5-21-2010

University Staff Perspectives on Change Management Strategies in Student Information System Adoption

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ACCEPTANCE

This dissertation, UNIVERSITY STAFF PERSPECTIVES ON CHANGE MANAGEMENT STRATEGIES IN STUDENT INFORMATION SYSTEM ADOPTION, by WINNIE W. TSANG-KOŞMA, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

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ABSTRACT

UNIVERSITY STAFF PERSPECTIVES ON CHANGE MANAGEMENT STRATEGIES IN STUDENT INFORMATION SYSTEM ADOPTION
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The process of information technology adoption and use is critical to deriving benefits of information technology. Thus, one of the most challenging issues in information systems research is to understand how people have experienced the adoption process that may lead to insights to why they accept or reject the information technology (Davis, Bagozzi, & Warshaw, 1989). There are many factors affecting the adoption process of information technology innovations within an organization. To ensure successful adoption of information technology innovations, organizations develop a planned approach to change and employ change management strategies such as communication, training, and functional users support groups to serve as leverage for the adoption.

The purpose of this study informed by phenomenological perspectives was to better understand the lived experiences of university staff in the Student Information System (SIS) adoption process. By following Moustakas' (1994) four primary steps in phenomenological research and his systematic approach, the inductive data analysis process assists in revealing the essence of Big University (Big U) (pseudonym) staff's lived experiences of the change management strategies put in place for the SIS adopting process via long, in-depth interview sessions.

The 24 participants were grouped by criteria profiles with the textural descriptions

clustered by the ten emergent themes. Structural descriptions for each participant were developed based on the textural descriptions. The validated textural and structural descriptions were then used to develop the composite textural-structural descriptions. The composite textural-structural description for each criteria profile integrated the experiences of all the individual participants within the criteria profile. The validated composite textural-structural descriptions were then used to develop the synthesis textural-structural descriptions to reveal the universal experiences of all the participants. Thus, this study provided a detailed account of the Big U staff's experiences which revealed how the change management strategies informed their decision in adopting and using the SIS.

The universal experiences indicated that the success of the Big U SIS adoption and use after the initial SIS implementation was greatly enhanced by these planned change efforts. Thus, Big U upper administration declared the success of the SIS implementation when the project was completed on time and under budget. However, while the universal experiences reflected the success of the initial SIS adoption and use due to the planned changed efforts, a very different picture emerged for the SIS post-implementation for unit functions on-going support.

UNIVERSITY STAFF PERSPECTIVES ON CHANGE MANAGEMENT STRATEGIES IN STUDENT INFORMATION SYSTEM ADOPTION

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Winnie W. Tsang-Koşma

A Dissertation

Presented in partial Fulfillment of Requirements for the
Degree of
Doctor of Philosophy
in
Instructional Technology
in
the Department of Middle-Secondary Education and Instructional Technology
in
the College of Education
Georgia State University

Atlanta, GA
2010

DEDICATION

This dissertation is dedicated
in memory of my father,
Liu On Tsang.

ACKNOWLEDGEMENTS

There are so many individuals who helped me with my journey to completing this dissertation. My sincerest appreciation to:

My Committee Chairperson: Dr. Mary Shoffner – Thank you so much for your support and insights throughout this entire process. Your guidance was invaluable.

My Committee members: Dr. Laurie Dias, Dr. Charles Wang, and Dr. Barbara Reilly – Thank you so much for your feedback and support. Your input was indispensable.

My dissertation coach: Dr. Skip Atkinson – Thank you so much for your help and guidance to get me through my dissertation defense.

My debriefers: Dr. Elizabeth Firestone and Roxanne Russell – Thank you so much for reading all the transcriptions, validating my data analysis processes, and proofreading my dissertation. I am grateful for your willingness to take the time from your busy schedules to help me.

My participants: Thank you so much for your willingness to share your experiences with me for this research study and for taking the time to validate the research findings.

My boss: Cherise Peters - Thank you for being the best boss ever and for your support.

My work family: Thank you for your moral support and cheering me on along the way.

My husband: Mazlum Koşma – Thank you for your love and encouragement as well as for believing in me. I could not have done this without you. Seni seviyorum.

My daughter: Eda Koşma – Thank you for being self-sufficient and for being the best auto-pilot daughter. I know you can do it all by yourself.

My in-laws: Şefika Koşma, Zühtü and Mualla Çetindağ – Thank you for being there for Maz and Eda when I could not be there and for all the wonderful meals you sent our way.

My mother and siblings: Nancy Tsang, Vivian Tsang, Patrick Tsang, and Kitty Quan. Thank you for your long distant support and for asking when and not if I will be done. Well, I am finally done!

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LIST OF ABBREVIATIONS

Big U – Big University, pseudonym for the research site

CBAM - Concerns-Based Adoption Model

CSFs – Critical Success Factors

ERP – Enterprise Resource Planning

FUSG – Functional Users Support Group

IC – Innovation Configuration, third dimension for the Concerns-Based Adoption Model

IT – Information Technology

LoU – Level of Use, second dimension for the Concerns-Based Adoption Model

SoC – Stages of Concern, first dimension for the Concerns-Based Adoption Model

SIS – Student Information System

TAM – Technology Acceptance Model

TRA – Theory of Reasoned Action

CHAPTER 1

INTRODUCTION

The process of information technology adoption and use is critical to deriving benefits of information technology. Thus, one of the most challenging issues in information systems research is to understand how people have experienced the adoption process that may lead to insights to why they accept or reject the information technology (Davis, Bagozzi, & Warshaw, 1989). There are many factors affecting the adoption process of information technology innovations within an organization. To ensure successful adoption of information technology innovations, organizations develop a planned approach to change and employ change management strategies such as communication, training, and functional users support groups (FUSGs) to serve as leverage for the adoption.

Background of the Study

Enterprise Resource Planning (ERP) systems are commonly used by large businesses worldwide. According to Esteves & Pastor (2001), "ERP systems are software packages composed of several modules, such as human resources, finance, and production, providing cross-organization integration of data through embedded business processes" (p.2). Since the 1980s, institutions of higher education have turned to ERP systems as a means of replacing existing management and administrative computer systems such as the Student Information System (SIS). Koch and Wailgum (2005) stated

“ERP attempts to integrate all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs” (p.1). This integration benefit drives many organizations to choose ERP systems; however, they are potentially a costly and high-risk integration strategy. For instance, as part of the ERP systems, SIS includes a wide range of functions such as admissions, student records, registration, financial aid, and student accounts. The SIS is built with generic users in mind and seldom translates easily across the boundaries of all departments with wide ranges of functions. Among the many issues ERP systems raise, of particular concern to administrators is the choice between conducting expensive customization work on standard solutions or undergoing unwanted organizational change in adapting their practices to models of work and organizational processes embedded in the software (Davenport, 2000). Thus, ERP systems are complex, expensive, and usually require changes in the organizational culture in order to be implemented successfully (Davenport, 2000).

According to the research conducted by King (2002) surveying nearly 500 higher education institutions, the results showed that “implementing student information systems are considered to be significantly more difficult than implementing either financial or human resources systems” (p.5). Since ERP attempts to integrate and link together the whole range of functions across an organization, the larger the institution, the more difficult the implementation. King (2002) stated the SIS implementation timeline usually takes two years. However, nearly 20 percent of the implementers indicated taking four or more years (King, 2002). For higher education institutions, one of the benefits of ERP systems is removing the silo approach to information where every college and department

owns and maintains its own databases (King, 2002). Conversely, it is precisely this integration benefit that creates much of the unwanted organizational change. King (2002) affirmed, "resistance to change and internal expertise -- whether reflected in a lack of understanding of the software's capabilities, or alignment of software to business practices - are rated among the top barriers for SIS implementation among higher education institutions" (p.5). In addition, King, Kvavik, and Voloudakis (2002) cautioned colleges and universities to "consider ERP implementation a 'people' project more than a technology project. The changes required in organizations, processes, training, support, and collaboration make ERP implementations highly people-intensive" (p.10).

Statement of the Problem

Information system implementation research indicated most implementation failures are not the victims of flawed technology, but rather organizational- and people-related issues (Adams, Berner, & Wyatt, 2004; Hirschheim & Newman, 1988; Jiang, Muhanna, & Klein, 2000; Klaus, 2006; Kwahk & Lee, 2008). Thus, user resistance is an important issue in SIS implementation and adoption making it essential to plan for strategies to reduce resistance in end-users. According to Klaus (2006), organizations need to analyze user resistance at the individual level in order to determine the underlying reasons for user resistance and the types of resistant behaviors they invoke. Furthermore, surveys and experiments show users' behavioral intention depends on their attitude (Kwahk & Lee, 2008, Davis et al., 1989).

According to King et al. (2002), "higher education's collective investment in ERP systems may exceed $5 billion to date, placing it among the academy's most significant information technology investments of any kind" (p.2). Given that resistance to change is

one of the pervasive barriers to SIS implementation, the process of implementation and adoption is critical in order to derive the benefits of the costly ERP systems (King et al., 2002). User resistance at Big University (Big U) (pseudonym) to the new SIS was especially high due to the much favored legacy system. The legacy system was a homegrown system built to the specifications of its operational business processes and staff's needs; thus, the legacy system was favored by all Big U users.

There are many factors affecting the adoption of innovations within an organization. Change management strategies such as communication, training, and functional users support groups may serve as leverage to sway users' attitudes and to ensure adoption and use of the SIS. Consequently, it is important to understand the lived experiences of university staff in the SIS adoption process at Big U where staff have undergone similar change management strategies.

Purpose of the Study

The purpose of this study informed by phenomenological perspectives was to better understand the lived experiences of university staff in the Student Information System (SIS) adoption process.

The phenomenological perspectives of this study focused on describing how people experience their world and what it is like to be in that world (van Manen, 1990). Given that the past informs the present and both inform the future of adoption, by revealing and understanding the meaning of staff's lived experiences, we inform the present in the hope of gaining insight about change management strategies for the future in information systems adoption (Moustakas, 1994, van Manen, 2007; Vickers, 2002).

Justification of the Study

The change management strategies for the SIS adoption were put in place for the initial SIS implementation eight years ago at Big U. Because of the constant on-going upgrades that produce system functions changes as well as additional new functions, the change management strategies were kept in place and are still in use today. Thus, the change management strategies have been in place long enough to allow for analyzing the lived experiences of university staff that undergo them, but have not been in place so long that staff are unable to remember undergoing the change management strategies during the initial implementation.

This research study is conducted through phenomenological lens to examine the historical event perspectives because, as researchers, we cannot overcome what we do not understand. Edmund Husserl, a German philosopher, introduced phenomenology as a science of human experience. The intent of phenomenology is to make explicit and to seek universal meaning about a phenomenon of interest (van Manen, 1990). According to Husserl, a lived experience lasts as long as it is present in consciousness (as cited by Bernet, 1995). Bernet (1995) stated:

> The greatest discoveries of Husserl is precisely that this present of the lived experience is not limited to an instantaneous point, to a punctual now, and that the duration of the lived experience is more than a simple addition of separate instants. Husserl says that the apprehension of the present now of a lived experience is always complemented by the apprehension of its elapsed present and of its present to come (p.14).

Given the past informs the present and both inform the future of adoption, by revealing and understanding the meaning of staff's lived experience, this study informs the present in the hope of gaining insight about change management strategies for the

future in information systems adoption (Moustakas, 1994, van Manen, 2007; Vickers, 2002).

According to Davis, Bagozzi, and Warshaw (1989), performance gains of the users are often obstructed by the unwillingness to accept and use the available system. The unwillingness to accept the available system may lead to unwanted actions by users. It may also lead to sabotaging computer equipment, being absent or late to work, verbally disparaging the system, not using the new system as well as continuing to use the old system, and tampering with the data (Adams et al., 2004). Understanding why people accept or reject information technology is one of the most challenging issues in information systems research (Davis et al., 1989). By examining how staff at Big U experienced the SIS adoption process, the present study may help in understanding how change management strategies inform staff's decision to accept or reject the SIS adoption.

Research Question

Based on the above research purpose, this study sought answers to the following research question and sub questions:

What are the lived experiences of staff in the SIS adoption process at the Big University (Big U) (pseudonym)?

To elicit answers to the above main question, this study was guided by the following sub questions:

Research Sub Questions

1. What are the lived experiences for staff who received communication about the SIS?

2. What are the lived experiences for staff who received training for the SIS?
3. What are the lived experiences for staff who participated in a SIS functional users support group?
4. What are the implications that can be drawn from the participants' lived experiences?

