.</p> <p><u>Satisfactory:</u> The thought process it [process] has helped me with to make changes to one of my programs is beneficial.</p>	

Summarizing the above analysis, the second research question aimed at identifying the use of program assessment plans in program improvement, based on

participant perceptions. The participant perceptions suggested that the process of program assessment planning was intended to be used for meeting the data needs of accreditation agencies such as NCATE and SACS, as well as for program improvement. It was evident from participant responses that requirements from accreditation agencies played a significant role in the use of the process of program assessment planning in the Xenon College. Additionally, the participants, specifically coordinators, concurred that there existed an underlying rationale behind the perceived use of the process despite its primary use perceived as accreditation related.

Research question Three

The third question of this study aimed at determining if there was any relationship between the changes observed in program assessment plans and changes in the academic programs (assumption described in Chapter 1). The assumption was made that the coordinators would have the absolute knowledge about any changes that may have presumably occurred within their respective programs. Being an administrator, the chairperson was assumed to have an all-encompassing knowledge regarding the changes in the assessment plans as well as in the programs.

A week before the interviews were scheduled, participants were provided a hard-copy of the content review of their respective program assessment plans, which was conducted prior to participant selection. The content reviews were presented as descriptions of the changes. During the interviews, participants stated that they had referred to these analyses prior to the interview session. Three participants testified having reviewed the analysis before the interviews, referring to them as their *homework*. During the focus group session the topics discussed were more general than the interview

questions. All coordinators were aware of the changes in their respective programs and in the assessment plans. The participants' awareness of the changes in assessment plans reduced the need to revisit analyses.

According to the participants, the programmatic changes were mainly guided by forces external to the programs. These changes in the programs would then further be reflected in their annual assessment plans. Table 11 illustrates the common types of forces external to the programs, changes in the programs as indicated by the participants and the types of observed changes that were identified by all participants.

Table 11: Relationship between types of observed changes and program changes

External Forces	Changes in Programs according to the participants	Types of changes observed in assessment plans.
Accreditation (NCATE/SACS/DOE)	1. Use of NCATE/SACS/DOE standards in assessment plans. 2. Changes in state defined program structures, for example, Athena's program changed from being subject specific to becoming a generic program.	Verbal, Conceptual
College Policies	Change in rules such as, since 2004, all (100%) students are now required to pass the state certification exam in order to receive undergraduate degrees from initial teacher preparation programs.	Measurement
University Mandates	University Assessment committee requirements to attach new objectives and/or measures to existing plans in order to demonstrate program quality improvement.	Additions/Deletions

Euterpe and Troy provided explanations along with examples of how the changes to program assessment plans were at times based on the changes guided by changes in program requirements and internal observations.

Euterpe suggested:

“There are also changes seen because some of the program requirements changed, for instance the divide between the student competencies in the classroom and competencies as reflective practitioners as demonstrated in the student portfolios. Now because of this, some of the language was obviously redundant and we had to merge two measures or move measures to a different objective.”

According to Troy:

“Last year we found a red flag when in the exit interview we received feedback from students and realized from the results that they lacked preparation in a specific area. We are thinking that it may be time to add another objective to the plan so that the program works towards addressing this specific student issue.”

Andromeda also said, “Obviously with changes in faculty, there are changes that take place, since every faculty tends to act differently and emphasize on different things [sic].”

This research question did not seek a causal degree (greater/lesser effect) for change factors causing the reported changes in the programs. However, all participants (coordinators and Zeus) concurred that external forces, such as accreditation needs and college policy, were the primary factors causing changes in the programs and these changes were reflected in the assessment objectives and their measures. Therefore, answering the research question, according to the participants, there was a relationship between observed changes in the assessment plans and changes in the programs. The changes in the program assessment plans were mainly as a result of changes in programs caused by external forces such as accreditation agencies. However, there were also changes in program assessment plans caused by internal observations and changes by the developer of the program assessment plans.

Research Question Four

The final research question asked if there was any relationship between the changes in the assessment plans and the method of reporting the program assessment plans. The researcher had a background in a technology-based field, and had to attend

this question carefully to avoid any biased interactions, such as asking leading questions, during the data collection.

Except for Athena and Zeus, every participant had to be shown a printed sample form before asking any questions about the online reporting method. After seeing the sample form, other program coordinators displayed awareness of the existence of the web based form. All participants were very comfortable discussing the online reporting method.

Important to note is that on many occasions, “online reporting method” was referred to as “technology” by the participants. The researcher performed instant verifications multiple times during the interviews and focus group, to ensure that when participants said technology, they actually meant electronic (online) reporting/submission method. Also, according to the researcher, a causal relationship in this case is defined as a change causing factor; if any change in a plan was identified by the participant as guided by the use of web-based reporting method, it would indicate a causal relationship between the online reporting method and the specific change in program plan.

There were statements made by each participant in the interviews which indicated an obvious response to the research question. The preliminary coding immediately after the interviews revealed these statements. Table 12 demonstrates the participant statements and the obvious relationship specified by them (in bold).

Table 12: Interview excerpts indicating participant perceptions about relationship between online reporting method and changes observed in the assessment plans.

Participant	Interview Statements	Causal Relationship
	HEX	
Zeus	The online reporting or the web based form really has minimal effect as far as the program coordinators are concerned since the assistants to the chairs provide technical support.	No
	It is lot more efficient to drill down to the program and give them data specific to their program. So no, although the process is easier now, that in paper based days the changes cannot be associated with the technology* . I think the plans being online and having access to them anytime has definitely helped.	
Troy	The electronic submission and the availability of data on the internet is going to affect how we look at assessment, so to some extent I will say that the electronic submission is guiding the changes. I would have done what was needed even without the tool. I would say I preferred it when we had to submit assessment plans on paper.	Some
Athena	I am sure it has had effect at the institutional level and for people who have to aggregate the data. But from my perspective as a program coordinator I don't think the technology* has made any difference.	No
Marpesia	Although the plans being there at anytime is great, but this reporting method does not help me at all for generating plans as such. I would say that technology* has helped a lot in speeding the process for the entire university	No
	LEX	
Andromeda	I would say that technology [reporting method] has helped a lot...It would also make it easier for the university to track the changes. But I don't think technology* has guided any of the changes to the program assessment plans. I think having the online tool does play a role.	No
Euterpe	I would not say that the changes are caused by the technology* , but yes having it online has made it easier. It is more accessible, at any time I need it.	No

* indicates a reference to the online reporting method

The participants stated that there was no causal relationship between the use of online reporting method and the development or use of the program assessment plans. However, since Troy said that electronic submission was guiding some changes, the topic was introduced in the focus group session. Focus group responses however, did not indicate any specific causal relationship between the method of reporting program assessment plans and the changes observed in the plans.

The following are excerpts from the focus group session with regards to the causal relationship between the plans and the online method of reporting:

Table 13: Focus group excerpts indicating coordinator perceptions about relationship between online reporting method and changes observed in the assessment plans.

Participant	Focus Group statements	Causal Relationship
HEX		
Troy	The technology* is great, but what really matters is the content and how is it that the program actually goes about getting its plans put into action.	Unknown
Athena	I don't think technology is of any help really. I don't refer to those online plans any ways.	No
Marpesia	I feel it is pretty simplified, and sort of a guide for people like me who do not have much knowledge about assessment. It is a good way for someone like me to be informed about goals that we need to be assessing. It is a good starting point. We don't have to go researching anything else, so it is helpful from that sense. We can simply respond to this instrument.	No
LEX		
Andromeda	No Response	
Euterpe	If I was given a sheet of paper, it would be even worse. If I was given a hard-copy report which I had to hand change or change on word processor and email to someone that would make it worse. I could save and come back to it later which was very important. Especially in the first year, when I had no idea how to do certain things, That feature is very helpful even today. Being able to save and return, being able to change online and have the changes reflected immediately is very important.	No

Summarizing the responses for the research question, the participants explicitly suggested that that having the ability of submitting the plans using a electronic medium was effective. Although availability of technology eased the process of reporting, participants suggested that there was no causal relationship between online reporting method and the changes observed in the plans.

Summary of Responses to the Research Questions

According to the researcher, coordinator responses provided unambiguous and explicit responses for every research question. This clarity in responses excised any

further contacts with the participants for any clarifications or additional round(s) of data collection. Table 14 illustrates the summary of responses to the research questions.

Table 14: Summary of Responses to Research Questions

Research Question	Data Source / collection method	Finding after analysis of data		
		Change Type	Total	Average
What are the changes that have occurred in the program assessment plans, over the academic years 2001-2002 to 2004-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?	Program assessment plans: Content Review of plans	Addition	30	3
		Conceptual	49	6
		Measurement	25	3
		Verbal	73	8
		Deletion	4	1
How are the program assessment plans used by the program coordinators?	Participants: Interview. Focus Group, Researcher Notes	Accreditation Data needs, Compliance with external (NCATE, SACS, State DOE) mandates, Program improvement		
Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?	Participants: Interview. Focus Group, Researcher Notes	Yes: Accreditation;	Addition/Deletion/Conceptual	
		Yes: Program (Internal)	Addition/Verbal/Conceptual	
		Yes: University Mandates /College Policy	Measurement, Conceptual	
What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?	Participants: Interview. Focus Group, Researcher Notes	The use of online reporting method did not guide any changes in the program plans according to the participants; however, use of online reporting method was helpful for the participants in the process of program assessment planning.		

Table 14 answers all research questions guided by the statement of the problem discussed in Chapter One. However, in the course of the data analysis themes emerged that generated a need for further comparisons of participant responses. Considering the exploratory nature of this case study, within-case comparisons were identified as the choice for analysis of these emergent themes. Such analysis of themes would provide the

researcher an outlook for understanding in depth the factors embedded within the process, which according to the respondents were significant.

According to Miles and Huberman (1994), exploration of such factors would satisfy two primary needs: a) provide conclusions about what is happening in the case; and b) identification of plausible reasons for why things are happening as they are. Understanding the participants' perspective with regard to the process of program assessment planning was critical for the researcher. Gaining a researcher perspective would identify the need for further studies and critical areas of significance, if any. The following section illustrates the within-case comparison.

Within Case Comparison

This study focused on exploring the program assessment planning process, as it was practiced in Xenon College. The design was focused on gaining a deeper understanding of the process and documenting the coordinator perceptions about the same. Data collection through documents, interviews and focus group discussion were directed with the research questions in mind. To better understand the meaning of the responses to the research questions and as illustrated by emic perspectives, a conceptually clustered matrix was generated by following the methods prescribed by Miles and Huberman (1994) for within case comparisons.