In order to clearly explain the key terms which may have a special meaning in this study, the following operational definition of terms assigned a meaning to a term by specifying how the terms applied in the particular context of this study.

Operational Definitions of Terms

Attitude – "A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935). For the purpose of this study, attitude is defined as the feeling of favorableness or unfavorableness toward the SIS adoption.

Change management - In the field of organization development, change management is the process of developing a planned approach to change in creating and sustaining effective organizations. It entails the human aspect of change at an organizational level (Burke, 1993). For the purpose of this study, change management is defined as the planned change efforts enacted in order to influence staff's decisions in the SIS adoption.

Change management strategies – For the purpose of this study, change management strategies are tools used in the change management efforts for the SIS implementation and adoption at the University. The tools examined include communication, training program, and functional users support groups (see later description).

Communication – For the purpose of this study, communication is defined as the process of conveying information to staff about the SIS implementation and upgrades with the use of the SIS website, information sessions, and face-to-face meetings.

Enterprise Resource Planning (ERP) system – For the purpose of this study, ERP is defined as a computer software system that uses a unified database to integrate processes and store data for various functions found throughout the organization.

Functional Users Support Group (FUSG) – For the purpose of this study, functional users support group is defined as a group of employees that establishes social networks for its members by providing mutual support in relating personal experiences in using the Student Information System; and by providing and sharing information about the functions they use within the SIS. Three of the established FUSGs at Big U are: FUSG1, FUSG2, and FUSG3 (pseudonyms).

Heavy user – For the purpose of this study, a heavy user is defined as an employee who uses either the SIS or legacy system daily to view information and update data for main functional units.

Legacy system - For the purpose of this study, a legacy system is a homegrown system built to the specifications of the organization's operational business processes and staff's needs.

Light user – For the purpose of this study, a light user is defined as an employee who uses either the SIS or legacy system a few times per week to view information and/or update minimal data.

Lived experiences – For the purpose of this study, lived experiences is defined as the descriptions of personal encountering or undergoing an event and how these instances are

perceived, understood, and remembered by the participants who experienced the phenomenon (van Manen, 1990). This study will use van Manen's definition.

Staff – For the purpose of this study, staff is defined as employees at the university who perform administrative tasks, and are not classified as faculty.

Staff tenure – For the purpose of this study, staff tenure is defined as the length of time staff have been employed by the university.

Student Information System (SIS) – For the purpose of this study, SIS is a software application for educational establishments to manage student data (O'Leary, 2000). This study will use O'Leary's definition.

SIS adoption – For the purpose of this study, SIS adoption is defined as the actual use of the SIS system by an employee to perform job functions with adapted best practice processes for the SIS.

Training program – For the purpose of this study, a training program is defined as functional end-users training for staff to facilitate learning and skills necessary to use the SIS effectively.

Unit – For the purpose of this study, unit represents a group of staff performing the same job functions located in one or multiple departments across the Big U campus.

Upper administration – For the purpose of this study, upper administration at the university level indicates a position of Vice President and above. Upper administration at the college level indicates a position of Assistant Dean and above.

Summary and Overview

According to information system implementation research, most implementation failures are contributed to by organizational- and people-related issues (Adams, Berner,

& Wyatt, 2004; Hirschheim & Newman, 1988; Jiang, Muhanna, & Klein, 2000; Klaus, 2006; Kwahk & Lee, 2008). Thus, understanding why people accept or reject information technology was one of the most challenging issues in information systems research (Davis et al., 1989).

The goal of this study was to better understand the lived experiences of university staff in the SIS adoption process. According to Munhall (1994), "if we understand the meaning of a behavior or an experience, we are certainly on surer footing for doing whatever might be more useful" (p.33). The phenomenology inquiry approach adds richness and depth to the understanding of how individuals respond to change management strategies. This understanding is achieved through rigorous analysis of in-depth, semi-structured interviews and the reflections of the staff that have undergone the change management strategies for the SIS implementation and upgrades.

This study is divided into twelve chapters including this chapter where the introduction, background of the study, statement of the problem, purpose of the study, justification of the study, research question and sub questions, and the operational definitions of terms were presented. Chapter 2 includes a review of the literature that helped the researcher to develop a better understanding of the problem and research in the area that informs the study. Chapter 3 discusses the research study design, namely, the research study informed by phenomenology perspectives, the research setting, the researcher background and role, data collection and triangulation methods, participants' selection, data analysis techniques, and the rationale underlying the choice of research method.

Chapter 4 explains the data presentation format of the present research study

where data are grouped by five criteria profiles. Within each criteria profile, data are presented according to ten emergent themes. Chapters 5 through 9 present the textural and structural descriptions, following the method of Moustakas for data analysis, for each individual participant grouped by five criteria profiles. The textural description of each participant is constructed by elaborating a detailed and accurate account of the experience. Examples of the participant's narrative from the interview transcriptions are included in the textural descriptions to illustrate the emerged invariant constituents themes. The structural description of the experience for each participant, as it was lived by participants, is then written with the use of the textural descriptions of the phenomenon.

Chapter 10 presents the composite textural-structural descriptions where the textural-structural descriptions are integrated into participants' universal experiences for each of the five criteria profiles. Chapter 11 presents the synthesis of composite textural-structural descriptions where the composite textural-structural descriptions for all five criteria profiles are integrated into participants' universal experiences. The final chapter, chapter 12, discusses the research findings and recommendations for future research as well as concluding thoughts of the researcher for the research study.

CHAPTER 2

LITERATURE REVIEW

Introduction

Given that resistance to change is one of the pervasive barriers to SIS implementation, organizations must appreciate the difficult process of Enterprise Resource Planning (ERP) system implementation and the crucial knowledge in change management as well as the complex adoption process in order to derive the benefits of the costly ERP systems. Therefore, this literature review is divided into four main sections: (a) Enterprise Resource Planning system implementation, Critical Success Factors and Change Management, (b) Diffusion of Innovation Model, (c) Concerns-Based Adoption Model, and (d) Technology Acceptance Model.

Enterprise Resource Planning Implementation, Critical Success Factors, and Change Management

As stated by Motwani, Subramanian, & Gopalakrishna (2005):

> ERP have a reputation for costing a lot of money and providing meager results, because the people who are expected to use the application do not know what it is or how it works. When ERP software fails, it is usually because the company did not dedicate enough time or money to training and managing culture-change issues (p.530).

This sentiment is evident throughout the ERP implementation literature. ERP implementations are complex because they usually involve large-scale organizational

changes in transition to new systems and business processes leading to significant implications on the organization's management model, structure, culture, and above all, people (Esteves & Pastor, 2001). As Davenport (2000) said, "an ERP is not a project; it is a way of life" (p.18).

Garcia-Sanchez & Perez-Bernal (2007) and Nah, Zuckweiler, & Lah (2003) conducted extensive literature reviews on critical success factors (CSFs) for ERP implementation based on factors identified in the nine and ten selected papers respectively. "A list of 14 CSFs was selected and is considered to represent the largest, clearest, and most significant subset of all the factors analyzed in the prior studies" (Garcia-Sanchez et al., 2007, p.295). According to Garcia-Sanchez et al. (2007) and Nah et al. (2003) the following four questions were used as a guide for the CSFs selection process:

1. How frequently did factors appear?
2. How clear were their descriptions?
3. How well justified were they?
4. How relevant have they been found?

The CSFs selected by Garcia-Sanchez et al. (2007) and Nah et al. (2003) are as followed:

1. Top management support.
2. Business process reengineering.
3. Project management.
4. Project champion.
5. End users involvement.
6. Training and support for users.

7. Having external consultants.
8. Change management plan.
9. ERP system selection.
10. Vision statement and adequate business plan.
11. To facilitate the changes in the organizational structure in the legacy systems and in the information technology infrastructure.
12. Communication.
13. Teamwork composition for the ERP project.
14. Tests and problem solutions.

A review of multiple studies on issues and barriers for ERP implementation confirmed that in the absence of the CSFs indicated above often lead to implementation failure (Cramer, 2005; Davenport, 2000; Kotter, 1995; Mahon, 2009; O'Leary, 2000; Wheatley, 2000).

According to a body of change management literature, the failure rate of all change programs initiated is around 70 percent (Balogun & Hailey, 2004; Beer & Nohria, 2000, Bolman & Deal, 1999, Kilman & Covin, 1989; Kotter, 1996). Burnes (1996) argued:

> This poor success rate indicates a fundamental lack of a valid framework of how to implement and manage organizational change as what is currently available to academics and practitioners is a wide range of contradictory and confusing theories and approaches (p. xiii).

However, from the organization development literature review, research findings strongly support the success rate of these organizational development interventions (Braford & Burke 2004; French & Bell, 1998; Golembiewski 1989, 2003; Nicholas 1982). Golembiewski (1989) cited results from three major studies conducted between

1979 to 1982 with a success rate of about 50 to 75 percent for all organizational development interventions. In addition, there is an abundance of literature in organizational development interventions which include change management and a wealth of information ready for organizations to apply to ensure a successful change implementation.

Amidst the contradictory and confusing theories and approaches, the problem is to know what change management strategies are appropriate to apply dependent on the type of change, the culture of the organization, and the perception of the change. The human factor appears to be the culprit of the complexity in choosing the appropriate change management strategies (Hall & Hord, 1987; Kotter, 1995). During change initiatives, organizations tend to concentrate on organizational structure or technology and not on the staff or what they do. Because the success of a change initiative is dependent on the things that staff do or fail to do, the change management strategies put in place need to be concerned with factors that positively affect staff's attitudes in order to encourage change initiative adoption (Kotter, 1995).

Thus, organizations must be willing to evaluate any change initiative and invest the time and energy to put forth the right combination of change management strategies for each change initiative in order for it to be successful. According to Davenport (2002), "a well-planned and well-executed ERP implementation, in conjunction with a good change management program, can create a dramatic turnaround for the company" (as cited in Motwani, Subramanian, & Gopalakrishna, 2005).

Successful implementations of SIS, which serve as the central repository for all data about an institution's students, are essential to the effective management of a college

or university. Whereas changing anything implies resistance and challenge, especially when it involves information systems implementation where people, processes, and technology are brought together, published literature on the information systems implementation usually focuses on the processes and technology (Finkelstein, 2001; Cramer, 2005). This gap in the literature has practical consequences because SIS implementation involves people and it is their implementation experiences that will offer invaluable pragmatic insights to accomplish successful SIS implementation.

Researchers have identified several CSFs that may contribute to a successful ERP implementation (Cramer, 2005; Davenport, 2000; Kotter, 1995; Mahon, 2009; O'Leary, 2000; Wheatley, 2000). Most of the CSFs research is case studies surveying individual companies and interviewing with Information Technology (IT) professionals, both of which have provided rich accounts of the implementation process. In addition, according to Hernandez, Jimenez, and Martin (2008), current ERP adoption studies among organizations are mainly based on behavioral theories such as the innovation diffusion theory and the technology acceptance model with much success.

Since higher education institutions have problems common to a wide range of organizations, the standard tools of organizational analysis and institutional management, including ERP systems used by large corporations around the world, can be applied in higher education institutions. Similarly, literature on innovation adoption and diffusion such as the Diffusion of Innovations Model (Rogers, 1995), the Concerns-Based Adoption Model (Hall & Hord, 1987), and the Technology Acceptance Model (Davis, et al., 1989) can be functional in higher education institutions. These three models will be examined in order to gain insight and to serve as the theoretical framework for this study.

Diffusion of Innovations Model

The first model to be discussed is Rogers' Diffusion of Innovations model (see Figure 1).

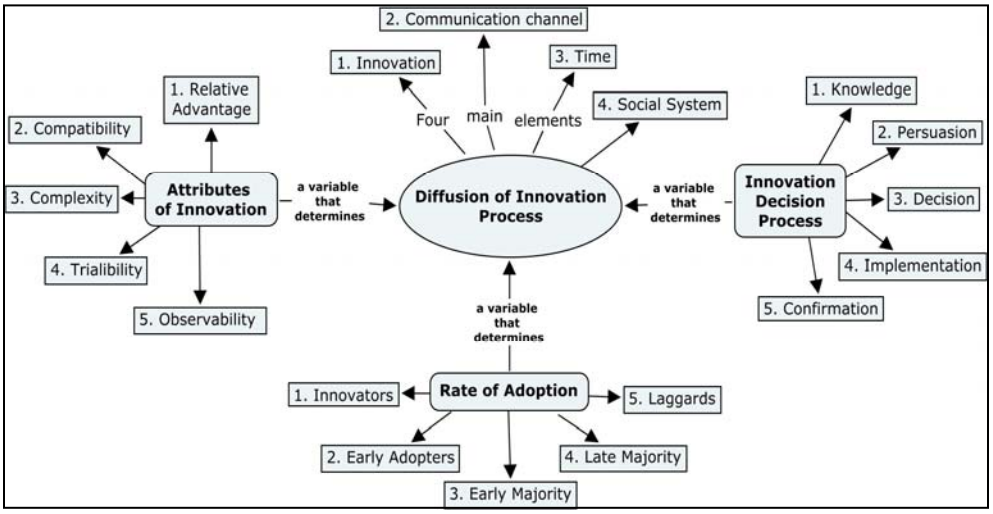

Figure 1: Tsang-Koşma's interpretation of the Diffusion of Innovations Model

Diffusion theory imparts an in-depth viewpoint on innovation and the elements that propel adoption of innovations and those that inhibit them. Rogers' research has dominated the field of diffusion theory. Through his research, Rogers identified the influences and possible barriers to diffusion that may increase the rate of success in the adoption of innovations. Rogers (1995) defined diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. The diffusion model focuses on how an innovation is communicated. Rogers (1995) explained that the model is essentially a social process which focuses on subjectively perceived information when a new idea is communicated.

Originally applied by Rogers to the field of consumer behavior, there are four main elements defined by Rogers (1995) in the diffusion of innovation process:

1. Innovation.

2. Communication Channel.
3. Time.
4. Social System.

The first element, Innovation, is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p.11). "Newness of an innovation may be expressed in terms of knowledge, persuasion, or a decision to adopt" (p.11). The second element, Communication Channel, is "the means by which messages get from one individual to another" (p.18). The third element, Time, "is involved in diffusion in innovation-decision process, innovativeness, and innovation's rate of adoption" (p.36). The diffusion of innovation process is the spread of a new idea from its source of invention or creation to its ultimate users or adopters (Rogers, 1995). The Innovation-decision process (Rogers, 1995, p.162) depicted how an individual (staff member) moves through the five stages of adoption:

1. Knowledge - learning about the existence and function of the innovation.
2. Persuasion - becoming convinced of the value of the innovation.
3. Decision - committing to the adoption of the innovation.
4. Implementation - putting it to use.
5. Confirmation - the ultimate acceptance (or rejection) of the innovation.

Lastly, "an innovation's rate of adoption is concerned about how fast the innovation is adopted by the target population" (Rogers, 1995, p.206). Rogers (1995) defined the fourth and final element, Social System, as "a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal" (p.37). The social system is the organizational unit (the people) and innovations are adopted at different

rates by different social systems (Rogers, 1995).

Early approaches to researching the diffusion of innovations emerged from the fields of anthropology, geography, sociology, health, marketing and communications, but were consolidated into a single research tradition in the 1960s (Rogers, 1995). These diverse traditions contributed to a rich body of literature on how the characteristics of adopters, innovations, social networks and systems, and opinion leaders influence the adoption.

In the 1940's, two sociologists, Ryan and Gross, published their seminal study of the diffusion of hybrid seed among Iowa farmers. According to Rogers (1995), the study by Ryan and Gross in 1941 used a retrospective survey method to model the diffusion of hybrid corn in Iowa. Rogers (1995) further explained their study sought to correlate innovativeness (the time of adoption) with a number of variables such as the adopter's age, education, farm size, income and access to diverse information sources. Ryan and Gross found that the number of adopters plotted over time did not follow the normal distribution curve (Rogers, 1995).

Based on Ryan and Gross's seminal study and other innovation adoption studies, Rogers (1958) conducted a meta-analysis of farm studies to examine if adoption rates approached normal distributions. The studies collected data about farmers adopting new practices and the practices that were near complete adoption were tested for normal distribution using the Smirnov test. "The Smirnov goodness-of-fit test is a means by which the probability that an actual distribution may have been drawn from a normal distribution can be determined" (Rogers, 1958, p.348). Rogers (1958) concluded that half of the adoption of the practices followed the normal distribution. Furthermore, Rogers

(1958) determined that the normal distribution curve could be split into five categories, which he labeled as innovators, early adopters, early majority, late majority, and laggards (see Figure 2).

In addition, the original diffusion research was done by the French sociologist, Gabriel Tarde, who plotted the S-shaped diffusion curve in 1903 (Rogers, 1995). According to Rogers (1995), similar to Tarde's 1903 S-shaped curve, most innovations have an S-shaped rate of adoption. Rogers (1995) converted the normal distribution curve to an S-curve to depict the diffusion of an innovation.

Thus, one of the Rogers' major contributions mentioned above in predicting the rate of adoption is the adopters' categorization and their characteristics. Rogers (1995) stated that based on adoption research, most innovations have an S-shaped curve (S-curve) of adoption and that there are five adopter categories: (a) innovators, (b) early adopters, (c) early majority; (d) late majority, and (e) laggards. Rogers (1995) explained the S-curve when plotted over time on a frequency basis usually follows a normal distribution curve of adoption pattern in which approximately 2.5 percent are innovators, 13.5 percent are early adopters, 65 percent are early and late majority; and 16 percent are laggards (see Figure 2).

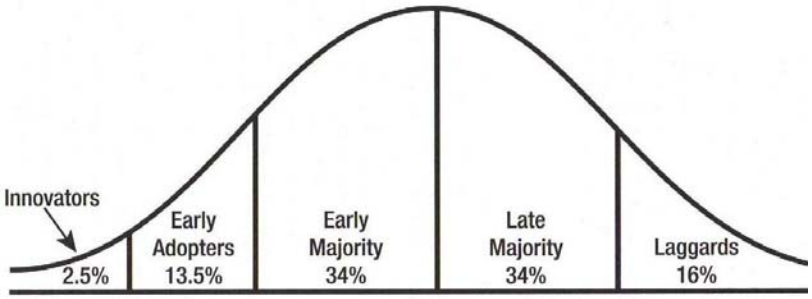

Figure 2: Normal curve of adoption plotted on a frequency basis by adopter categorization (Rogers, 1995, p.262)

Rogers (1995) identified several characteristics dominant in each of the adopter category:

1. Innovators – risk takers, educated, multiple information sources.
2. Early adopters - social leaders, popular, respected.
3. Early majority - deliberate, many informal social contacts.
4. Late majority - skeptical, traditional.
5. Laggards - neighbors and friends are main information sources.

According to Rogers (1995), left unchecked, innovations would spread through a social system in an S-curve, with the innovators and early adopters leading the way, followed by the majority, until the innovation is wide spread (see Figure 3). Thus, when forming an implementation team, it is important to include team members who are in the innovators and early adopters categories. The innovators try out the innovation so they accumulate valuable information and communicate necessary knowledge about the innovation to team members. The early adopters can act as opinion leaders to serve as role models and persuade the majority to speed the adoption of the innovation.

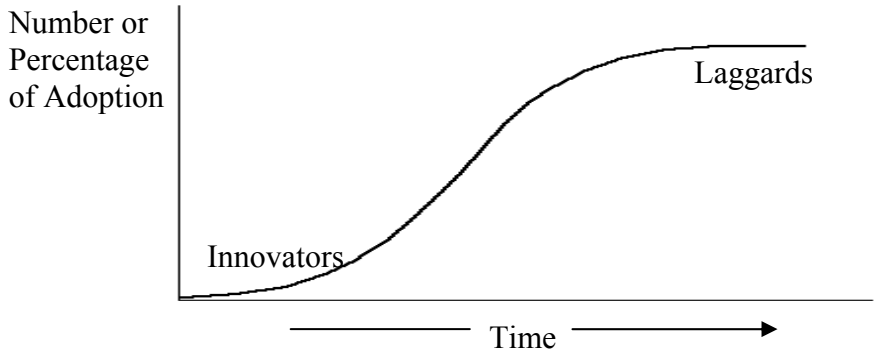

Figure 3: S-curve rate of adoption (Rogers, 1995, p.106)

In addition to the diffusion model and the adopters' categorization and their

characteristics, Rogers (1995) also discussed five attributes of innovations, which are: (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability (p.206). The first attribute, relative advantage, "is the degree to which an innovation is perceived as being better than the idea it supersedes" (p.212). The second attribute, compatibility, "is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters" (p.224). The third attribute, complexity, "is the degree to which an innovation is perceived as relatively difficult to understand and use" (p. 242). The fourth attribute, trialability, "is the degree to which an innovation may be experimented with a limited basis" (p. 243). Finally, the fifth attribute, observability, "is the degree to which the results of the innovation are visible to others" (p.244). These attributes are important to understand because they relate to and can predict the rate of adoption of the innovation.

There are many Information Technology (IT)-based studies that use Rogers' Innovation Diffusion theory as their theoretical framework. In a recent meta-analysis research, Jeyaraj, Rottman, & Lacity (2006) presented a review and analysis on the adoption and diffusion of IT-based innovations by individuals and organizations. The review analyzed 48 empirical studies on individual IT adoption and 51 studies on organizational IT adoption published in refereed journals between 1992 and 2003.

According to the review findings of Jeyaraj et al. (2006), one of the most widely examined theories among IT diffusion and adoption research was Rogers' Innovation Diffusion Theory. Jeyaraj et al. (2006) stated:

> Of the five major innovation characteristics (Relative Advantage, Complexity, Compatibility, Trialability, and Observability), all of them have predictive weights above 0.50. Thus, more than 50% of the time when Rogers' innovation characteristics were examined, they were found

to be significant in our sample. (p.4)

Given that change management is the core activity in realizing organizational goals while implementation is the process of delivering an innovation, the people and relationships within the social systems are the major components to successful implementation. Rogers' diffusion model illuminated the understanding of the adopters' categorization and their characters as well as the five attributes of innovations that can be used as a mechanism for organizations to achieve successful adoption and diffusion of the innovation. The next model to be discussed is the Concerns-Based Adoption Model.

Concerns-Based Adoption Model

The Concerns-Based Adoption Model (CBAM) (see Figure 4) is a widely used research-based model of technology adoption and implementation in education settings. It is a model that focused on the human side of change (Hall & Hord, 1987). Ellsworth (2000) stated:

> Hall and his associates offer the best framework for describing what is important to intended adopters and helping them through change. Yet, Rogers is widely considered authoritative in his theoretical categorization of adopters and their characteristics, which may be of considerable use in understanding why adopters progress through CBAM's stages and level at different rate (p.146).

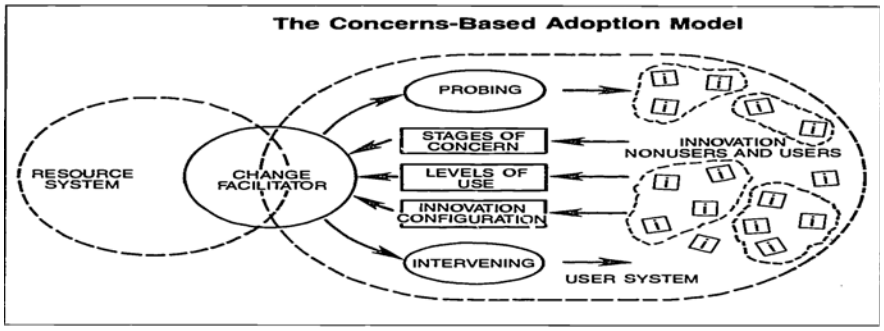

Figure 4: The Concerns-Based Adoption Model (Hord, Rutherford, Huling-Austin, & Hall, 1987, p.17)

In the course of the CBAM research, Hall and Hord (1987) asserted that change is a process and there are phases in implementing the change process. Furthermore, Hall and Hord (1987) "hypothesized that there was a set of developmental stages and levels teachers and others moved through as they became increasingly sophisticated and skilled in using new programs and procedures" (p.7). According to Hall and Hord (1987), the CBAM is developed through field observations and studies. Hall and Hord (1987) documented examples and described the stages and levels of teachers' change process. They also observed and documented the actions of change facilitators "to address and attend to the different stages and levels teachers were experiencing" (Hall & Hord, 1987, p.7).

Based on the findings, the CBAM introduced two sets of concepts and their related measures: one set for diagnosing the status of implementation, the other for prescribing interventions to move the implementation process forward. Three diagnostic dimensions are described as: (a) stages of concern about the innovation, (b) levels of use of the innovation, and (c) innovation configuration. Accordingly, each staff member experienced the change process depict by these three diagnostic dimensions.

The first dimension, Stages of Concern (SoC), focuses on the user's thoughts and feelings about the innovation (Hall & Hord, 1987). The seven SoCs are:

1. Stage 0: Awareness - Little concern about or involvement with the innovation.
2. Stage 1: Informational – A general awareness of the innovation and interest in learning more detail about the innovation.
3. Stage 2: Personal – Individual is uncertain about the impact of using the

innovation.