Table 15: Conceptually clustered matrix for exploring within case comparisons

Participants	Rationale(s) behind the process (perceived use)	Supports for use of program assessment planning process	Relationship between changes in plans and program	Actual use of process
Zeus	Program Improvement and Accreditation	ARC support; Communication channel; Technical Support; Advanced Technology	External forces such as NCATE, SACS and FLDOE	Accreditation, Program Quality Improvement, and Institutional Effectiveness
HEX				
Troy	Program Improvement and Accreditation	ARC Support	External forces specifically SACS; Internal Observations	Accreditation and Program Quality Improvement
Athena	Program Improvement and Accreditation		External forces such as NCATE and SACS	Accreditation
Marpesia	Program Improvement and Accreditation	ARC Support	External forces specifically SACS	Accreditation
LEX				
Andromeda	Program Improvement and Accreditation	ARC Support	Unknown	Program Quality Improvement
Euterpe	Program Improvement and Accreditation	ARC Support; Advance Technology	External forces specifically NCATE Internal Observations	Accreditation

The above within case comparison (Table 15) identified key elements that emerged through the course of data analyses. Although the matrix was a fair source for identifying and describing the underlying factors; to further bring together the constructs explored by the research questions, a diagram was generated based on the conceptually clustered display. It was anticipated that using a visual image to understand underlying constructs in this process would further guide the within case comparisons. Figure 3 illustrates the display in Table 15.

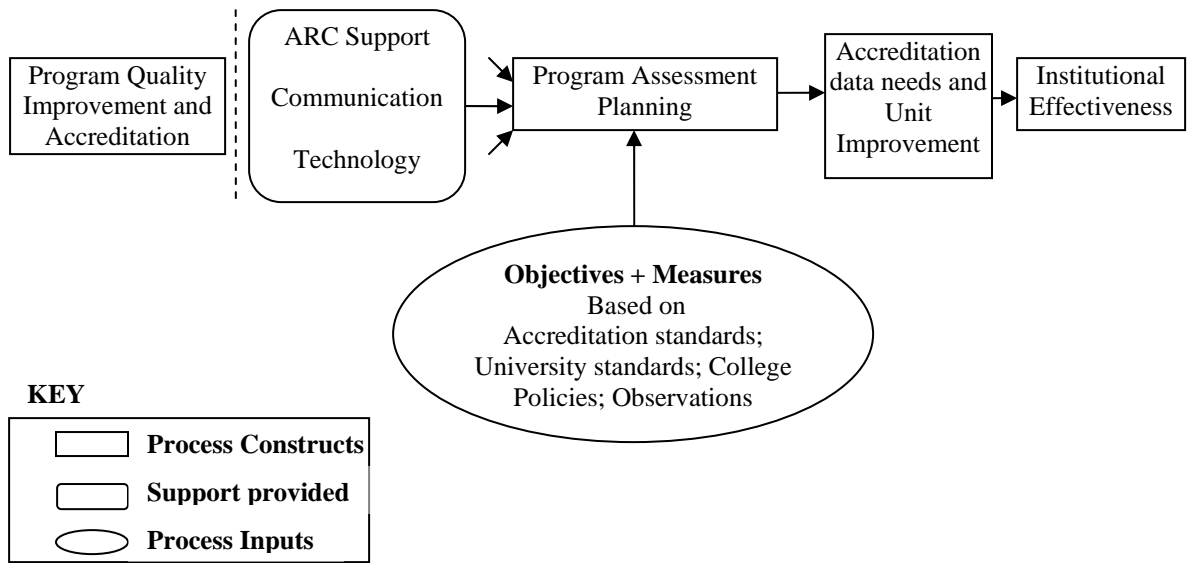


Figure 3: Process of program assessment planning as practiced based on participants’ perceptions.

Figure 3 is developed based on participant perception of the process of program assessment planning, as it is practiced in the Xenon College. Three primary groups of entities constitute this process:

1. ‘Process constructs’ – entities that form the necessary components of the process;
2. ‘Support structure’ – as provided by the facilitators of the process; and
3. ‘Process inputs’ which as the name suggest are the variable elements that are fed to the process of program assessment planning.

Summarizing the graphic, the process uses ‘program quality improvement and accreditation’ as its perceived rationale. With the help of various local and central facilitation efforts, specifically the provision of ARC support and communication as well as the access and use of technology, program assessment planning is facilitated (see column ‘Supports for use of program assessment planning process’, of Table 15). Based on participant responses, accreditation data needs and unit improvement are perceived as

the outcomes of the process. Zeus suggested that outcomes of this process would further contribute to address the Hermes University's institutional effectiveness initiative.

Zeus said, "Institutional Effectiveness is a global term for this entire process [program assessment planning] and it describes the university's continuous quality improvement process." This statement was further confirmed through coordinator input and the program assessment planning handbook published by the university-level assessment committee.

Emergent Themes

Topics such as benefits and limitations, and overall experience with the process were discussed during interviews and the focus group session. The participants appeared as very knowledgeable about the perceived intent for the process, the process as it was practiced, and their respective programs. They were passionate about the process and each interview had a tendency to go beyond the allocated time. Often the interview had to be redirected as participants strayed away from the topic.

During the analysis, three concepts emerged, besides those focused on the research questions: 1) nature of the process, 2) support structure, and 3) program specific data. To systematically analyze the responses of each coordinator, a prescribed method of data analysis was followed. A Case Dynamics Matrix was constructed to understand these emerging themes (Miles and Huberman, 1994). This display provided the researcher with an understanding of the process with reference to the emergent themes and allowed the researcher to explore the coordinator perceptions of what they thought was an ideal program assessment planning process. Table 16 illustrates the within-case comparison of the themes.

Table 16: Case Dynamic Matrix for Within-Case Comparison of the Emergent Themes

Concern expressed by coordinator –excerpts	Excerpts from field notes	Solution(s) suggested by coordinators, based on excerpts	Coordinator perceptions of ideal outcomes
Nature of Process			
<p>“I have had a must do task kind of perspective towards this process.” “I am doing it because it needs to be done.” “This process has become a kind of a checklist” “This is something that has been shoved on us, so to speak.”</p>	<p>The process is not perceived as critical, it is being done like a to-do task once a year. ...wants more ownership over the process. ...wants more control over the process</p>	<ul style="list-style-type: none"> • Increased awareness of the underlying use of process; • See the value in the system. • Dialogue for process emphasis • Inter-coordinator alliance • Consultations with coordinator for systems construct design to ensure coordinator control over system. • Allow coordinators to use the system without any repercussions. Allow total ownership over the plans. 	<p>Process-oriented; will get the big picture</p> <p>Effective program specific assessment plans.</p> <p>Coordinator satisfaction</p>
Support Structure			
<p>“We are still very much novices with this system. We have not received any formal training to complete these tasks.” “It is pretty much handed down.” “So it is just one person assigned to think about improving the program”</p>	<p>There is a need for local support in terms of faculty; The coordinator does not think it is a one person’s task.</p> <p>ARC support seems to be great but a need for training is clearly articulated by coordinator</p>	<ul style="list-style-type: none"> • Create faculty forums for discussing coordinator needs, attended by Central administration; • Create training modules beyond electronic handbooks. • Technical training for system operability, data access and process usability through university faculty support structures. • Theoretical training for knowledge diffusion for new coordinators 	<p>Increased independence and skill levels</p> <p>Dynamic plans focused on programs and based on coordinator needs</p>
Program Specific Data			
<p>“What does not get reported is our students feelings about our program” “I value my students’ perceptions. That is really the best way to know if my program is working for my students” “This system does not give us any way to help us help our teachers to understand what they need to know in order to be successful” “Their [students’] ability and the effort that it takes to do that, some how needs to find its way into the assessment plans”</p>	<p>If entering qualitative data is possible, then coordinator does not know that; If that is not possible then such needs should be expressed.</p> <p>...clearly knows the needs of their programs and students.</p>	<ul style="list-style-type: none"> • Training to use qualitative data; • Ability to introduce student learning outcomes as recognized by programs instead of simply accreditation related. • Address student focused objectives for program improvement. • Allow data types such as qualitative to measure student dispositions and identify student oriented program specific goals. • Address authentic program specific outcomes beyond accreditation needs. 	<p>Program specific assessment plans</p> <p>Student oriented program quality improvement</p> <p>Student oriented learning outcomes</p>

Table 16 provides an understanding of the concerns of program assessment planning as perceived by program coordinators beyond the scope of the research questions. A close review of within-case comparison and the responses to research questions suggested that the present facilitation support included technology, university level communication channeled through the ARC and coordinator support by ARC. Participants perceived technology as a helpful tool and it did not guide any changes to the assessment plans.

Based on coordinator perceptions, there were needs specific to the programs and students, which were not supported by the current process and its associated support structures. The case dynamics indicates that the current support structure through local communication and through ARC efforts fell short of the coordinators need to use the process effectively for program improvement.

To better understand the emergent themes listed in Table 16, the researcher compared the two versions of the process of program assessment planning, 1) as *practiced* and 2) as *perceived* as ideal by the coordinators for individual program improvement. Comparison of the two versions identified incongruence between them.

The perceived and practiced process shared the underlying rationale, which was ‘continuous quality improvement’ and both sought to attain educational accountability as their ultimate goals. Differences between the *practiced* version and the *perceived* version of the process existed in the various process components. The primary components of both processes included inputs to the program assessment plan, the facilitated support structures, and finally the by-products of the process.

Practiced version – In the practiced version depicted in Figure 3, a support structure, facilitated at the college level by the ARC, was provided to the program coordinators. According to all participants and the role of the ARC documented in the assessment handbook, ARC support involved assistance with the use of the online assessment system, data access and interpretation of the assessment results. The online method of reporting was upgraded periodically according to the ARC chair. The periodic upgrades ensured the presence of advanced technology features in the electronic submission system.

The inputs to the program assessment plans considered the change factors indicated in findings of research question three: accreditation agency, mandates, university mandates, and college policy changes. The researcher indicated these as institutional needs. According to the ARC chair, the stakeholder needs were also addressed in the assessment plans. Data such as: 1) student learning outcomes evidenced through the passing rate of teacher certification examination; and 2) employer satisfaction responses which represented their attestations of the quality of teachers produced by the college, addressed stakeholder needs.