4. Stage 3: Management – Attention is focused on the processes and the tasks of using the innovation.
5. Stage 4: Consequence – Individual is concerned about the impact of the change.
6. Stage 5: Collaboration – The focus is on coordination and cooperation with others regarding the use of the innovation.
7. Stage 6: Refocusing – The focus is on improvement of innovation.

The second dimension, Levels of Use (LoU), is a description of the individuals' behavior as they familiarize themselves with and skillfully use the innovation (Hall & Hord, 2001). The eight LoUs are:

1. Level 0: Non-use - Individual neither uses the innovation nor takes any action to get involved.
2. Level 1: Orientation – Individual learns about the innovation.
3. Level 2: Preparation – Individual gets ready to use the innovation for the first time.
4. Level 3: Mechanical Use – Individual attempts to master the tasks required by the use of the innovation.
5. Level 4A: Routine – Individual masters the use of the innovation.
6. Level 4B: Refinement - Individual gradually incorporates changes to improve the impact of the innovation.
7. Level 5: Integration – Individual cooperates with colleagues to improve the impact of the innovation.

8. Level 6: Renewal – Individual re-evaluates the impact of the innovation and considers new innovation that may have better outcome.

The third dimension, Innovation Configuration (IC), serves as a tool to "provide guidelines on appropriate configurations before implementation begins" (Hall & Hord, 1987, p.120). The IC includes (Hall & Hord, 2001):

1. A table listing the innovation's key components such as technology, pedagogy, behavior.
2. A column for each of the descriptions of the "ideal", "acceptable", and "unacceptable" implementation for each of the key components.

Hall and Hord (1987) further expounded that central to the CBAM is the change facilitator who assists staff in developing the skills and confidence needed to use a particular innovation in ways that are relevant to their concerns.

Since CBAM has been used to assess technology integration effectiveness in various settings, Chamblee and Slough investigated the feasibility of using the CBAM model in three reviews of technology integration focusing in mathematics and science (Chamblee & Slough, 2004; Slough & Chamblee 2005; Slough & Chamblee 2007). Chamblee & Slough (2004) conducted the first review by focusing on a decade of Society for Technology and Teacher Education proceedings that included CBAM and technology with mathematics or science. Slough & Chamblee (2005) completed a second review in which an extensive analysis of any journal publication that included CBAM and technology with mathematics or science.

The following three themes emerged from Chamblee and Slough's 2004 and 2005 reviews. The first theme from the review discovered very few research studies proceeded

to use the entire CBAM model to study the integration of technology. Most research studies reviewed only used the SoC Questionnaire diagnostic tool. A small number of studies, usually the ones that have an in-place technology, used the LoU diagnostic tool or the IC diagnostic tool. The second theme from the review indicated majority of the studies were short in duration, most were less than one year. Of these studies, most used a pre-post design model. In addition, very few studies reported on follow-up surveys after the implementation phase was completed. The third theme from the review determined SoC Questionnaire studies usually focused on addressing lower-level concerns (awareness and informational) and not higher-level concerns (management and consequence). However, these studies are able to confirm overall success in modifying the awareness and informational concerns with the use of the SoC Questionnaire.

Based on the findings of the first two reviews, Slough & Chamblee (2007) commenced a third review that included only those studies with long-term implementation and high-level concerns in order to analyze the feasibility in using CBAM. From their three reviews, Slough & Chamblee (2007) validated the CBAM model provides information in managing change through its framework and tools. According to Slough & Chamblee (2007), the key understanding from all three reviews are: (a) early interventions that focused on low-level concerns such as informational and personal concerns are effective but not sufficient, (b) mid-level management concerns can be persistent and must be addressed through institutionalized long-term interventions (i.e., computer support staff and instructional support staff), (c) pairing technology use data gathered by LoU with concerns data gathered by SoC Questionnaire can lead to more individualized interventions and perhaps faster progression to higher-level

concerns, and (e) technology represented an ever-changing innovation and just as it is possible to have multiple concerns, it is possible to progress with one technology and stagnate in another.

Based on the research conducted by Hall and Hord (1987), the change facilitator uses the three diagnostic dimensions as tools to collect expressed concerns that ultimately permit the identification of acceptance or adoption of the innovation. This point brings us to the Technology Acceptance Model (see Figure 5), the next model to be discussed.

Technology Acceptance Model

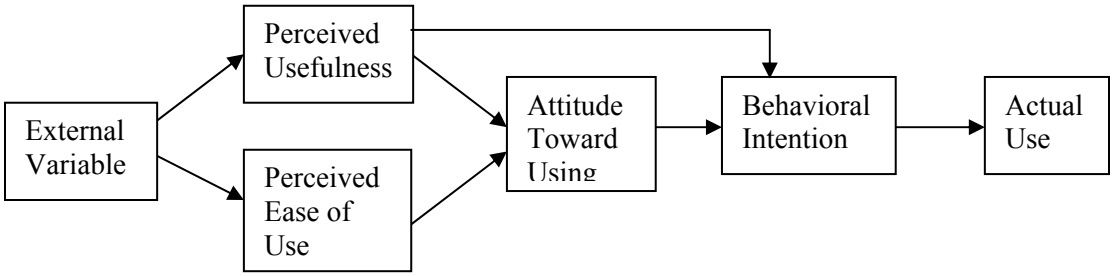

Figure 5: Technology Acceptance Model (Davis et al., 1989)

"The Technology Acceptance Model (TAM) is undoubtedly the one model that has held the most attention in the academic community since its initial publication by Davis" (Collerette, Legris, & Manghi, 2006, p.160). TAM was developed by Davis (1989) to explain computer-usage behavior. According to Davis (1989), TAM is based on Fishbein and Ajzen's Theory of Reasoned Action (TRA). TRA is a model from social psychology and is focused on the consciously intended behaviors (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1977). According to TRA, a person's performance of a specified behavior is determined by his or her behavioral intention to perform the behavior. Moreover, the behavioral intention is determined by the person's attitude and subjective

norm based on the behavior in question.

Davis (1989) stated that TAM is a model that focuses on why individuals adopt or reject innovations (as cited in Treanor, 2002). TAM uses TRA as a theoretical basis for identifying causal relationship between two key sets of constructs: (a) Perceived Usefulness and Perceived Ease of Use, and (b) user's attitude, behavioral intentions, and actual computer usage behavior (see Figure 5).

Perceived Usefulness is defined as the user's "subjective probability that using a specific application system will increase his or her job performance within an organizational context" (Davis, Bagozzi, & Warshaw, 1989, p.985). Perceived Ease of Use refers to "the degree to which the user expects the target system to be free of effort" (Davis et al., 1989, p.985).

Davis et al. (1989) used a random sample of participants from an organization to examine the perceived usefulness and perceived ease of use scales. The scales consists of statements with which participants were asked to rate two computer software applications on a 7-point Likert scale from "extremely likely" to "extremely unlikely" with a higher score indicating a higher rating of perceived usefulness. In addition, participants were asked to submit self-reports of the frequency they used the two computer software applications on a five-position scale with options such as "Do not use at all" to "Use about once each day". The findings suggested that potential users of the system made their usage decision based on their perception on how the system would help improve their job performance and how easy it was to use the system (Treanor, 2002).

To enhance the original TAM, Davis et al. (1989) performed a follow-up study to investigate the relationships among attitudes toward using, perceived usefulness, and

perceived ease of use. Davis et al. (1989) augmented the system usage dependent variable into separate variables of attitude, behavioral intent, and usage.

Davis et al. (1989) theorized that attitude is a predictor of intent and intent is a predictor of usage. Both perceived usefulness and perceived ease of use predict attitude toward using the system. In turn, attitude and perceived usefulness influence the individual's behavioral intention to use the system. Consequently, actual use of the system is predicted by behavioral intention. Treanor (2002) noted the results of this research confirmed positive relationships among these variables and they were integrated into the Perception Characteristics of Innovation Scales developed by Moore and Benbasat (1991) to predict the adoption of a technology innovation.

TAM has been extensively tested and successfully applied to many information systems implementation. Most studies agree that TAM enables the understanding of the role of perceptions such as usefulness and ease of use in determining technology adoption and that perceived usefulness has emerged as one of the strong predictors of technology adoption and usage behavior. (Adams, Nelson, & Todd, 1992; King & He, 2006; Schepers & Wetzels, 2007; Treanor, 2002).

To validate TAM, Adams et al. (1992) conducted two studies to evaluate the psychometric properties of the ease of use and usefulness scales and to examine the relationship between ease of use, usefulness, and system usage. Study one provided a strong assessment of the convergent validity of the two scales by examining diverse user groups dealing with implementations of two different messaging technologies, voice and electronic mail (Adams et al., 1992). Study one had a total of 118 respondents from 10 different organizations that were surveyed for their attitudes towards voice and electronic

mail (Adams et al., 1992).

Study two was designed to complement the approach taken in Study one by focusing on the ability to demonstrate discriminant validity (Adams et al., 1992). Three popular software applications (WordPerfect, Lotus 1-2-3, and Harvard Graphics) were examined based on the expectation that they would all be rated highly on both scales. Study two had a total of 73 users rated the three packages in terms of ease of use and usefulness (Adams et al., 1992).

The psychometric properties of the two measures developed by Davis appeared to have been robust across studies and user groups (Adams et al., 1992). Most significantly, Adams et al. (1992) were able to replicate the research performed by Davis et al. and validated the instrument and the measurement scales. Thus, the TAM represents an important theoretical contribution toward understanding information system usage and information system acceptance behaviors.

Summary

Even though information systems implementation brings together people, processes, and technology, literature review showed that published literature on the information systems implementation usually focuses on the processes and technology (Finkelstein, 2001; Cramer, 2005). This gap in the literature has practical consequences because SIS implementation involves people and it is their implementation experiences that will offer invaluable pragmatic insights to accomplish successful SIS implementation.

Because unwanted change is inevitable for innovations adoption, it is necessary for organizations to plan for it. Not all changes are successful, even when there is a

significant planning effort made. Organizations need to investigate what change management strategies to put in place to influence staff's attitudes toward the technology being adopted.

According to Straub (2009), "adoption and diffusion theories address different aspects of behavioral changes" (p.628). It is hoped that by using the theoretical framework of the three adoption models an understanding about individual's attitudes can be gained, as they are the basis to preventing user resistance, and only then can an organization move toward enhancing user usage as well as adoption and diffusion of the innovation. In addition, by using the phenomenology inquiry approach, the essence of staff's lived experiences may reveal how change management strategies inform staff's decision in the adoption of an innovation.

This chapter covered the review of the literature that helped the researcher gain insight and served as the theoretical framework for this study. The next chapter discusses the research design, namely, a research study with a phenomenology perspectives, the research setting, the researcher background and role, participants' selection, the data collection as well as data analysis techniques used in this study, and the rationale underlying the selection of the research methods.

CHAPTER 3

STUDY DESIGN AND METHOD

Overview and Context

Despite the voluminous literature about change management, empirical and conceptual gaps persist. Previous studies in Enterprise Resource Planning (ERP), mostly quantitative, have identified variables such as critical success factors of implementation that correlate with change management strategies and innovation adoption (By, 2005; Collerette et al., 2006; Motwani et al., 2005). While these studies inform organizations about the correlation of these variables, they fail to further investigate how these variables can be affected by change management strategies. One such variable is constant throughout the literature which is users' resistance to change. Thus, fine-grained analysis illuminates the ''lived experience'', underpinning how change management strategies inform staff's decision in innovation adoption can complement and extend existing understanding.

Research Design

This study is a research study informed by phenomenological perspectives that focus on describing how people experience their world and what it is like to be in that world (Moustakas, 1994, van Manen, 1990). Given that the past informs the present and both inform the future of adoption, by revealing and understanding the effects of the past, we inform the present in hope to gain insight about the best practices for the future in Student Information System (SIS) adoption (Moustakas, 1994, van Manen, 2007;

Vickers, 2002). Thus, the goal of this study was to better understand the lived experiences of staff in the SIS adoption at Big U.

Rationale for Using a Case Study Informed by Phenomenology Perspectives for an Eight-year old SIS Implementation

Case Study Research Informed by Phenomenology Perspectives

According to Yin (2003), case study research is appropriate under several circumstances, such as when the case is either critical for testing a well-formulated theory, or when the case is a representative or typical case. The latter condition applies to this proposed case study. This study represents a typical "project" because the ERP implementation for this case is similar to the research findings conducted by King (2002) surveying nearly 500 higher education institutions on ERP implementation in a seven-year time frame. The lessons learned from these cases are assumed to be informative about the experiences of the average person or institution (Yin, 2003, p.41). In addition, research findings affirmed that ERP implementation creates much of the unwanted organizational change (King, 2002). Thus, the planned change approach in employing the change management strategies is typical among many ERP implementation projects.

Moreover, Wolcott (1992) argued that the study of multiple cases lessens the attention the researcher is able to give and may weaken rather than strengthen the case study. Merriam (1998) explained that "case study can be characterized as being particularistic, descriptive, and heuristic" (p.29). According to Merriam (1998) "particularistic means that case studies focus on a particular situation, event, program, or phenomenon" (p.29); thus, the first step in case study research is to construct a clear research focus by selecting a unit of analysis, also known as the case boundary (Merriam,

1998; Yin, 2003). Yin (2003) stated the unit of analysis is related to the research questions and describes the specific focus of what will be investigated. In this study, the unit of analysis is the SIS implementation within a particular higher education institution, Big U. Thus, the Big U SIS implementation is the research focus as related to the research questions which sets up the case boundary. Within this case boundary, the specific focus is to investigate the phenomena, namely, the lived experiences of staff in the SIS adoption process during the SIS implementation.

Descriptive means the end product will be a rich, 'thick' description of the phenomenon under study (Merriam, 1998). Since this study is informed by phenomenological perspectives, the 'thick' description is focused on describing the staff's lived experience of the change management strategies and what it is like to be on the receiving end of the change management strategies. van Manen (1990) stated that "a good phenomenological description is a validating circle of inquiry in which it is validated by lived experience and it validates lived experience" (p.27). Lastly, Merriam (1998) said that "heuristic means case studies will illuminate the reader's understanding of the phenomenon under study" (p.30).

Furthermore, most innovation adoption research is conducted with the quantitative approach. Qualitative research places emphasis on understanding through looking closely at people's words, actions, and records. The quantitative approach to research looks past these words, actions, and records to their mathematical significance. In contrast, qualitative research examines the patterns of meaning which emerge from the data and these are often presented in the participants' own words (Creswell, 2003; Merriam, 1998). Moustakas (1994) explained that phenomenology is a method of

understanding the person's lived experiences according to what a person perceives and knows. According to van Manen (1990) "phenomenology is the systematic attempt to uncover and describe the structures, the internal meaning structures, of lived experience" (p.10); moreover, "reflection on lived experience is always recollective; it is reflection on experience that is already passed or lived through" (van Manen, 1990, p.10). Because the lived experiences of staff are the basis for this research study, phenomenology provided the appropriate framework for discovering the essence of the experience of going through the change management strategies put in place for the SIS adoption.

It is hoped that the findings of this study informed by phenomenology perspectives will contribute to the body of innovation adoption as well as change management research with an in-depth qualitative lens. In addition, it is the aspiration of this study to explore the importance of understanding staff lived experiences toward change initiatives for staff attitudes are the basis to prevent user resistance. In turn, organization can move toward enhancing user usage and acceptance of the technology.

Implementation of SIS

Educational technologists Surry and Ely (2002) stated:

> The ultimate criterion for a successful innovation is that it is routinely used in settings for which it was designed. It has become integral to the organization or the social system and is no longer considered to be an innovation. (p.190)

According to Surry and Ely's definition, the implementation of SIS at Big U is considered successful for staff routinely used the SIS to perform their job.

The authors of "*The Digital Pencil: One-to-One Computing for Children*", Lei, Conway, and Zhao (2008), discussed the evolution of technology from innovation to appliances and the implication for school technology adoption. The authors theorized that

when innovations have disappeared into the context where they are used, that is, when the innovations were taken for granted, they have gone through a transformation from innovation to appliances. The authors gave the following example:

> We do not even mention cars when we talk about the daily activities that involve them (e.g., "I'll take you to the airport") or we use driving time to talk about distance (e.g., "Washington, DC, is 4 hours from New York City"). Once a prominent and rare innovation, cars have seamlessly disappeared into our daily lives (Lei et al., 2008, p.2-3).

Although the SIS went live in April 2002, the SIS has not reached the appliance stage as described by Lei, et al. because of the constant upgrades and plans to continue adding to the SIS by implementing new modules. Thus, the change management strategies used during implementation are kept in place after the SIS went live due to the continuous changes and upgrades. Lei et al. (2008) stated that "innovations are normally rare, expensive, unstable, and unreliable and they have functions that are often uncertain and evolving" (p.2). The latter statement about innovations evolving is true for the SIS at Big U because the functions that each upgrade and new module brought cause uncertain changes. Therefore, the change management strategies are the important constant amidst these uncertain changes.

Research Setting

As mentioned in the research design section, the Big U SIS implementation is the research focus as related to the research question which set up the case boundary. Within this case boundary, the specific focus is to investigate the phenomena, namely, the lived experiences of university staff in the SIS adoption process during the SIS implementation and how the change management strategies influenced staff's decision in the SIS adoption.

Big U is one of the largest institutions within the University System of the State. It is also one of the last institutions to comply with the SIS implementation mandate due to resistance to change. Two main drivers propelled the Big U upper administration in embarking the SIS implementation: (a) to replace the legacy system that was outdated and too expensive to maintain, and (b) to comply with a mandate issued by the Board of Regents within the University System to implement a new ERP system in order to consolidate technical support efforts for all the institutions within the University System. The legacy system was a homegrown system built to the specifications of its operational business processes and staff's needs; thus, the legacy system was much favored by all Big U users. Programmer resources were heavily invested to customize the legacy system to appease the different needs of various colleges and departments since different colleges and departments each had their own operational business processes. Since the legacy system was built to the specific users' needs, users were comfortably attached to the much favored legacy system like a worn patchwork quilt and there was high resistant to adopt and use the new SIS.

As discussed in the purpose of study section, one of the benefits of ERP systems is removing the silo approach to information where every department owns and maintains its databases (King, 2002). Even though the various departments at Big U shared one database, each department had function specific forms within the legacy system only accessible by certain departments. Thus, it was not a system designed to share data or operational business processes. The Big U upper administration decided that the SIS implementation would provide newer and better information technology in order to improve services for its student, faculty, and staff as well as its operational business

processes efficiency.

Big U kicked off the SIS implementation in October 2000. The institutional climate for the SIS implementation was not ideal because the Big U just finished replacing the legacy system with a not-so-successful financial ERP implementation, which was another Board of Regents mandate. Thus, the Big U upper administration was determined to make the SIS implementation a success. However, they knew this implementation was an uphill battle for user resistant was high due to the much favored legacy system. Hence, the upper administration emphasized the implementation as mandated by the Board of Regents as leverage.

A SIS Steering committee was formed to oversee and serve as sponsors for the implementation. Its members consisted of Big U upper administration including the Provost, the Chief Information Officer, and the functional as well as the technical project leads. The SIS Steering committee then formed an implementation team by carefully selecting both technical and functional staff in leadership roles from various key departments that were key stakeholders, highly respected, and knowledgeable about functions and processes in their respective units from across the university. Each implementation team member served as a team leader to lead various functional and technical implementation sub-teams that served as the implementation work groups. There were fifteen implementation sub-teams to cover all the major functional and technical units. Implementation sub-team members were selected by upper administration within their respective units, some of whom were highly visible resisters of the new SIS yet loyal to the university, to create buy-in for the new SIS.

Project scope (see Appendix A) and team charters (see Appendix B) were put in

place specifying goals, project scope, timelines, and responsibilities for each implementation sub-team. The team leaders were charged to retain holistic knowledge of the project and to keep the implementation team informed of their implementation sub-teams' issues as well as project status by attending the bi-monthly meetings where key dependencies issues were discussed. They were also responsible for coordinating all SIS building and testing activities amongst implementation sub-team members. All implementation sub-teams were directed to ensure operational business processes aligned with the SIS functions and provide job processes documentation as well as function specific training for their respective units. Implementation sub-team leaders and members were provided with a train-the-trainer workshop conducted by the Big U Management and Staff Development Services in order to:

1. Provide instruction on training methods and procedures for individuals who will be training SIS functional end-users.
2. Ensure the trainers were able to successfully plan their training sessions.
3. Address large and small groups efficiently.
4. Present information effectively.
5. Obtain tools and resources to deal with confrontation as well as technical and logistical problems.

In addition to train-the-trainer workshops, an external consultant firm was hired to provide soft skills training for implementation team leaders and members of sub-teams such as team building, change management, and meeting management. An external experienced project manager was also hired from the same consultant firm to provide project management for all the implementation tasks, activities, deadlines, and

milestones. Moreover, the SIS vendor consultants were hired to perform function specific training for all implementation sub-teams.

There was a total of 200 plus members for the implementation and implementation sub-teams from different departments and job functions involved in the implementation phase of the SIS. To ensure successful adoption and use, the implementation sub-teams' members were charged to serve as change agents to their respective units. The role of the change agents was to communicate necessary information to their respective units as well as to serve as adoption role models for the new SIS.

The SIS implementation was divided in phases for different unit functions according to the inter-dependencies of these functions. For example, the courses must be in place before the schedule of classes can be built; in turn, the schedule of classes must be ready before student registration can take place. After an intensive18-month implementation, the SIS went live in time for the fall semester student registration in April 2002. Because the SIS implementation was on time and under budget, the Big U administrators considered it a big success. However, SIS implementation for other unit functions not included in the initial implementation as well as upgrades continuous take place after the initial SIS go live. Thus, this study included the participants' experiences in the adoption and use of subsequent SIS implementation for unit functions not included in the initial implementation as well as the continuous upgrades.

Researcher Background and Role

I was hired by Big U in October 2000 just when the SIS implementation began. Prior to working for Big U, I was an employee at a sister institution within the University

System that had gone through the SIS implementation. Thus, I had five years of experience in using the student information system. In addition, I wrote training documents and served as the department trainer. During this same period, I graduated with a Master's degree in Instructional Technology in December 1999. Combined with my SIS experiences and a degree in Instructional Technology, I was hired by Big U to design a university wide SIS training program. I was a member of the implementation team and served as an internal SIS functional expert for Big U. When the end-user training began, I also took on the role of change agent. Currently, I am the Senior Associate Registrar overseeing the SIS office and the Document Management Center and the Academic Scheduling unit at Big U.

The purpose of this research study informed by phenomenological perspectives was to better understand the lived experiences of university staff in the SIS adoption process. Because I was intimately involved with the SIS implementation, this experience allowed me to successfully perform the task of a qualitative researcher which is to find patterns within those words (and actions) and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it (Creswell, 2003; Merriam, 1998). In addition, Merriam (1998) stated, "the key concern is understanding the phenomenon of interest from the participants' perspectives, not the researcher's" (p.6). The emic (insider) view of being part of the implementation provided me with an understanding of what the staff experienced. Yet, as a researcher, the etic (outsider) view would allow me to provide a new perspective on a familiar situation (Merriam, 1998).

Moreover, Wolcott (1994) made it clear that there is legitimacy in researching

within one's own organization or organizations close to oneself as long as time was spent identifying potential risks and assets in the process. There are clearly two major constraints: (a) because of my intimate involvement with the SIS implementation, the relationships with individuals in the research may prevent me from collecting credible data, and (b) I am invested in declaring the training program a success as well as a necessity to the SIS implementation since I oversaw the training program of the SIS implementation which served as one of the change management strategies.

On the first point, the issue of tainted data because of closeness to the implementation and inter-relationships with the people concerned, this has always been one of the critical factors in qualitative research since the researcher is the primary instrument for data collection and analysis (Creswell, 2003; Merriam, 1998). In order to help us to bring to light the lived experiences that which presents itself, according to van Manen (1990) "a phenomenological question must not only be made clear, understood, but also "lived" by the researcher" (p.44).

While it is true that processes identified by Wolcott (1994) in her ethnographical research allowed important separation devices to be built into the research, there is always closeness between the research process and the researcher in such highly qualitative units. Wolcott's own research on the roles of an Elementary School Principal in America involved a whole year of close relationship with a senior manager in a school and the need to distance herself from the process through her write ups, her notes and her regular reporting back to colleagues both within and without the research team were important tools in her armory as "the critical researcher" (Wolcott, 1994). Merriam (1998) stated the extent of the trustworthiness of the research results depend on their

validity. Merriam (1998) suggested that researchers can use triangulation, member checks, and peer examination to strengthen validity.