The initial products of the process were unit (college) improvement and program improvement. These improvements were accounted through quantifiable data sets that were aligned with the institutional and stakeholder needs. These data are critical for accreditation related activities. According to the ARC chair, through this process, the college documented that they were continually improving the quality which was essential for the accrediting agencies. The data gathered through the process further assisted the university in enhancing its institutional effectiveness.

Perceived Version –The perceived version was based on coordinator responses and was interpreted through the within-case comparisons of themes that emerged through the data analysis. The coordinators indicated three needs:

1. Communication with university-level committee: to provide better perception of nature of the process;
2. Additional support structure in the form of training and faculty support; and
3. Program specific data such as qualitative student perceptions and observational data from teacher supervisors.

Within the *perceived* support structure, program specific data, and student-centered learning outcomes, along with the input measures in the *practiced* process, would be used as inputs into the program assessment plans. Such assessment planning would be conducted based on coordinator requirements and independently without any critical need for ARC assistance. According to them, this system would then generate program specific assessment plans which would be appreciative of student perceptions. According to the coordinators, achievement of more positive student dispositions while meeting student needs based on student perceptions, is authentic program effectiveness. The coordinators felt that this kind of improvement in program effectiveness would then lead into production of high quality teachers and therefore address educational accountability. The *perceived* process, according to the coordinators, would assess program effectiveness, following a student-centered approach rather than an institutional goals-centered approach.

Results Summary

The research questions focused on gaining an in depth understanding of the process and its relationship with programs at Xenon College as perceived by the participants. The first part of the chapter presented a description of the site and the process as it was practiced at the Xenon College. The second part displayed the results of document reviews. It demonstrated how each program was selected based on specific criteria. The third part was divided into two sections. The first section introduced the readers to the participants of the study which included one administrator, the chairperson of the assessment review committee and five program coordinators. Based on their demographic information gathered through a brief questionnaire, coordinators were categorized as High Experienced coordinators and Low Experienced coordinators. Such classification was developed to understand the difference of perceptions between coordinators with different experience levels. While one coordinator with low experience, Andromeda, did repeatedly acknowledge her lack of experience in the process, her responses were well-informed in most cases.

The second section of the third part provided answers to the remainder of the research questions. In this section, concepts that emerged during the course of this study were discussed as a part of the within-case comparison. This comparison directed the researcher to understand the process from a perspective beyond the problem statement of the study. The case dynamics matrix and the conceptually ordered matrix provided a clear distinction in understanding of the process as it was practiced and as it was perceived by the program coordinators at the Xenon College of Education.

CHAPTER FIVE: DISCUSSION

Introduction

Institutions of higher education (IHE) have increasingly employed internal initiatives to meet educational accountability requirements. Especially with the increase in stakeholders' interests in the accountability movement, a need for directed quality assurance initiatives in the delivery of higher education has become a focus of attention for institutional researchers and policy makers Volkwein (1999). Significant energy is being focused through federal/state mandates to assess effectiveness of academic programs (Darling-Hammond, 2004; Dodd, 2004).

According to Ladd (1996) and Meyer (1994), in order to increase the chances for successful accountability systems, factors such as the purposes, intentions, roles and expectations need to be addressed. The characteristics of a process of assessing program effectiveness are identified based on the level of explicitness and the range of consequences associated with it (CPRE, 1999). Understanding the characteristics of a process of educational accountability may therefore guide the examination of the usefulness of the process.

Review of the problem statement

A part of the strategic mission of the Hermes University, that houses the Xenon College, is to address continuous quality improvement across all academic and non-academic programs. The university has been using a quality assessment system to attain its institutional effectiveness goals. Xenon College has actively participated in this

initiative and adopted the assessment model for ensuring institutional effectiveness and a high level of quality in its educational programs. The college having been an active participant in the university wide annual exercise, each academic program had undergone four complete cycles of program assessment planning, and developed over five program assessment plans.

Review of the methodology

Exploring the process of program assessment planning as it was practiced in Xenon College and documenting the perceptions of primary users of the process was the purpose of this research. The primary tasks of the process involved conducting a content review of the program assessment plans of four academic years (2001-2005) and conducting a qualitative analysis of the perceptions of selected participants who were the primary users of the process in Xenon College. The study proposed to simply document the information as it was gathered.

While the study adopted a mixed-method research design, case study was selected as an appropriate research strategy for this study. According to Yin (1994), the typical characteristic of case studies is that they provide the researcher with a portal for developing a holistic understanding of cultural systems of action. With development of an in depth understanding of the process as an underlying cause for conducting this study, using a case study research design provided the study an ideal methodology.

Analysis of observations that were gathered through a content review of program assessment plans provided the selection criteria, and programs were selected to be a part of this study based on these criteria. Interviews and a focus group session were conducted to gain the participants' perspectives about the process of program assessment planning

as it was practiced in Xenon College. Data analysis strategies from Miles and Huberman (1994) were followed to conduct a systematic analysis of the collected data. Participant responses were analyzed to provide responses to the research questions and assess any emergent themes. A conceptually clustered matrix assisted in organizing and displaying responses to the research questions while a case dynamics matrix guided the explanation of the emergent themes.

Summary of the findings

This case study used a college of education in a large metropolitan university as its study site. All academic programs at the College participated in the annual process of program assessment planning, which was centrally governed and locally facilitated by an assessment review committee. Table 17 illustrates the summary of the findings of this case study based on the research questions.

Table 17: Summary of Data Analysis

Research Question	Data Source / method	Finding after analysis of data
What are the changes that have occurred in the program assessment plans, over the academic years 2001-2002 to 2004-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?	Program assessment plans: Content Review of plans	Five types of changes were observed across forty program assessment plans (4 years * 10 programs): <ul style="list-style-type: none"> • Addition – New objectives/measures added • Conceptual – Meanings of objectives/measures changed • Measurement – Changed units of measurement • Verbal – Wording of sentences were changed with no changes to the meaning • Deletion – Objectives/measures were deleted
How are the program assessment plans used by the program coordinators?	Participants: Interview. Focus Group, Researcher Notes	Plans were used for: <ul style="list-style-type: none"> • Accreditation Data needs, • Compliance with external mandates, • Program improvement
Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?	Participants: Interview. Focus Group, Researcher Notes	The changes in the academic programs had a causal relationship with the changes observed: <ul style="list-style-type: none"> • Accreditation mandates were reported as causing additions, deletions and conceptual changes; • Internal observations were causing additions, conceptual and verbal changes; • University mandates and college policies caused the measurement and conceptual changes.
What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?	Participants: Interview, Focus Group, Researcher Notes	The use of online reporting method did not guide any changes in the program plans – the use of online reporting method was helpful for the participants in the process.

Discussion of the Findings

The discussion of the above findings is organized in a systematic manner, with each research question discussed separately. Findings for each research questions are summarized, discussed in accordance with the review of literature, and then discussed from the researcher’s perspective. The discussion of findings of the research question will be followed by a similar discussion pattern for the findings from within-case comparisons.

Research question one

What are the changes that have occurred in the program assessment plans, over the academic years 2001-2002 to 2004-2005, which can be identified by reviewing the academic program plans documented in the program quality assessment system?

The scope of this research question was to identify the various observable changes by conducting a focused review of the content of each program assessment plan. Each program would have a unique set of reasons regarding why it demonstrated specific types of changes. Therefore the findings of this research question were not generalizable. A focused review of the plans over four academic years belonging to ten initial teacher preparation undergraduate programs suggested that each plan consisted of three sections: a) mission, b) learning objective / learning outcome (at least 2), and c) measures for each learning outcome (at least 3). Across all ten initial teacher preparation undergraduate program assessment plans reviewed, verbal changes were mostly observed, followed by conceptual changes.

According to Earl (1998), accountability serves as a tool to make data-driven decisions and also promotes emancipatory learning (learning through introspection and self awareness). According to the researcher, the changes observed in the assessment plans was an example of such data-driven decisions and/or emancipatory learning. Recognizing the need for evidence to assist in adoption and adaptation of what works Zoltnik (2004), helps to build knowledge about the root causes of unsatisfactory circumstances therefore giving rise to strategies to change them (Thompson, 2005).

This research question was strategically developed. It provided a selection of programs for this study. The selection criteria considered a variety of possible characteristics of the programs. The selection of at least one program with least changes

and at least one with most changes provided one source of variability. Having one program with a new coordinator and one with highly experienced coordinator provided another level of variability.

Research question two

How are the program assessment plans used by the program coordinators?

The findings illustrated two perceived uses of the plans: 1) to use the data generated by the plans for program quality improvement; and 2) to comply with the accreditation requirements communicated by the university and the college. While the first perceived use was in accordance with the institution's initiative of continuous quality improvement, the second perceived use was influenced by accreditation agencies.

According to Chester (2005), processes that guide accountability designs provide desirable targets and directions for institutional success. Chambliss (2003) suggested that focusing on improving quality on a continuous basis aides in enhancing and preserving the quality of educational services. Also, according to Connor (2000), assessment of teacher preparation programs on a continuous basis increases their potential to grow. The assessment of continuous quality improvement of teacher preparation programs is not only beneficial for their growth but essential to meet their desired outcomes.

The participants concurred that the primary use for these plans was to meet the data needs of the accreditation agencies and to support the University's quality improvement initiative to address institutional effectiveness. Accreditation agencies such as SACS and NCATE are periodically requiring IHEs to generate and maintain data-driven reports to assure their effectiveness as qualified and high quality institutions of higher education (NCATE, 2000; SACS, 1998). Therefore the use of institutional processes such as the institutional effectiveness process was a desirable exercise.

Also such requirements increases institutional needs to maintain the quality of externally directed reports and internally guided self-assessments (Serban, 2000); According to the researcher, data gathered through this process had a potential to build a knowledge base to address the compliance requirements of accreditation agencies. A knowledge base would contribute significantly to institutional activities (Serban and Luan, 2002), such as generation of institutional reports and self assessments.

Research question three

Do the changes in the academic programs have a causal relationship with the changes observed in plans for the respective programs?

The change factors that have been reported to be causing the changes in the programs and the plans are 1) accreditation agency recommendations, 2) university mandates, 3) college policy compliance, and 4) internal observations. According to the participants, the academic programs were driving the assessment plans and therefore changes in the programs were reflected in the program assessment plans. It was also reported that changes in the programs were primarily influenced by the prescribed accreditation standards, therefore reflecting these changes in the assessment plans.