I transcribed all the interview recordings in order to immerse in the data with the use of a computer-based analysis program package - NVivo8. To establish trustworthiness and to assess the interpretation's credibility, I utilized member checking by sending interview participants the transcriptions as well as the textural and structural descriptions to ensure data and tentative interpretations are accurate and plausible. For critical evaluation of the interpretation, I asked a colleague as well as a fellow doctorate Instruction Technology student to act as peer debriefers for the duration of the research to comment on the findings as they emerge.

On the second point, the success of the SIS training program can be validated with archived and on-going training sessions evaluations completed by users attended the training as well as with confirming data from the formal training program evaluation. Since the focus of this study is not on how the success of the training program may affect the SIS implementation, my personal view on the success of the training program should not influence the study. Nevertheless, to establish trustworthiness, I evaluated archival records from the Big U SIS implementation to assess outstanding negative cases or disconfirming evidence in order to minimize researcher bias as well as to triangulate emerging findings.

I served as the primary instrument for the data collection methods specified in the data collection plan and triangulation section below. I also served as the primary instrument for data analysis. According to McCormick & White (2000), several techniques may be used to ensure credibility in using self as an instrument: (a) remain

objective and reduce bias by reflecting on the preconceptions and prejudices of the event, (b) pay attention to the feelings of surprise for it suggests the researcher's assumptions or expectations have not been met and the researcher needs to find out why, and (c) postponing judgment to circumvent premature conclusion.

By following Moustakas' four primary steps in phenomenological research, I was able to ensure credibility in using self as an instrument. To remain objective, I revealed and bracketed my bias (see Appendix C) by using the Moustakas' epoché process in which I reflected on my personal experience of the SIS implementation by responding to the questions from the interview protocol prepared for the study participants prior to the pilot study and reviewed the epoché prior to the full study. Immediately after each interview session, I wrote my reflection about the information shared by the participants and paid attention to the feelings of surprise. During the transcribing process, I pursued and thought deeply about which of my assumptions or expectations had not been met. In addition, by using phenomenological reduction, imaginative variation, and synthesis of composite textural and structural descriptions, I was able to postpone judgment to circumvent premature conclusion. A detail explanation of Moustakas' four primary steps in phenomenological research is included in the data analysis section.

Data Collection and Triangulation

Phenomenology was the method chosen for this study. This approach enabled the researcher to understand a particular phenomenon residing in the study population sample. Thus, this study used purposeful sampling based on predetermined selection criteria where selected interview participants can contribute the most information toward the purpose of the study. According to Merriam (1998), "purposeful sampling is based on

the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p.61).

Consequently, purposeful selection in this research was used to ensure a cross-section of staff tenure and SIS usage. Study participants in this research study are Big U staff. Since I was the researcher conducting the interviews, staff selected for the interviews were not any of my subordinates.

There were two 1½ -hour interview sessions for each individual participant and one 2-hour interview session for each of the established functional users support group (FUSG) interview participants. The two interview sessions for individual participants were no more than 3 days apart to allow participants enough time to reflect on information discussed during the first interview session. I used email or telephone to contact potential study participants. There was no recruitment material developed for the recruitment except for the Informed Consent Forms (see Appendixes D and E). Invited participants for each established FUSG interview were notified in advance of all the other invited group participants so that they could choose whether or not they wished to participate.

The pilot study interviews were conducted in February and March of 2009 and the full study interviews were conducted in June and July of 2009. Data was collected in two ways, individual and group interviews, using the same interview protocol (see Appendix F). The interview protocol with interview questions was sent to participants before the scheduled interview. The main goal for asking the interview participants to review the interview protocol with the interview questions prior the interview was to stimulate their reflection on their experiences for the SIS implementation.

Moustakas (1994) stated that the main source of data in phenomenological research is long interview; hence, I conducted long interviews with semi-structured open-ended interview questions in order to gather data that would reflect the in-depth experiences of the participants (Creswell, 2003). In addition, phenomenological research traditionally employed a small number of participants (Creswell, 2003). The sample size of 24 participants for this study allowed the researcher to explore in-depth for the richest meaning and understanding of the phenomenon under investigation. However, in an attempt to collect data from a wide variety of experiences, participants' selection included staff that were part of the SIS implementation as well as staff that were not part of the implementation.

In addition, I examined archival records such as implementation project scope and charters as well as the SIS training program evaluations and the SIS office survey results. Benchmarks derived from these archival records will help bring a comparative perspective to how the change management strategies influence staff's decisions in the SIS adoption.

Furthermore, I used member checking to ensure the data and tentative interpretations were accurate and plausible as well as to assess the interpretation's credibility and establish trustworthiness. Thompson, Locander, & Pollio (1990) explained:

> The process of bracketing refers to methodological procedures that allow for seeing the text from a phenomenological perspective without predefining participants' experiences in terms of the interpretive framework. Two specific procedures have been recommended for facilitating bracketing: (1) themes are rendered in emic terms (i.e., those of participants), and (2) the evolving thematic description is periodically subjected to critical evaluation by an interpretive group (p.347).

The phenomenological interpretations, namely the textural and structural descriptions, were returned to participants for commentary. The researcher informed the participants that their comments, critiques, and suggested changes were very important to the investigation. It was emphasized to interviewees that they were the experts when it came to describing their lived experiences. For critical evaluation of the interpretation as well as cross-validation of themes construction, I asked a colleague, Dr. Elizabeth Firestone, to serve as a peer debriefer for the duration of the research to comment on the findings as they emerged. Dr. Firestone is an academic faculty member with a background in Counseling and Psychology Services. She also serves as an advisor in which she uses the SIS to view information. In addition, a fellow doctorate Instructional Technology student, Roxanne Russell, agreed to serve as a peer debriefer also.

Author of one of the bestselling titles in the *Qualitative Research Methods* series, Morgan (1997), stated that while individual is important and can produce in-depth data, the group interaction generated by group interview can produce valuable source of insights when compare to individual interview (p.15). To establish credibility, triangulation of data was used to obtain multiple perspectives of the same event to confirm emerging findings by conducting both the individual and group interviews.

Data was collected using the same interview protocol for both types of interviews. The interview protocol served as an interview guide consists of open-ended non-leading questions that outline themes to be covered during the interview in order to structure the interviews. This study used a modified version of the Seidman (1998) interview technique which centers on a phenomenological approach to in-depth interviewing. The interview process was designed to access the participant's context, the detail of the

experience, and the reflection of the experience. Instead of three face-to-face interviews, this study conducted two face-to-face interviews per individual participant and one face-to-face interview per group interview to gather the data necessary to meet the standards of the Seidman approach. The standards of the Seidman approach was met by sending the interview protocol with the interview questions to participants before the scheduled interview so they could reflect on their experiences for the SIS implementation. Interview questions related to staff's attitudes toward the change management strategies were adapted from Hall & Hord (1987) Stages of Concern questionnaire based on the Concerns-Based Adoption Model.

In addition, invited participants for the FUSG interview were notified in advance of all the other invited group participants so that they may choose whether or not they wished to participate. Morgan (1997) suggested that in order to triangulate group interviews with individual interviews, it was best to conduct the groups as a follow-up to the individual interviews (p.33). Thus, I conducted the individual interviews first followed by the group interviews.

The study participants for both the pilot and full study were university staff with participation in the study being voluntary. Staff were informed about the purpose of the study and the time requirements. They were asked to sign an informed consent and issues of confidentiality also were explained as indicated on the Informed Consent Form. Participants were reminded that they were free to withdraw at any time. Should participants withdraw, they may decide if the data I collected pertaining to them should be discarded.

All interviews were audio recorded. The recorded data from the interviews was

transcribed and provided to participants for examination. Any mention of people, places, or things by participants during the interviews were masked and participants were not identified personally. In addition, participants' name and other facts that might point to them will not appear when the study is presented or its results published.

The findings were summarized and reported in group form. The transcriptions were sent to participants to review and the participants have the right to delete or change anything that might reveal the confidential information related to them. All 24 participants fully participated in the research study and they reviewed as well as approved the use of all text. However, participants requested the removal of all the ‘uhms’ in their speech pattern from the transcripts.

Interviews for all but one individual participant were conducted face-to-face at an on-campus location as agreed to by participants and the researcher. For one individual participant, the two interviews were conducted over the phone. All information collected for this study was kept confidential to the extent allowed by law. Participants were not identified except by a code in the form of a pseudonym. The pseudonyms were used to mask any personal information. All information collected which include the code file, the recorded digital tapes, and the transcriptions were saved in a firewall and antivirus-protected computer at the researcher's locked private office. They were protected by a computer login password and a different document security password for each document. All hard copy documents were kept in a locked filing cabinet. Only authorized research personnel have access to the computer and the locked filing cabinet. Whatever personal information gathered during the interviews will be deleted when the study is presented and/or its results published.

As a result of the pilot study, I confirmed that the questions on the interview protocol solicited the data I needed for the research study. However, I added another question to the interview protocol to ensure the collection of data from participants as to what mechanisms provided by the University they believed were in place to help them toward adopting and using the SIS. The pilot study also confirmed that sending the interview protocol for the participants to review and reflect on the SIS adoption prior to the interview worked well for the individual as well as the group interview format.

Participants' Selection and Descriptions of Participants

Because of my role at Big U, as the researcher conducting the interviews, participants did not include any of my subordinates. For this research study, a pilot study was conducted before the full study. The purpose of conducting a pilot study was to test the main data collection instrument, the interview protocol, as well as the logistics of the study in hopes to improve its quality prior to the full study. Data collected from the pilot study served as a benchmark and data triangulation for data collected from the full study.

One individual and one established FUSG were interviewed for the Institutional Review Board approved pilot study. Six individuals and two established FUSGs were interviewed for the Institutional Review Board approved full study. Thus, seven individuals and three established FUSGs with a total of 24 participants were interviewed for this research study.

Individual participants selected represent a cross-section of staff tenure and different level of SIS usage. The three established FUSGs, FUSG1, FUSG2, and FUSG3, were selected because the FUSGs members have a built-in rapport from their on-going interaction and represent a cross-section of staff tenure with similar SIS usage within

their respective unit. By conducting both individual and FUSG interviews, the goal was to triangulate data by obtaining multiple perspectives of the same event to confirm emerging findings.

Within each FUSG, there is a cross-section of staff tenure with similar level of SIS usage. There are eighteen members for the FUSG1 group. Ten members are staff representing various functional units and eight members are from various technical units. FUSG1 members from the various functional units were invited to participate in the research because I am interested in functional users' adoption and use of the SIS. Some FUSG1 participants served as the SIS implementation team members as well as sub-team leaders during the implementation. They are key stake holders with closely related inter-dependencies from various functional units across the Big U campus.

There are seven members for the FUSG2 group representing Unit A functions across the Big U campus. There are ten members for the FUSG3 group representing Unit B functions across the Big U campus. Members from FUSG2 and FUSG3 are key stake holders for Unit A and Unit B functions respectively. Some members from these two FUSGs were part of the implementation sub-teams. They were intimately involved in the SIS implementation. As staff from these units left Big U, subsequent staff that were hired to perform these job functions became members of the FUSGs.

In addition to triangulating data by obtaining multiple perspectives of the same event to confirm emerging findings and by reviewing a cross-section of staff tenure and SIS usage, I hope to understand the dynamics and complexities of staff's experiences in regards to their perspectives of the change management strategies put in place to support their needs in the adoption and use of the SIS.

To achieve the selection of a cross-section of staff tenure and SIS usage for individual interview participants' selection process, I used the staff SIS training database to confirm the following criteria:

1. Staff experienced the SIS implementation and upgrades.
2. Staff experienced upgrades only.
3. Staff as Legacy System users.
4. Staff as Non-Legacy System users.
5. Staff as SIS heavy users, mainly updating information.
6. Staff as SIS light users, mainly viewing information.

For the pilot study, one individual staff and 5 out of the 10 members of FUSG1 who are not my subordinates participated in the interviews. Please refer to Table 1 for the criteria profile for the pilot study individual as well as the FUSG1 participants.

Table 1: *Criteria profiles for pilot study individual and FUSG1 participants*
** Denotes participant has retired but served as a part-time consultant at Big U

Participants (pseudonyms)	**Experienced SIS Implementation and Upgrades**	**Experienced Upgrades only**	**Legacy System User**	**Non-Legacy System User**	**SIS Heavy User**	**SIS Light User**
Angelina**	X		X		X	
Brad	X		X		X	
Clint	X		X		X	
Demi		X		X		X
Eva		X		X	X	
Felicity	X		X		X	

For the full study, I invited six individuals and all the members of the two established FUSGs who are not my subordinates to participate in the interviews. From the FUSG2, 5 out of 7 members participated in the interviews. From the FUSG3, 7 out of 10 members participated in the interviews. Six individuals are not participants of any of the

established FUSG interviews and represent a cross-section of staff tenure with different SIS usage levels. Please refer to Tables 2, 3, and 4 for the criteria profile of the six individual participants as well as the two FUSG participants for the full study. Please refer to Tables 5 and 6 for the demographic data and the composite criteria profile for the 24 total participants from the pilot and full studies.

Participants have been employed at Big U ranging from one month to retired with 30 years of employment. In addition, some participants have left Big U for other employment. As mentioned in the previous data collection section, pseudonyms are used for any identifiable data to protect participants' identities. Thus, the 24 participants are assigned a pseudonym in alphabetical order with names starting from A to X.

Table 2*: Criteria profiles for the six full study individual participants*
* Denotes participants no longer employed at Big U

Participants (pseudonyms)	**Experienced SIS Implementation and Upgrades**	**Experienced Upgrades only**	**Legacy System User**	**Non-Legacy System User**	**SIS Heavy User**	**SIS Light User**
Geena	X		X			X
Helen*	X			X	X	
Ivanna*	X		X		X	
Jada	X		X		X	
Katie	X		X			X
Lindsay	X		X		X	

Table 3: *Criteria profiles for the five full study FUSG2 participants*

Participants (pseudonyms)	**Experienced SIS Implementation and Upgrades**	**Experienced Upgrades only**	**Legacy System User**	**Non-Legacy System User**	**SIS Heavy User**	**SIS Light User**
Meryl		X		X	X	
Nicole		X		X	X	
Oprah		X		X	X	
Patrick	X		X		X	
Queen		X		X	X	

Table 4: *Criteria profiles for seven full study FUSG3 participants*
** Denotes participant has retired but served as a part-time consultant at Big U

Participants (pseudonyms)	Experienced SIS Implementation and Upgrades	Experienced Upgrades only	Legacy System User	Non-Legacy System User	SIS Heavy User	SIS Light User
Reese		X		X	X	
Salma	X		X		X	
Tom	X		X		X	
Uma		X		X	X	
Vanessa		X		X	X	
Winona	X		X		X	
Xena**	X		X		X	

Table 5: *Demographic data and number of participants*

Age Range	Number of Participants	Years at BU	Number of Participants	Years of Management Experience	Number of Participants
21 – 30	3	Less than 1	1	None	4
31 – 40	12	1 – 5	4	1 – 5	6
41 – 50	5	6 - 10	7	6 - 10	9
51 – 60	4	11 – 20+	12	11 – 20+	5

Table 6: *Composite criteria profiles, number of participants, and participants' names*

Composite Criteria Profiles	Number of participants for each criteria	Participants' name (pseudonyms)
Staff experienced the SIS implementation and upgrades that are legacy system users and SIS heavy users.	12	Angelina, Brad, Clint, Felicity, Ivanna, Jada, Lindsay, Patrick, Salma, Tom, Winona, Xena
Staff experienced the SIS implementation and upgrades that are non-legacy system users and SIS heavy users.	1	Helen
Staff experienced the SIS implementation and upgrades that are legacy system users and SIS light users.	2	Geena, Katie
Staff experienced only the upgrades that are non-legacy system users and SIS heavy users.	8	Eva, Meryl, Nicole, Oprah, Queen, Reese, Uma, Vanessa
Staff experienced only the upgrades that are non-legacy system users and SIS light users.	1	Demi

Data Analysis

To facilitate data transcription as well as data analysis, I used NVivo8, a computer-based analysis program software package. NVivo8 was selected because it offers the capability to import audio or video files and create transcripts directly in the software. Also memos can be created to note researcher's reflections and biases. In addition, it is capable of importing documents, including those that contain tables and images. Moreover, it has a built-in report function to allow users with no programming knowledge to easily select any document imported into NVivo8 to generate queries on the data. It is easy to code, categorize, and construct themes from the transcripts, imported documents, and memos. Once the coding is completed, the built-in report function also allows users to easily select and categorize codes to construct different themes and save each theme as a report. Lastly, all reports and transcriptions can be exported into Word or Excel documents to share the files and findings with participants and debriefers who do not have NVivo8.

Data analysis began right after the pilot study interviews were completed and was on-going throughout the duration of the study. This analysis was informed primarily by an inductive data analysis approach, namely, categorizing, thematizing, and coding (Creswell, 2003; Merriam, 1998; Moustakas, 1994; & Munhall, 1994).

According to Moustakas (1994), there are four primary steps to phenomenological research: (a) epoché, (b) phenomenological reduction, (c) imaginative variation, and (d) synthesis of composite textural and structural descriptions.

The present research study used a condensed version of the Moustakas' (1994) Phenomenological Model (p.180) as outlined:

1. Epoché: Setting aside pre-judgments and opening the research interview with an unbiased, receptive presence.
2. Phenomenological Reduction
    a. Bracketing the Topic or Question.
    b. Horizontalization: Every statement has equal value.
    c. Delimited Horizons or Meanings: Horizons that stand out as invariant qualities of the experiences.
    d. Invariant Qualities and Themes: Non-repetitive, non-overlapping constituents clustered into themes.
    e. Individual Textural Descriptions: An integration, descriptively, of the invariant textural constituents and themes of each research participant.
    f. Composite Textural Description: An integration of all of the individual textural descriptions into a group or universal textural description (condensed with step 3h for this research study).
3. Imaginative Variation
    a. Vary Possible Meanings.
    b. Vary Perspectives of the Phenomenon: From different vantage points, such as opposite meanings and various roles.
    c. Free Fantasy Variations: Consider freely the possible structural qualities or dynamics that evoke the textural qualities.
    d. Construct a list of structural qualities of the experience.
    e. Develop Structural Themes: Cluster the structural qualities into

themes.

f. Employ Universal Structures as Themes: Time, space, relationship to self, to others, bodily concerns, causal or intentional structures.

g. Individual Structural Description: For each co-researcher, integrate the structural qualities and themes into an individual structural description.

h. Composite Structural Description: An integration of all of the individual structural descriptions into a group or universal structural description of the experience (condensed with step 2f for this research study).

4. Synthesis of Composite Textural and Composite Structural Descriptions: Intuitively-reflectively integrate the composite textural and composite structural descriptions to develop a synthesis of the meanings and essences of the phenomenon or experience.

I chose to follow Moustakas' data analysis method because Moerer-Urdahl & Creswell (2004) used and validated Moustakas' approach as a systematic phenomenology data analysis method. In addition, Moustakas' method offered clear guidelines in organizing the textural and structural descriptions. Because of the number of participants, a condensed version is used in which steps 2f (composite textural description) and 3h (composite structural description) in the above outline were combined. Instead of having a separate composite textural description and composite structural description with repetitive information, a combined composite textural-structural description was created for each participant.

Both Creswell (1998) and Moustakas (1994) emphasized the importance of bracketing or epoché as the first step of the analysis to reveal the researcher's bias. The researcher sets aside, or brackets, all preconceived notions about the phenomenon at hand to the greatest extent possible by providing a full description of his/her own experience of the phenomenon. This allowed the researcher to more fully understand the experience from the participant's own point of view (Creswell, 2003). In order to reveal and bracket my bias, I used Moustakas' (1994) epoché process and reflected on my personal experience of the SIS implementation by responding to the questions from the interview protocol prepared for the study participants (see Appendix C) before I conducted the pilot study. I also reviewed my reflection prior to conducting the full study interviews.

After epoché, the second step is phenomenological reduction. Moustakas (1994) believed the reduction process must begin with "placing the research topic/question in brackets" in order to focus on obtaining a rich, accurate, and complete textural description of the experiences as they were lived by the study participants. An important component of this reduction process is horizontalization. Moustakas (1994) explained that horizontalization views every statement collected from the participants during the interviews as having equal value initially. The transcriptions from the participants were then examined in order to identify and cluster into common themes with similar meanings. Invariant themes of textural descriptions were derived from eliminating irrelevant, redundant, and overlapping statements, leaving only the textural meanings (horizons) of the phenomenon (Creswell, 1998).

Words that occurred often are seen as being salient in a participant's mind. Hence, I used the NVivo8 Word Frequency query to generate a list of most frequently occurring

words from all the interview transcriptions from both the pilot study and the full study. The Word Frequency query results were exported into an Excel spreadsheet in order to easily sort and categorize the data. To identify and categorize the frequently used words into common themes with similar meanings, I used the NVivo8 Word Frequency query results to examine each word by reviewing the statements from the transcripts associated with the word. Based on the horizontalization process as defined by Moustakas (1994), the words are categorized and classified into themes according to the context of the words within the statements. To continue the phenomenological reduction process, Moustakas (1994, p.120) stated that emerged themes are reduced and eliminated to determine the invariant constituents by testing each statement for two requirements:

1. Does it contain a moment of the experience that is a necessary and sufficient constituent for understanding it?
2. Is it possible to abstract and label it? If so, it is a horizon of the experience.

The clustered and thematized invariant constituents were considered core themes of the experience. The core themes are then created and used in NVivo8 to code the content of the transcriptions. The third step of phenomenological research is Imaginative Variation and Moustakas (1994) summarized this process as:

> The task of Imaginative Variation is to seek possible meanings through the utilization of imagination, varying the frames of reference, employing polarities and reversals, and approaching the phenomenon from divergent perspectives, positions, roles or functions. The aim is to arrive at structural description of an experience, the underlying and precipitating factors that account for what is being experienced; in other words, the "how" that speaks to conditions that illuminate the "what" of experience (p.97-98).

Creswell (1998) explained that the researcher writes a structural description of the

experience after the textural description was written. The structural description investigates *how* the phenomenon was experienced, looking at all possible alternate meanings and perspectives. Thus, with the use of the imaginative variation process, textural description of each participant was constructed by elaborating a detailed and accurate account of the experience by including examples of the participant's verbatim narrative to illustrate the emerged invariant constituent themes. The structural description of the experience for each participant, as it was lived by participants, was then written with the use of the textural descriptions of the phenomenon. The composite textural-structural descriptions were then created by capturing the experience for staff identified based on similar criteria profile. To ensure that varying frames of reference and review of divergent perspectives were achieved, I analyzed outstanding negative cases or disconfirming evidence from the participants' diverse experiences.

The fourth and last step as outlined by Moustakas (1994) is Synthesis of Composite Textural-Structural Descriptions, where a universal description of the meaning of the experience as a whole is developed with the use of the individual and group textural descriptions. According to Creswell (1998), the ultimate goal of the phenomenological researcher is to reduce the meanings of the experience to their essential structure. In addition, Creswell (1998) stated that the researcher uses the textural description to reveal *what* happened and the structural meanings to reveal *how* the phenomenon was experienced. Aspects of the experience which are universal to all the participants are invariant structures and revealed the essence of the experience (Creswell, 1998).

Study Design Limitations

This study explored the lived experiences of 24 staff that had undergone change management strategies to facilitate SIS adoption for a particular university. Because there are only three established FUSGs, staff members of one FUSG was interviewed for the pilot study and the data collected for the pilot study was used in the full study in order to provide a benchmark and serve as data triangulation for the study.

In addition, Yin (2003) stated that one of the common concerns about case studies is that they provide little basis for scientific generalization. It is the inspiration of this study that the phenomenological interpretation of the staff's lived experience resonates with readers' lived experience that have undergone a SIS implementation with similar change management strategies, and that the essence of staff's lived experiences may reveal how change management strategies inform staff's decision in the adoption of an innovation. If the interpretation of the lived experience is meaningful and resonates with readers' lived experience, then there may be the potential of some perceived transferability.

Another limitation is researcher bias because I was intimately involved with the SIS implementation and the planning of the change management strategies. van Manen (1990) indicated that the abstraction of research is a common hazard to academic activity that it lost touch of the real world. Thus, van Manen (1990) encouraged phenomenology researcher to gain a real touch of the phenomenon by intimately involved in the phenomenon under study. Therefore, due to this precise involvement, I hold a positive bias and an appreciation for the importance of how staff's lived experiences influence the outcome of the SIS implementation and adoption. Nevertheless, identifying these biases

at the onset as well as reflecting this information helped me to be mindful of setting these biases aside throughout the data collection and analysis process. I used bracketing to ensure data and tentative interpretations are accurate and plausible.

According to Thompson et al. (1990), “the process of bracketing refers to methodological procedures that allow for seeing the text from a phenomenological perspective without predefining participants' experiences in terms of the interpretive framework”. Two specific procedures have been recommended for facilitating bracketing: (a) themes are rendered in emic terms (i.e., those of participants) and (b) the evolving thematic description is periodically subjected to critical evaluation by an interpretive group (Thompson et al., 1990). As mentioned in the data analysis section, in order to reveal and bracket my bias, I reflected on my personal experience of the SIS implementation by responding to the questions from the interview protocol prepared for the study participants.