Research suggests that such accountability processes that follow prescribed standards based assessment are often associated with consequences, and when consequences are involved with educational accountability, the outcomes may have a diverse effect on student learning outcomes (Burroughs, 2005; Darling-Hammond, 2004; Hanney, 2000; Klein et. al., 2000; Linn, 2000). Based on the definition provided by Hauser (1999) as cited in Darling-Hammond (2004), the process of assessment planning as it was practiced would be categorized as a 'high-stakes' process.

Measuring effectiveness of academic programs is a critical yet difficult task (Volkwein, 1999); Herman and Dietel (2005) suggest that effective alignment of assessments to prescribed standards in terms of relevance, breadth and balance may facilitate a successful accountability system. According to Herman and Dietel, a balanced alignment of a prescribe assessment structure that facilitates program needs and addresses accountability requirements may allow development of assessments beyond the needs for complying with accreditation standards.

According to the researcher, existence of such balance while measuring program effectiveness based on prescribed standards may avoid any potential diverse effects of high stakes accountability systems. Aligning assessment plans to the prescribed accreditation standards, with a balance between the standards and the programs' needs may resolve two issues: 1) optimize the process of assessment planning, and 2) address the concern of coordinator satisfaction with regards to the use of the process to improve their programs.

Research question four

What is the relationship between the changes observed in plans and the method of reporting, as perceived by the coordinators?

Jonnasen, 2000 suggests that technology provides IHEs the support required to enhance its efforts to induce a knowledge-centered culture. According to LittleJohn and Sclater (1999), technology systems provide assistance to IHEs in institutional effectiveness initiatives. The participants in this study explicitly reported that the online reporting method was a very helpful tool that eased the tasks involved in assessment planning. Based on participant responses, no causal relationship was observed or

indicated by the participants, between the changes observed in the program plans and the web-based reporting method used in the process.

However, participants suggested that the availability of a web-based system assisted them in the generation of plans as well as to assess the results and data generated from external sources such as principal surveys and graduating senior surveys. This finding was supported by researchers suggesting that technology based performance assessment systems facilitate institutional effectiveness activities (Crowe, et. al., 2003; Liu et. al., 2003; Walker, 2000). According to Xueguang and Roy (2005), data collected through a web based system addresses institutional learning in terms of improvements desired to meet the accountability requirements.

Xueguang and Roy (2005) state that, performance support systems enhance the potential for improving the overall institutional effectiveness with a minimal external support and interventions. However, coordinators of all levels of experiences reported that they needed and received assistance from the ARC at several different levels during the process of assessment planning. Moreover, coordinators also suggested that this assistance was instrumental in development of the plans. Several researchers deem such support provided through intermittent guidance as essential for the optimal use of technology. With appropriate guidance for the use of technology can be very beneficial in increasing educational productivity (Byrom & Bingham, 2001; Clements & Sarama, 2003; Mann, Shakeshaft, Becker, & Kottkamp, 1999; Valdez, McNabb, Foertsch, Anderson, Hawkes, & Raack, 2000; Wenglinsky, 1998).

One of the Low Experience coordinators made a very interesting remark. She said, "There may be areas which we may not be including, that we don't think about,

because we have the prior years' plans in front of us and we are not thinking about more that we could possibly do." According to the researcher, this comment indicated limitation of the use of the online reporting system. According to the participants, the method of online reporting was simply being used only as an assisting tool to generate effective assessment plans.

Research Questions: Discussion Summary

Effective teacher preparation is identified as the key to production and retention of highly qualified teachers (Andrew 1997; Goodlad, 1991; Holmes Group 1986; as cited in Connor, 2000). A system that periodically assesses the effectiveness of teacher preparation programs seemed to be a logical solution to meet the stakeholder demands for high quality teachers and their retention.

In the year 2000, NCATE reported a shift in the direction of educational accountability. It implemented two additional prescribed standards and modified its four existing prescribed standards. The new set of NCATE standards required that an assessment system be tied to an institution's conceptual framework and be based on a set of academic learning standards (NCATE, 2000). NCATE requires its constituencies (IHEs) to support outcomes based performance assessment reports rather than the previously followed self-reporting model.

This shift in the evaluation process requires IHEs to prioritize quantifiable outcomes of program effectiveness. This shift met the stakeholder needs to measure student learning outcomes on a continuous basis and produce high quality professionals. Such requirements have directed IHEs to adopt processes that would align their

institutional effectiveness efforts with standards-based program quality assessment (Darling-Hammond, 2004).

The need to adopt a model of program quality assessment were directed by external requirements such as stakeholders (high quality teachers), accreditation agencies (increased learning outcomes), and federal mandates such as No Child Left Behind Act (2001). According to Ewell, 1998, Volkwein, 1999, and Dodd, 2004, with the need to address educational accountability guiding the process of preparing educators, IHE must respond to concerns presented by the state and federal mandates, as well as the stakeholders. To address these external requirements and internal initiatives to enhance institutional effectiveness, according to the researcher, the employment of a process such as the program quality assessment system was a logical solution for the Hermes University.

The participants perceived the process as critical for program enhancement, and were aware of its underlying goal of addressing continuous quality improvement (CQI) which further led towards educational accountability. According to Dumas (1987) as cited in Chambliss (2003), it was essential to focus on CQI in order to maintain and manage the quality of educational products and services.

However, the coordinators articulated their concerns about the feasibility of the system as far as their individual programs were concerned. These concerns were highlighted during the within-case comparisons. Although the conception of the program quality assessment system was deemed significant and critical, these themes informed the researcher of the weaknesses in the process. What follows is the discussion of those emergent themes.

Within Case Discussion

The emergent themes specifically drew attention to the differences between the *practiced* process and the process as *perceived* by the program coordinators. Based on the conceptually clustered matrix (Table 15) and the case dynamics matrix (Table 16), the practiced and the perceived processes were compared.

Practiced Process

Prescribed models to enhance institutional effectiveness such as, cyclic assessment model (Boyle et. al., 1997, as cited in Kollenburg, (1997)), program level planning model (Nelson, 1985 as cited in Kollenburg, (1997)), Deming cycle (Deming, 1986) and systems thinking theory (Senge, 1990) supported the practiced process.

While the cyclic assessment model requires programs to align their goals and objectives to the institution's goals and objectives, the program level planning model prescribes a formal review process where every program reports a self-study to a central governing body. The Deming cycle suggests that organizations should follow a Plan-Do-Check-Act (PDCA) cycle to instill a culture of continuous quality assessment within the institutional constituencies, and systems thinking theory requires organizations to understand the elements of an institution to enhance inter-element effectiveness.

AACTE (2003) addendum to the report 'Teacher Preparation Research' suggests that there is insufficient data to pin-point specific measures of effectiveness for teacher preparation. Chester (2003) suggests that logical use of multiple measures may assist in evaluating effectiveness of academic programs. Also, use of quantitative methods may actually assist in evaluation due to their ability to enhance understandability, interpretability and comparability of data sets and the inferences drawn from them (May,

2004). The need for process generating program assessment plans with multiple quantifiable objectives and associated measures, especially for teacher preparation programs, was therefore genuine and logical.

The *practiced* process was built on effective models and similar versions had been implemented in academic and business organizations for quite some time. Therefore, with a strong historically attested theoretical support, the *practiced* process of program assessment planning had in itself the potential to meet the institutional effectiveness needs of the Hermes University. Whether it met the institutional effectiveness criteria, if any, was beyond the scope of this study.

Perceived Process

The perceived process suggests three needs: 1) Communication with university-level committee, 2) Additional support structure in the form of training and faculty support, and 3) Program specific data.

1. Communication with university level committee: The process of assessment planning was perceived by the participating coordinators as a meager task rather than a critical procedure. Coordinators also suggested that they were not involved directly in the creation of the system and did not have any control over the inputs that need to be provided to the system. That direct involvement of faculty members may allow sharing of what they perceive to be effective or ineffective practices is indicated by Mittler & Bers, (1994b), as cited in Cress (1996). The lack of control over the inputs into the system led to a lack of ownership and this was also indicated by the coordinators to be a reason for perceiving this process as a to-do task rather than a critical process.

Fullan (1982) and Hall and Ford (1987) suggest that it is critical that institutions consider the beliefs, attitudes, commitment and involvement of the members of the institution. According to them, if these factors are not addressed, the process of adaptation and adoption may be prolonged and this may also lead to implementation barriers. Therefore, better communication between the university-level committee would promote higher sense of involvement of faculty in the *perceived* process. This would potentially enhance coordinator ownership and reduce reluctance towards adoption of the process (Hall, et. al., 1973).

2. Additional Support in the form of training and faculty support: Coordinators strongly expressed that they had always conducted the tasks involved in the process with an external assistance. According to Surry and Ely (2002), simply spreading the importance of an innovation among the users may be insufficient to guarantee its successful implementation. The coordinators clearly articulated the need for technical training to develop the program plans, and to access data related to their programs. Gilbert and Ehrmann (2002) suggest a collection of strategies for the effective use of technology in organizations. Based on Rogers (1995) theory of diffusion of innovation, Jacobsen (1997) suggests that implementation of the innovation is highly dependant upon campus-wide planning and investment in the human infrastructure which includes training and support. Therefore, coordinator request for an independent environment for program assessment planning may

be an important step to address the adoption of the process, and for them to consider the process as more than a meager task.

According to coordinators with high experience, program assessment planning is meant to be a task of a group of people sharing the same background and perceptions about the program and its student body. Tennant and Anderson as cited in Kollenburg, (1997) suggest the use of appreciative enquiry as a model for conducting program assessment planning. According to De la Ossa, (2005), appreciative enquiry invites people to engage in building organizations that the members perceive as desirable. Instead of determining what is missing or not working, the model allows institutions to build upon their existing strengths (De la Ossa, 2005). Markova (2005) states, when attention is paid to what works, organizations may demonstrate significant positive changes.

3. Program specific data structures: All coordinators suggested that learning outcomes need to be student-centered and such learning outcomes, usually based on students' perceptions, are critical for enhancing program effectiveness. According to the researcher, such data may illuminate real problems and weaknesses in the programs. The use of student perceptions to guide program assessments is not inconceivable, as measures that enhance institutional effectiveness may not always be linear and quantitative (Wilcox, 2002).

Program specific outcomes, such as those guided by dynamic program needs were perceived by the coordinators as important. Some programs would

benefit more from observational data gathered and reported by supervising teachers. The availability of such data would allow the coordinators to plan assessments that matter to the programs. The use of qualitative forms of assessment may complement interpretations of numerical data (Cress, 1996).

Within-case discussion summary

Examining the practiced and perceived processes based on the classification of educational accountability defined by Abelman and Elmore (1999); from the three defined types of accountability, each of the discussed versions of the process of program assessment planning fits at least one mold.

The *practiced* version process focuses on institutional goals and follows the prescribed institutional effectiveness models. Abelman and Elmore describe such accountability systems as collective accountability. It is very prescribed and strongly influenced by external standards and directives, as identified by Abelman and Elmore (1999). The *perceived* process on the other hand meets the atomized accountability system's characteristics, as the coordinators are more concerned about the individual programs and students within their programs. Abelman and Elmore suggest that this attitude identifies a self-guided sense of responsibility towards their students.

Hauser (1999), as cited in Darling-Hammond (2004), suggests that there is no research-based evidence that a flawless educational accountability system exists; therefore, to say that either processes have a higher potential of constituting a successful educational accountability system would be inaccurate. However, Abelman and Elmore (1999) suggest that the presence of individual responsibility and collective expectations

within the educational systems may potentially provide significant support to external policies and mandates.

Etic (Researcher) Perspective

In the course of the study, through various interactions with the participants, and through institutional document reviews, the researcher developed a personal understanding of the process. Based on the participant perceptions and the review of literature, the process as it was practiced was identified as critical for the continuous quality improvement of the university and the college. The online method of reporting program assessment plan was in its fifth year when the study began. This consistency in employment of the system suggested to the researcher that the data generated from the process was of vital importance to the university and the college, and it was being used to meet the institutional effectiveness needs of the university.

The process was also beneficial to the college during its NCATE accreditation visit, as attested by the ARC chair. The process was also of significant importance to meet the state department of education accreditation requirements. According to the researcher, the process as it was practiced provided the university and the college with a considerable amount of data that was required to assess the effectiveness of its academic and non-academic programs.

Several strengths of the system were identified through the course of this study. The process was strongly bound by theoretical concepts such as Deming's (1986) cycle and prescribed models for institutional effectiveness. The process addressed multiple logical and quantifiable student learning outcomes (Chester, 2003). The process

considered equal involvement of every academic and non-academic unit, therefore addressing an all- encompassing institutional effectiveness assessment (Nelson, 1985). Also, according to (SACS, 1998) and (NCATE, 2000) meeting accreditation standards meant: a) Higher value of the professionals produced by the institution; b) Meeting stakeholder requirements; c) Use of meaningful measurement results to establish best practices in the professionals' fields; d) Reusability of data for various purposes, including program improvement and self assessment.

From the perspective of the individual programs, it was suggested by the ARC and the institutional documents that individual programs could use the process for program-level improvement. This claim would however be limited if according to the program coordinators, the supports and the constructs provided to them by the system were not sufficient for achieving these perceived improvements in their programs.

The *practiced* system focused on acquiring assessment data essential for institutional accreditation needs and overall program effectiveness requirements (as perceived by the system's administrators). Although the coordinators did not dispute the effectiveness of the system to meet the accreditation needs, their views about their respective program's 'effectiveness requirements' were not concurrent to those perceived by the administrators of the system. According to the researcher, this difference of opinion was significant. The researcher believes that acknowledging the individual program requirements and taking steps to meet the same would help the institution in enhancing the adaptation and adoption of the system by the program coordinators.

Recommendations

Based on coordinator perceptions and the interpretation of their responses, the researcher identified areas that required room for improvement, as far as program-level quality improvement was concerned. Researcher recommendations are as follows:

1. A difference in the practiced and the perceived capabilities of the system was evident through the within case comparisons. Additional communication to address coordinator perceptions regarding the process of program assessment planning is recommended.
2. The coordinators were passionate about their program and their students. Such inclination was classified as the characteristic of an ‘atomized accountability system’ (defined on page 133). This information requires attention and identification of coordinator perceptions would avoid misunderstanding about the process and provide periodic situation appraisals.
3. Training was indicated to be a critical need by all participants during the interviews and the focus group session. Based on the review of literature and participants’ perspectives, the researcher echoes this need. Training is recommended in terms of understanding the functionalities of the web-based tools, the importance of the process to the institution, and conducting assessment tasks specific to the program.
4. Insufficient manpower came across as a limitation of the system. This limitation was not openly stated by the coordinators nor did it arise as an emergent theme, however, the researcher finds it to be a logical

interpretation of participant responses that indicated a lack of faculty to develop high quality assessment plans. The lack of resources has the potential to eventually have an effect on the quality of the work involved. This issue could be resolved at a university-level by providing suitable additional compensations to the program coordinators.

While the *perceived* process was communicated by the coordinators as an ideal process for program assessment planning, the following were identified by the researcher as areas of concerns:

1. Need to be proactive: The coordinators concerns suggested that they desired to use this system to address their individual requirements for program improvement. Therefore, the coordinators would have to communicate their needs for program-specific measures to the ARC. However, the need for communication emerged from the data and the researcher did not have a record of such communication having taken place. Because of this lack of evidence, this need could not be interpreted as a limitation, but an area of concern and potential improvement.
2. Inter-coordinator communication: A need for such communication was addressed by the coordinators during the interviews and the focus group session. According to the researcher, such communication was not bound by any rules as far as the system was concerned. The college and the university supported a system for creating and managing forums.

This was an official resource at the discretion of the coordinators and could be employed to meet their needs for peer support.

3. Qualitative data is quantifiable: Coordinator concerns that qualitative data such as student perceptions cannot be used was debatable, according to the researcher. Prescribed qualitative data analysis processes exist that allow qualitative information received in the form of observations or exit interviews to be quantified. These quantified data sets may then be used for input into the assessment plans. However, the researcher acknowledges that this is a time consuming process and may require additional faculty resources which has already been indicated as a general limitation.
4. According to the researcher, it cannot be ignored that the concerns expressed by coordinators such as inability to use qualitative data may be a condition resulting due to lack of training procedures cannot be ignored. However, it could not be verified that they were not offered training to assist them with such tasks.

Unresolved Findings

Finding 1

A theme that emerged from the data directed by findings pertaining to the research questions highlighted the satisfaction level of the coordinators with reference to the use of the process for program improvement. According to this emergent concept, two coordinators were *dissatisfied* and two were *somewhat dissatisfied* with the process.

According to the researcher's notes, one coordinator's rated her level of satisfaction as *somewhat satisfactory*; however, the analysis of her responses through the interview and focus group transcripts did not provide a concrete direction with regards to this theme.

The research questions (goals of the study) and the review of literature was directed towards exploring the process of program assessment planning as it was practiced. Addressing coordinator satisfaction any further requires a clearer theoretical understanding of 'satisfaction' in terms of 'organizational theory/science' which is beyond the scope of this study. Therefore, the researcher cannot make any conclusive remarks regarding the coordinator satisfaction with the use of process of program assessment planning for program quality improvement.

Finding 2

One coordinator stated a factor that caused unidentifiable changes in the assessment plans. According to her, there had been a significant shuffling of responsibilities in her program during which more than one faculty member, internal and external to her program, had been responsible for generating the assessment plans over the years addressed by the study.

Program coordinators are full time personnel in the institution of higher education and may be reassigned. On reassignment, the coordinator's knowledge about the program, including contributions to program assessment planning process, is carried out of the environment. Unless procedures and processes exist to establish a knowledge transfer between the out-going and the in-coming coordinators, this change factor will continue to exist. Changes caused by such a factor may have an effect on the assessment plans and therefore on the overall program effectiveness. Identification of this change

factor by the coordinator suggested a lack of established procedures for knowledge transfer among the changing program coordinators.

According to the researcher, a practical solution for maintaining a consistent knowledge base specifically for enhancing institutional effectiveness is widely expressed in the knowledge management literature. Although this literature was not reviewed during the course of this study, the researcher would like to point out the existence of the same. Considerable research has been conducted in the field of management sciences and organizational sciences by pioneer positivist such as Michael Polanyi and research organizations such as the Gartner Research group.

Providing a brief overview of this concept, knowledge in an organization exists in two forms, explicit and tacit. Explicit knowledge is regarded as information that can be codified and transferred within the organization, while tacit knowledge is personal and cannot be transferred easily. Several knowledge management models have been studied and generated that focus on issues such as creation and sharing of knowledge through organizational channels and identification and evaluation of activities in management of knowledge.

Recommendations for future research

This study was an exploratory case study that sought to examine the process of program assessment planning; and at the same time document the perceptions of the coordinators as the primary users of the process. This type of study has been considered as a prelude to some social research (Yin, 1994).

With a better understanding of the coordinators' perspective as well as the process as practiced at the case site, it would be logical to conduct an explanatory case study that would seek causal explanations for the barriers to successful adoption of the innovation in the college, if any. Some barriers such as lack of communication and lack of training procedures have been identified through this study. A case study that identifies and explains such barriers based on the theory of diffusion of innovations (Rogers, 1995) would provide a reference for IHEs that may be considering employment of such innovations in their institution.

Ward (2002) suggested that adoption of innovation was more successful if decision makers are made aware of the concepts of Concerns Based Adoption Model (CBAM). The 'Stages of Concerns about Innovation (SOC)' questionnaire (Hall et. al., 1973) has been used in studies following CBAM. The researcher feels that with the application of CBAM, various stages of concerns of the coordinators may be determined. Such knowledge would be of significant importance to the college, university and the educational community

The researcher also feels that a trend analysis of the changes observed in program assessment plans belonging to the ten undergraduate initial teacher preparation programs would provide the college and the university a model of comparison and trend analysis specific to the institution. With a significant amount of data, statistical methods such as statistical process control and regression models may be applied to the trend data to determine the changes of various types across multiple programs. Such systems may further potentially provide data mining support and enhanced accreditation data support.

Summary of the Discussion

This study did not evaluate the efficacy of the process but simply explored the process as a case of interest. This chapter began with discussing the findings based on the research questions that guided this study. Literature relevant to the findings, were discussed followed by a brief synopsis of the researcher's perspectives about the findings. Based on these discussions the process of program assessment planning came across as fairly convincing with respect to its potential to meet its perceived outcomes. Whether the process actually met its perceived outcomes was beyond the scope of this study.

The within-case comparison findings presented two contrasting sides. One that allowed the researcher to study a process as it was practiced, and another that provided the researcher an outsider's perspective into a process perceived as 'ideal' by the users of the system. There existed literature which supported both sides, ergo literature that contradicted both sides also existed. Findings addressing both practiced and the perceived processes were discussed from the perspective of the research question, the reviewed literature, and researcher's perspective.

The *practiced* process had been established and was functional. According to the participants, the process had served the college during the NCATE accreditation visit. The innovation had already been implemented in the college, and there was at least one training individual per academic department who could assist in its function within the college. However, coordinators' needs were different and beyond those that were provided by the institution. The within-case comparisons highlighted those differences and presented the researcher with wider perspective of the process.

According to the participants, the *practiced* process did not consider student perceptions to be an integral and important aspect of assessment of academic programs. Research suggested that it was not unheard of that student perceptions were used to evaluate program effectiveness (Wilcox, 2002). Further discussion is needed to understand the role and importance of student perceptions among the wider range of data sources needed to determine the effectiveness of educational programs.

This study was undertaken without any intentions to provide a summative or formative evaluation. The intent of the study was to explore the process of program assessment planning that used a web-based reporting system to achieve its goals. The study also aimed to document the coordinator perceptions about the process as it was practiced in the case site. The researcher feels that this study will provide its readers a clear understanding of a process such as the one studied. The study aimed to assist its readers to identify the potential outcomes and the possible shortcomings prior to employing a process of institutional effectiveness in their institution of higher education.

APPENDIX A: SAMPLE PROGRAM ASSESSMENT SUBMISSION FORM

I.E. Coordinator (the person for the program or unit)

--

Participants (names of individuals who participate in assessment plan development)

Mission (Guidelines for content of mission statement.)

General description of program's or unit's assessment process:

Objective 1 (Guidelines for content and number of objectives/outcomes.)

Measures: (Guidelines for content and number of measures.)

Objective 2 (Guidelines for content and number of objectives/outcomes.)

Measures: (Guidelines for content and number of measures.)

Objective 3 (Guidelines for content and number of objectives/outcomes.)

Measures: (Guidelines for content and number of measures.)

Measurement Instrument Definitions
Curriculum / Course-related Assessment Methods

Performance-Based

- Capstone Course
- Capstone Project or Performance Evaluation
- Case Study
- Classroom Assessment
- Content Analysis
- Course-embedded Question and/or Assignment
- Evaluation of Portfolio
- Rating Scale
- Scoring rubric
- Other performance- based assessment method(s) (please specify)

Other

- Curriculum and Syllabus Analysis
- Observation (should be focused on specific program outcomes)
- Scoring of Essay
- Other method(s) (please specify)]

Examinations/Tests

Standardized

- Nationally-normed Exam
- State-normed Exam

Local

- Locally developed test
- Pre-post Test
- Other exams or test(s) (please specify)

Surveys

Institutional Level

- Graduating (Seniors or Graduate student) survey
- Alumni survey
- Student Satisfaction Survey
- First Destination Survey
- Employer survey

Local (e.g., department, program or unit) Level

- Alumni Survey
- Customer Survey
- Point of Service Survey

Other survey

- National survey(s) (please specify)
- State survey(s) (please specify)

Misc. Assessment Methods

- Advisory Board
- Focus Group
- Institutional Data
- Transcript Analysis

APPENDIX B: SAMPLE PROGRAM ASSESSMENT PLAN

Mission

Mission would be displayed here.

Review of Mission:

S - Satisfactory*

R - Revision or explanation needed

*If not applicable, click S and explain in comment box.

S R

Concise

Lists stakeholders

States purpose

States primary functions, learning objectives, and/or operations

Supports institution’s mission

Uniquely related to Academic Program or Admin. Unit

Comments on Mission Statement:

Comments would be displayed here.

Outcome 1 (SLOs) or Objective 1

would be displayed here.

Measures:

- 1.a. Measure would be displayed here.
- 1.b. Measure would be displayed here.
- 1.c. Measure would be displayed here.

Comment on Objective 1 and its Measures

would be displayed here.

Review of Objectives and Measures:

S - Satisfactory*

R - Revision or explanation needed

*If not applicable, click S and explain in comment box.

S R

Objectives:

Relates to the mission

Is measurable

Clearly describes expected student, client, or unit outcomes

Descriptions of Measures:

At least 2 approaches

Clearly describes each measurement approach

Objectives and Measures:

Identifies areas to improve

Outcome 2 or Objective 2

would be displayed here.

Measures:

- 2.a. Measure would be displayed here.
- 2.b. Measure would be displayed here.

Comment on Objective 2 and its Measures

would be displayed here.

Review of Objectives and Measures:

S - Satisfactory*

R - Revision or explanation needed

*If not applicable, click S and explain in comment box.

S R

Objectives:

Relates to the mission

Is measurable

Clearly describes expected student, client, or unit outcomes

Descriptions of Measures:

- At least 2 approaches
- Clearly describes each measurement approach
- Objectives and Measures:** Identifies areas to improve

Outcome 3 or Objective 3
would be displayed here.

Measures:

- 3.a. Measure would be displayed here.
- 3.b. Measure would be displayed here.
- 3.c. Measure would be displayed here.

Comment on Objective 3 and its Measures
would be displayed here.

Review of Objectives and Measures:
S - Satisfactory*

R - Revision or explanation needed

*If not applicable, click S and explain in comment box.

S R

Objectives:

- Relates to the mission
- Is measurable
- Clearly describes expected student, client, or unit outcomes

Descriptions of Measures:

- At least 2 approaches
- Clearly describes each measurement approach

Objectives and Measures:

- Identifies areas to improve

Objectives and Measures

S R

Overall comments on Objectives and Measures
would be displayed here.

- At least 3 objectives
- Includes targets and timeframes

Assessment Instruments

S R

Comments on Assessment Instruments
would be displayed here.

- Assessment instruments attached
- Instruments appropriate and feasible for objectives
- Sampling methods are clearly described and appropriate
- Includes sub-scores that tie back to expected objectives

Review status:

DRC Review Complete

APPENDIX C: INTERNAL REVIEW BOARD

IRB Committee Approval Form



THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): Laura Blasi, Ph.D. IRB #: 05-3093
Kedar Kulkarni, Doctoral student
(Dissertation research)
Suzanne Martin, Ph.D.

PROJECT TITLE: A case study of four years documenting the changes in the process of self-reporting academic program plans alongside the perceptions of program coordinators

- New project submission Resubmission of lapsed project # _____
- Continuing review of lapsed project # _____ Continuing review of # _____
- Study expires Initial submission was approved by expedited review
- Initial submission was approved by full board review but continuing review can be expedited
- Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

Chair
 Expedited Approval
 Dated: 11/2/06
 Cite how qualifies for expedited review: minimal risk and _____

IRB Reviewers:
 Signed: _____
 Dr. Sophia Dziegielewski, Vice-Chair

Exempt
 Dated: _____
 Cite how qualifies for exempt status: minimal risk and _____

Signed: _____
 Dr. Jacqueline Byers, Chair
 Signed: Tracy Dietz
 Dr. Tracy Dietz, Designated Reviewer

Expiration
 Date: 12/1/06

- Complete reverse side of expedited or exempt form
- Waiver of documentation of consent approved
 - Waiver of consent approved
 - Waiver of HIPAA Authorization approved

NOTES FROM IRB CHAIR (IF APPLICABLE): _____



UCF IRB Addendum/Modification Request Form

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. Attach a highlighted and a clean copy of each revised form. This Addendum/Modification Request Form may be emailed to IRB@mail.ucf.edu or mailed to the IRB Office: ATTN: IRB Coordinator, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252 or campus mail 32816-0150. Phone: 407-823-2901 or 407-882-1139, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** 1/19/2005 to IRB# 05-3093 IRB Addendum # 3174
- **PROJECT TITLE:** A case study of four years documenting the changes in the process of self-reporting academic program plans alongside the perceptions of program coordinators
- **PRINCIPAL INVESTIGATOR:** Laura Blasi, Ph.D.; Kedar Kulkarni
- **MAILING ADDRESS:** 2475 Chaddsford circle, Apt 303, Oviedo, FL 32765
- **PHONE NUMBER & EMAIL ADDRESS:** (407)334-5850, kkulkarni@mail.ucf.edu
- **REASON FOR ADDENDUM/MODIFICATION:** To better understand the prior experience(s) of the program coordinators.
- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:** I will collect some demographic information from the participants of my study. I am submitting along with this form the demographic questionnaire that I will use to collect this data. The questionnaire will be filled out on paper prior to the interviews and handed over to me at the same time. The data from completed questionnaires will be inputted into a spreadsheet and maintained securely along with the other data in the principal investigator, Dr. Laura Blasi's office, in the College of Education building.

SECTION BELOW - FOR UCF IRB USE ONLY

Approved Disapproved
 Full Board Chair Expedited

IRB Chair Signature

 IRB Member/Designated Reviewer

Date
1/23/06
 Date

APPENDIX D: PARTICIPANT CONSENT FORMS

Interview Consent Form

Please read this consent document carefully before you decide to participate in this study.

You must be 18 years of age or older to participate.

My name is Kedar Kulkarni and I am a doctoral candidate working under the supervision of faculty member, Dr. Laura Blasi. As part of a research study for my dissertation, you are invited to participate in an interview following your participation in a recent focus group session with other program coordinators in the College of Education. The purpose of this interview is to talk about the relationship between using an online system to report academic program plans as part of the program improvement process and the programmatic changes observed in the program plans.

Your participation in this interview is voluntary. You will be asked a series of questions concerning program planning and program quality assessment. I have designed the questions with guidance from my dissertation committee. The purpose of the interview is to document program coordinator perceptions of the program planning process and to understand in depth, the relationship between using an online system that is used to report academic program plans as part of the program improvement process and changes observed in the plans.

To assist in the information gathering process during the interview, the session will be recorded either using audio only, or video, depending upon your preference. The files will be stored in a secure, password protected environment until the transcripts are generated. The physical media (cassette) will be formatted (cleaned) and the digital content destroyed after the transcription. I will personally transcribe the recording and will ensure that the identity of participants and programs remain confidential.

In the transcriptions, data analysis and the reports, you and your program will be identified by an assigned code number. The list connecting your name to this number will be kept in a locked file in my faculty supervisor's office. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in any report.

There are no anticipated risks, compensation or other direct benefits to you as a participant in this focus group. There is no penalty for not participating. Any information that you provide through this session will remain confidential. Analysis of your responses will be in aggregate form and individual answers will be published using the assigned code. At any time during this interview you may refuse to answer any question. You may also request at any time, that the recording device be stopped or withdraw from participating in the project.

If you have any questions about this research, please contact Kedar Kulkarni (407)334-5850 or by email (kulkarni@mail.ucf.edu) or my dissertation advisor, Dr. Laura Blasi in (department) at (407)823-1761 or by email at lblasi@mail.ucf.edu. This research has been reviewed and approved by the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, Orlando Tech Center, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252. The telephone number is (407) 823-2901.

If you agree to participate in this session, please check the appropriate boxes below & sign and date this copy. A second copy is provided for your records.

I have read the procedure described above. _____

I voluntarily agree to participate in this project and have received a copy of this description. ____
I agree to being recorded (audio): ____ I do not agree to being recorded (audio): ____
I agree to being recorded (video): ____ I do not agree to being recorded (video): ____

Printed Name: _____ Signature: _____ Date: _____

Focus Group Consent Form

Please read this consent document carefully before you decide to participate in this study.

You must be 18 years of age or older to participate.

Project title: A case study of four years documenting the changes in the process of self-reporting academic program plans alongside the perceptions of program coordinators

My name is Kedar Kulkarni and I am a doctoral candidate working under the supervision of faculty member, Dr. Laura Blasi. As part of a research study for my dissertation, you are invited to participate in a focus group session with other program coordinators in the College of Education. Your participation in this session is voluntary. Session participants will be asked a series of questions concerning program planning and program quality assessment. I have designed the questions with guidance from my dissertation committee. The purpose of the focus group is to document program coordinator perceptions of the program planning process. This activity will allow me to understand the relationship between using an online system that is used to report academic program plans as part of the program improvement process and changes observed in the plans.

To assist in the information gathering process during the focus group session, the session will be recorded either using audio only or video depending upon your preference. The files will be stored in a secure, password protected environment until the transcripts are generated. The physical media (cassette) will be formatted (cleaned) and the digital content destroyed after the transcription. I will personally transcribe the recording and will ensure that the identity of participants and programs remain confidential.

In the transcriptions, data analysis and the reports, you and your program will be identified by an assigned code number. The list connecting your name to this code will be kept in a locked file in my faculty supervisor's office. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in any report.

There are no anticipated risks, compensation or other direct benefits to you as a participant in this focus group. There is no penalty for not participating. Any information that you provide through this session will remain confidential. Analysis of your responses will be in aggregate form and individual answers will be published using the assigned

code. At any time during the focus group session, you may refuse to answer any question. You may also request at any time, that the recording device to be stopped or withdraw from participating in the project.

If you have any questions about this research, please contact Kedar Kulkarni via phone at (407)334-5850 or by email (kulkarni@mail.ucf.edu) or my dissertation advisor, Dr. Laura Blasi in (department) at (407)823-1761 or by email at lblasi@mail.ucf.edu. This research has been reviewed and approved by the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, Orlando Tech Center, 12443 Research Parkway, Suite 302, Orlando, FL 32826-3252. The telephone number is (407) 823-2901.

If you agree to participate in this session, please check the appropriate boxes below & sign and date this copy. A second copy is provided for your records.

I have read the procedure described above. _____

I voluntarily agree to participate in this project and have received a copy of this description. _____

I agree to being recorded (audio): _____ I do not agree to being recorded (audio): _____

I agree to being recorded (video): _____ I do not agree to being recorded (video): _____

Printed Name: _____

Signature: _____

Date: _____

APPENDIX E: INTERVIEW AND FOCUS GROUP SESSION PROTOCOL

Interview Protocol

- Fill out the Demographic Questionnaire - tell me a little about your program
- 1. Are you involved in the process of program planning?
- 2. Have you been a part of such a process in your prior experience?
 - a. Is the present process similar/different from any prior experience?
 - b. What is the difference/similarity?
 - c. Do you prefer one over the other? Why?
 - d. Could you elaborate a little about your personal experience so far in terms of the process of program planning?
- 3. What is your role in the process at the College of Education?
- 4. Who all are involved as far as your program is concerned?
- 5. How are program plans generated? Can you provide me with an approximate step-by-step process?
- 6. What is the rationale according to you for the annual exercise of generating program plans?
 - a. If IE is mentioned -What is IE?
 - b. If CQI is mentioned -What is CQI?
 - c. If neither is mentioned PROBE for IE
 - i. What is IE
 - ii. How is IE connected with program planning?
- 7. Do you use any tool in this process? What tool?
 - a. *PROBE online form* - What do you think about this tool?
 - b. Do you use this tool? How do you use this tool?
- 8. Have you used any other tool for similar tasks before (at any prior institutions or prior assignments)?
 - a. IF Yes, How different is that tool from the present?
- 9. Have you reviewed the changes that I have observed during my initial analysis?
 - a. Do you agree/disagree with any changes that I have observed?
- 10. What according to you are the reasons behind the observed changes in program plans?
 - a. PROBE – State/Federal Mandates
- 11. Has the method of self reporting program plans guided any changes observed?
- 12. On the scale of 0-5 (0 = Least; 5 = Most), how would you rate/attribute the observed changes to the process of self reporting the program plans?
 - a. IF ≥ 3 - Could you elaborate with two examples – indicate with specific changes.
 - b. IF < 3 – What would you associate the changes with? With two examples – indicate with specific changes?
- 13. Has the method of reporting using web-based system played in the observed changes? If yes, what?
- 14. Has the method of electronic submission of program plans guided any changes observed?
 - a. If yes, please provide examples where changes may be attributed to the use of electronic submission.

15. Based on your experience, is the method of reporting program plans beneficial or detrimental to the program in the long run?
 - a. What according to you are the limitations, if any, of using the method of reporting program plans using an online form?
 - b. What according to you are the benefits, if any, of using the method of reporting program plans using an online form?
16. Please provide 5 critical components within your program that are annually executed with planning.
17. On the scale of 0-3, '0' being not satisfactory, '1' being somewhat Unsatisfactory, '2' being somewhat satisfactory and '3' being satisfactory, how would you rate your satisfaction with the use process of program assessment planning for program improvement?
18. Can you provide at least four suggestions/recommendations in order to improve method and/or the process of generating program plans which would be instrumental in improving the outcomes of the program assessment plans and therefore the Initial teacher preparation programs?
19. Is there anything more that you would like to tell me about this process?
20. Do you think I should report any specific concerns/comments through my study above and beyond the ones discussed during this interview, that you feel will be helpful for the readers of this study who plan to implement a similar process in their Institution?

Focus Group Discussion Topics

1. Please describe what you feel is the nature and purpose of program assessment planning
2. How would you think it differs from the current nature and purpose of program assessment planning as it is practiced in the College?
3. As a program coordinator, discuss one instance when the assessment results pertaining to the submitted program plans had an effect (good or bad) on your program?
4. "Planning program assessments is an integral part of program planning" - This is an excerpt from an interview session. Discuss the characteristics of a process that meets the needs of your program in terms of assessment planning?
5. "This technology does not help me at all for generating plans as such" - This is an excerpt from an interview session. What changes would you suggest for the system of online reporting of program plans?
6. *"There may be areas of interest that we may not be reporting through these assessment plans because of the nature of the task where we simply look at the*

previous year's information and make the changes if necessary. So we are limiting ourselves to the plans that have demonstrated success in the prior year." [these are the commonly observed objectives across all five coordinator transcripts] Could you provide at least two objectives/outcomes that you would like to measure and report?

7. Some programs are not data driven according to a few coordinators. Could you elaborate and discuss this statement made by a coordinator?
8. "There is a missing link between the reports generated and the plan submitted; and I feel a disconnect between the actual report that matters to someone other than I". What is your insight on this statement made by a coordinator?
9. There is more emphasis on the product than on the process. What are the next steps needed to benefit your program and make this exercise more contributing to the system.
10. How would you guide a hypothetically speaking - new program coordinator, to ensure that the system is used more effectively by the person?

APPENDIX F: INTERVIEW QUESTIONS MAPPING TO TOPICS OF INTEREST

Interview Questions	Topic of Interest
Fill out the Demographic Questionnaire - tell me a little about your program	Non-directive approach to begin the interviews.
<p>Are you involved in the process of program planning? Have you been a part of such a process in your prior experience? Is the present process similar/different from any prior experience What is the difference/similarity? Do you prefer one over the other? Why? Could you elaborate a little about your personal experience so far in terms of the process of program planning?</p>	Non-directive approach to begin the interviews; Coordinator Experience, current and in the past.
What is your role in the process at the College of Education?	How involved is the coordinator?
<p>Who all are involved as far as your program is concerned? How are program plans generated? Can you provide me with an approximate step-by-step process?</p>	Are there any specific guidelines and are they followed for plan development?
<p>What is the rationale according to you for the annual exercise of generating program plans? If IE is mentioned -What is IE? If CQI is mentioned -What is CQI? If neither is mentioned PROBE for IE What is IE; How is IE connected with program planning?</p>	Coordinator perceptions about the process; Coordinator perceptions about IE as a part of this process according to the coordinators
<p>Do you use any tool in this process? What tool? <i>PROBE online form</i> - What do you think about this tool? Do you use this tool? How do you use this tool? Have you used any other tool for similar tasks before (at any prior institutions or prior assignments)? IF Yes, How different is that tool from the present?</p>	Coordinator perceptions about the tool.
<p>Have you reviewed the changes that I have observed during my initial analysis? Do you agree/disagree with any changes that I have observed? What according to you are the reasons behind the observed changes in program plans? PROBE – State/Federal Mandates</p>	Verification for accuracy of document review and explanation for the changes (Research Q. 3)
<p>Has the method of self reporting program plans guided any changes observed? On the scale of 0-5 (0 = Least; 5 = Most), how would you rate/attribute the observed changes to the process of self reporting the program plans? IF ≥ 3 - Could you elaborate with two examples – indicate with specific changes. IF < 3 – What would you associate the changes with? With two examples – indicate with specific changes?</p>	Coordinator perceptions about the changes; Research Q. 2 (Use of plans); Research Q. 3 (Relationship between changes)
<p>Has the method of reporting using web-based system played in the observed changes? If yes, what? Has the method of electronic submission of program plans guided any changes observed? If yes, please provide examples where changes may be attributed to the use of electronic submission. Based on your experience, is the method of reporting program plans beneficial or detrimental to the program in the long run? What according to you are the limitations, if any, of using the method of reporting program plans using an online form? What according to you are the benefits, if any, of using the method of reporting program plans using an online form?</p>	Research Q. 4; Coordinator perceptions about the online reporting method.

<p>Please provide 5 critical components within your program that are annually executed with planning.</p>	<p>Coordinator perceptions about the changes; Research Q. 2 (Use of plans)</p>
<p>On the scale of 0-3, '0' being not satisfactory, '1' being somewhat Unsatisfactory, '2' being somewhat satisfactory and '3' being satisfactory, how would you rate your satisfaction with the use process of program assessment planning for program improvement? Can you provide at least four suggestions /recommendations in order to improve method and/or the process of generating program plans which would be instrumental in improving the outcomes of the program assessment plans and therefore the Initial teacher preparation programs?</p>	<p>Coordinator perception about use of the overall process.</p>
<p>Is there anything more that you would like to tell me about this process? Do you think I should report any specific concerns/comments through my study above and beyond the ones discussed during this interview, that you feel will be helpful for the readers of this study who plan to implement a similar process in their Institution?</p>	<p>Coordinator perceptions about the overall process</p>

APPENDIX G: DEMOGRAPHIC QUESTIONNAIRE

Name: _____ Program: _____

1. Highest Level of Education you have completed?
 - a. Masters
 - b. Education Specialist
 - c. Doctor of Education
 - d. Doctor of Philosophy

2. Year of your first assignment as faculty in an institution of higher education?

3. Year you joined College of Education at the University of Central Florida (UCF)?
 - a. Before 2000
 - b. 2000
 - c. 2001
 - d. 2002
 - e. In /After 2003

4. Your rank in the College of Education, UCF, when you joined the college?
 - a. Instructor
 - b. Associate Professor
 - c. Assistant Professor
 - d. Professor

5. Your rank at present in the College of Education, UCF,?
 - a. Instructor
 - b. Associate Professor
 - c. Assistant Professor
 - d. Professor

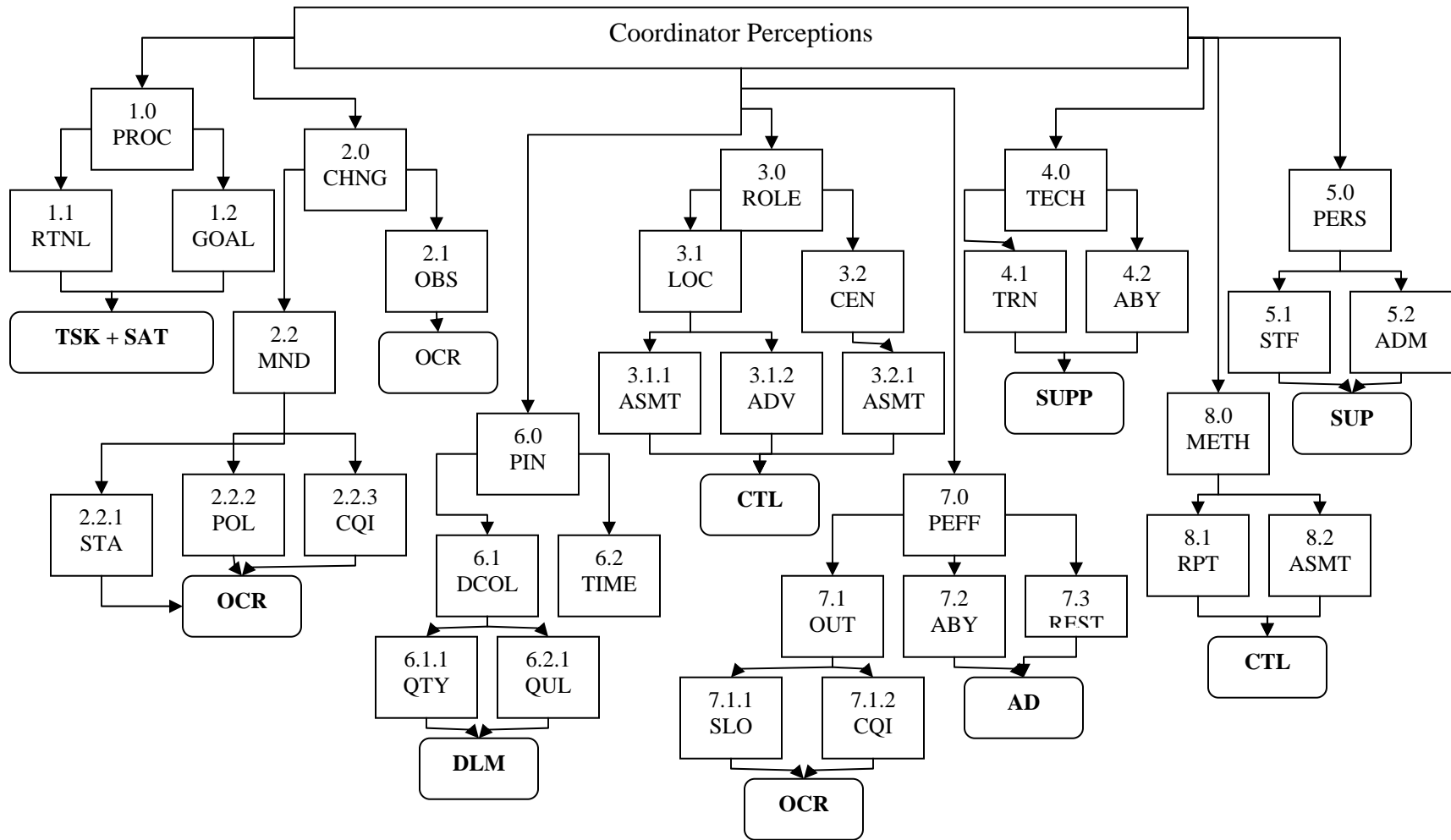
6. Number of faculty members in your undergraduate teacher preparation program (Approximately)?
 - a. < 5
 - b. 5-8
 - c. 9-12
 - d. > 12

7. Year in which you were appointed as the program coordinator for your undergraduate teacher preparation program?
 - a. Before 2000?
 - b. 2000
 - c. 2001
 - d. 2002
 - e. In /After 2003

8. Years of experience as a program coordinator in other institutions of higher education prior to the present assignment at the College of Education, UCF?
 - a. < 1
 - b. 3-5
 - c. 1-2
 - d. > 5

APPENDIX H: CODE TREE, CODE STRUCTURE AND CODE DESCRIPTIONS

Code Tree



Code Structure

PROCESS: PROC
 RATIONALE: RTNL –
 TASK: TSK
 GOAL: GOAL –
 TASK: TSK
PARTICIPANT ROLE IN PROCESS: ROLE
 LOCAL: LOC
 ASSESSMENT: ASMT –
 CONTROL: CTL
 ADVISING: ADV
 CENTRAL: CEN
 ASSESSMENT: ASMT –
 CONTROL: CTL
METHODOLOGY: MET
 REPORT: RPT
 PLANNING: PLN
CHANGE: CHG
 OBSERVATIONAL: OBS
 CHANGE RATIONALE: OCR
 MANDATORY: MND
 STATE: STA –
 CHANGE RATIONALE: OCR
 POLICY: POL –
 CHANGE RATIONALE: OCR
 CQI: CQI –
 CHANGE RATIONALE: OCR
TECHNOLOGY: TECH
 TRAINING: TRN –
 SUPPORT: SUPP
 ABILITY: ABY –
 SUPPORT: SUPP
STAFF: STF - SUPPORT
PROCESS EFFECT
 OUTCOMES: OUT
 LEARNING OUTCOMES: SLO –
 CHANGE RATIONALE: OCR
 CQI: CQI –
 CHANGE RATIONALE: OCR
 ABILITY: ABY –
 ADOPTION: AD
 RESISTANCE: RES –
 ADOPTION: AD
 TIME: TME
 ADOPTION: AD
PROCESS INPUTS
 DATA COLLECTION: DCOL
 QUANTITATIVE: QTY
 DATA LIMITS: DLM
 QUALITATIVE: QUL
 DATA LIMITS: DLM

Code Descriptions

Coding is applied to naturally occurring patterns within the transcripts and field notes. All of the transcript text was assigned to one of the categories based on the description provided in the categories in the table below.

Primary Categories directed by Research Questions:

Coding Categories	Description
Perceived effect vs actual effect Code: PAF	The primary reason for development of the process of reporting program assessment plans. The perceived effects based on the primary goals and reasons for the process and the actual effects as witnessed and indicated by coordinators.
Coordinator satisfaction regarding the use of the process (data and the program assessment plans). Code: SAT	Overall satisfaction with the process, not satisfaction with specific activities. Satisfaction with the value and relationship with the process. Expectation and satisfaction with the ability of the system to perform to meet program needs. The willingness and capability to perform as desired and directed. The use of the plans and data.
Adoption of innovation Code: AD	Willingness to adopt the innovation and adapt to the changes that come along with it. Resistance to adopt innovation because of specific reasons.
Observed changes rationale Code: OCR	The relationship between the observed changes and the process. Relationship of method of reporting assessment plans with observed changes.
Impact of Technology Code: TEC	Changes guided by the availability of technology.

Secondary Categories that Emerged from the data.

Task or Process? Code: TOP	Program planning is looked upon as a task at hand and to be completed as opposed to it being perceived as an important critical process integral to program planning.
Control factor and Ownership of the process Code: CTL	Inability of the coordinator to address the underlying needs of the system as directed by the directors of the system. Lack of control over programmatic activities. Loss of value for the process over time. Coordinator's ability to monitor assessment willingly. Ability to modify, and conceptually validate the presence or absence of system structures. Degree of involvement in the decision making with respect to the use of the process.
Support structure Code: SUPP	Availability of support. Ability to use support. Inclination to use the support and ask for the unavailability of the same.
Data Limitations CODE: DLM	Inability to perform because of role demands and commitment concerns.

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