In addition, I described and recorded the categorization process during coding to ensure triangulation and reliability of the study. For data triangulation, I compared the results of different data collection methods for the same events. Furthermore, I ensured there were sufficient examples and quotes from field notes that were explicitly tied to findings so that an independent researcher can assess the quality of the evidence supporting the findings.

Moreover, I used member checking to assess the interpretation's credibility and establish trustworthiness. The transcriptions as well as the textural and structural descriptions were returned to participants for commentary. They were informed that their comments, critiques, and suggested changes were very important to the investigation. It

was emphasized to participants that they were the expert when it came to describing their lived experiences. All participants confirmed that they agreed with the textural and structural descriptions.

Moreover, I asked a colleague as well as a fellow doctorate Instructional Technology student to act as peer debriefers for the duration of the research to comment on the themes and findings as they emerged. They each spent 30 to 40 hours to review all the transcriptions as well as the textural and structural descriptions and noted plausible themes. The debriefers compared their noted themes to the themes emerged from my data analysis process as well as the composite textural-structural descriptions and the synthesis composite textural-structural descriptions. After a thorough review, both debriefers confirmed that they agreed with my emerged themes and the composite textural-structural descriptions as well as the synthesis composite textural-structural descriptions.

Yet another limitation is the use of retrospective data in social research such as the present study. This research studied the lived experiences of Big U staff in the SIS adoption process during the SIS implementation that happened eight years ago. Thus, the participants' accounts of their experience might have been affected by memory problems such as the inability to accurately recall event details. However, in reviewing the participants' interview transcriptions, the accounts provided by participants of their experiences seemed to be fairly consistent despite of the time elapsed since the SIS implementation had taken place.

Summary

The goal of this study informed by phenomenological perspectives was to better understand the lived experiences of university staff in the SIS adoption process at Big U. This research design seems most appropriate because phenomenology is a qualitative research method used to explore and interpret lived experiences. Given the past informs the present and both inform the future of adoption, by revealing and understanding the concerns of the past, this study informs the present in the hope of gaining insight about the best practices for the future in SIS adoption (Moustakas, 1994, van Manen, 2007; Vickers, 2002).

This chapter presented the research methods used for this study, including the research design, the research setting, the researcher background and role, the data collection as well as the data analysis techniques and processes. Next chapter informs how data will be presented.

CHAPTER 4

PRESENTATION OF DATA

The transcriptions of the of all the participants based on the interview questions from the Interview protocol in the pilot and full study interviews were analyzed using the phenomenological method presented in the data analysis section in the previous chapter. Relevant words were selected from participants' experiences from all the interview transcriptions by first bracketing the research question and sub-questions. The horizontalization process was then used where each word was initially granted equal value and examined by reviewing the statements from the transcripts associated with the word. The selected words were then checked for redundancy and vagueness. Repetitive words were removed and the remaining words were categorized according to their invariant constituents or meanings. The invariant constituents that were related to each other were clustered into themes.

Creswell (1998) stated that the researcher uses the textural description to reveal *what* happened and the structural meanings to reveal *how* the phenomenon was experienced; hence, in this chapter and the next chapters, with the use of the imaginative variation process, textural description of each participant was constructed by elaborating a detailed and accurate account of the experience. Examples of the participant's verbatim narrative from the interview transcriptions were included in the textural descriptions to illustrate the emerged invariant constituents themes. According to Moustakas (1994), the

purpose of including verbatim narratives from participants is to preserve the essence of the meaning and the context of the expression. The transcriptions were sent to all the participants and they validated the accuracy of the transcripts. From the data validation process, some of the participants' comments are:

1. *Your data analysis looks spot on for me.*
2. *I verify your summary of my experiences and comments is correct.*
3. *Looks fine. Of course, I don't recall saying 'uhm' quite so often, but you have the recording so I guess it's right.*
4. *I think your descriptions are accurate. Is it possible to remove the uhms?*
5. *This is great! I cannot believe how many times we use the word "uhm". We have a strong vocabulary and we still use "uhm". Can you remove them?*
6. *That sounds about right; however, can we please remove the uhms!*
7. *I am fine with this...no changes needed, except for the uhms.*
8. *This looks very good. I have no changes, maybe except the uhms.*
9. *Everything is accurate.*
10. *Looks great to me! The descriptions are accurate and do reflect my experiences.*
11. *I verify that all the descriptions are accurate and reflect my experiences.*
12. *I have reviewed the textural and structural descriptions and it all seems true to form.*

Based on the data validation results, participants requested to have all the 'uhms' in their speech pattern removed from the transcripts. Thus, the single-spaced italic paragraphs within the textural descriptions denote the participants' verbatim narrative

from the interview transcriptions except pseudonyms are used for any identifiable data to protect participants' identities and the "uhms" were removed from the participants' speech pattern. The structural description of the experience for each participant, as it was lived by participants, was then written with the use of the textural descriptions of the phenomenon.

Criteria Profiles

The participants are grouped by the following five criteria profiles. Please refer to Table 6 for participants in each criteria profile.

Table 7: *Criteria Profile 1*

Staff experienced the SIS implementation and upgrades that are legacy system users and SIS heavy users.		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Table 8: *Criteria Profile 2*

Staff experienced the SIS implementation and upgrades that are non-legacy system users and SIS heavy users.		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Table 9: *Criteria Profile 3*

Staff experienced the SIS implementation and upgrades that are legacy system users and SIS light users.		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Table 10: *Criteria Profile 4*

Staff experienced upgrades only that are non-legacy system users and SIS heavy users.		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Table 11: *Criteria Profile 5*

Staff experienced upgrades only that are non-legacy system users and SIS light users.		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Emergent Themes

In addition, under each of the five criteria profiles above, the textural descriptions of the experience of each participant is clustered by the ten emergent themes. The ten emergent themes are:

1. Feelings Generated toward the Mandated Change.
2. System attributes that contributed to the acceptance or resistance of the SIS.
3. Staff attributes that contributed to the success of the SIS Implementation.
4. Communication.
5. Functional Users Support Group.
6. Training.
7. Team.
8. Critical support contributed to the SIS adoption process.
9. Leadership.
10. Feelings generated from the SIS adoption process.

The textural and structural descriptions were submitted to the participants and the debriefers to validate the accuracy and completeness of my interpretations. All the participants and both debriefers validated the accuracy and completeness of my interpretations and did not have any modifications.

Summary

This chapter described how data would be presented and organized. Creswell (1998) stated that the researcher uses the textural description to reveal *what* happened and the structural meanings to reveal *how* the phenomenon was experienced; thus, participants were grouped by the appropriate criteria profiles with the textural descriptions clustered by the ten emergent themes. Structural descriptions for each participant were created based on the textural descriptions. The next five chapters, with one chapter for each criteria profile, will include the textural and structural descriptions for the 24 participants presented within the appropriate criteria profile.

CHAPTER 5

TEXTURAL AND STRUCTURAL DESCRIPTIONS

Criteria Profile **Staff experienced the SIS implementation and upgrades that are** **legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Brad's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Brad stated he felt victimized because of all the negative issues brought on by the mandated change.

> *But you know it was something that we were forced to do and not happy about it. The politics at the time, all the leadership issues, it was like there was nothing good about it. It seemed so like such a mountain to climb so I feel victimized at times.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The negative feelings generated toward the mandated change were because of the need to learn a new system that was believed to be regarded as an inferior system to the current legacy system.

> *There wasn't a lot of enthusiasm on campus about going to the SIS. That was not our chosen product. It had all kinds of reputations and none were good. So it was difficult not only to get the community to buy into in, the actual implementation team was having problems buying into it.*

> *From the Unit C standpoint there was apprehension hum because it was well known that it's going take longer to enter information because there were more forms and it was going to be more timely.*

In addition, learning the new SIS was like learning a new language which was intimidating.

> *And learning SIS speak...I mean...different pronunciation for different forms. I remember going to the first Summit and thinking there's no way we're gonna remember these forms and talk like these people talk!*

However, positive feelings were also generated because of new functions and capabilities the new SIS provided.

> *I think SIS did open the door a little bit for us because it was state wide. There were some disadvantages but having the State involve with it, it does provide impetus with some things that might not have happened like we are moving toward electronic transcripts, the concept of imaging, that all came as a result of, you know, of SIS initially. So there are things that have made or will make our lives a lot easier. Yea, right now, I think, imaging is our greatest.*

Staff Attributes Contributed to the Success of the SIS Implementation

Brad worked for Big U for over 5 years before the implementation. As one of the Unit C function directors and the Unit C function implementation sub-team leader, Brad stated that it was frustrated to work with the group because they all have different procedures for the same functions.

> *From the Unit C function standpoint, it was interesting because in the process of doing this, we realized that we had seven different Unit C departments on campus that did things seven different ways. Using 7 different values for the same thing and trying to get consensus with each college that believed that their way was the right way, it was mind boggling. That was a frustration. It really wasn't bringing one process together but 7 very different processes and get consensus and that was tough. So it took us longer that some of the other teams.*

Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Brad built consensus among all the Unit C departments across campus and the group worked together to put in place best

practices and unit function documentation..

> *It was just a lot of persistence. You just keep banging at it and going through and going through and getting people to finally understand. I mean you have to work at it. People will resist up till the very end. Much like the Congress, you pull people on your side and you build a case around it and documented the procedures and we vote on it. So it was a real exercise in consensus building. Once the team got on board and the group got through building the validation tables were a major undertaking. Then I think it was easier and people became more positive and that helped going out to the colleges and the Unit C offices. The representatives would go back and kind of alleviate some of the fear. Some of the rumors were going on either to confirm or just proved that they were true. It was a process.*

Communication

Brad thought that written communication at the implementation stage was not as effective as verbal communication.

> *I think the face-to-face communication...I'm not sure the written communication were all that effective, newsletter and stuff like that...I'm not sure people really read it because they were not buying into it at that point in the implementation so they weren't really interested in reading. It really took more personal one-on-one and group interactions during the implementation.*

Functional Users Support Group

Because the SIS implementation created an overwhelming amount of information that had to be learned, Brad felt the FUSG was beneficial in serving as communication and support tools.

> *We had a Unit C functional users support group for a short time. Maybe not longer than a year after SIS went live. And then we sort of broke off and then the Unit C Issues group was created. It was a good way to make friends, meet people, it was a good working relationship. Very positive.*

Training

The Unit C function implementation sub-team was responsible for learning the system functions for their unit function, documenting new business processes for the new system, and to perform function specific training for their unit function.

> *Training program was good and I think it was critical particular the initial training that we had for general usage. The individual Unit C function training eventually we came to a point we had trouble writing documentation that would fit each of the colleges but we worked together and we came up with a template and the colleges would then individual tweaked to make it worked with their procedures. And we have one document that we would use in the training and it worked pretty well.*

Team

Upon Brad's reflection, the collaboration from the teamwork that contributed to building personal relationships stood out most for him during the SIS implementation.

> *I think it brought together people that wouldn't have been brought together otherwise. I remembered my team a couple people had communicated a lot over the years but they never met face-to-face. So when they came to this meeting, they were like we talked all the time but we never met each other so I mean that happened a lot. We were and we still are a big university that people were working in their own little...dare I use this term because it brings up bad memory, silos, and we just didn't get out. But this way we built personal relationships that really have carried over beyond the SIS project.*

Critical Support Contributed to the SIS Adoption Process

In addition, Brad thought that the most important things and the things he liked most in supporting his adoption and use of the SIS was the easy access to both internal and external functional experts for problem solving and troubleshooting as they occurred as well as a project manager to keep the team on tasks.

> *For some of us, we were really dense, we can keep going back to the consultant and explained this to me again, the repetitiveness that helped, and then the project manager was helpful. But I think that we have to mention that that fact that you were hired as a trainer and you came with SIS experience and training and I think that was critical because we knew nothing about the SIS and we were just getting exposed to it initial by the different consultant and we didn't understand what was going on. Because you understood it, you gave us training along the way that helped us with alleviating with a lot of our fear and misunderstanding. I don't think we would have the same success if they brought somebody in as our trainer that knew anymore about the SIS than we do. I think that having 3 experts in the unit function, the vendor consultant with her expertise in the SIS, you having expertise in the SIS and knowing how to do training, and then the project manager with expertise in project management, were really 3*

critical things.

Leadership

Brad affirmed that leadership support during the SIS implementation was critical. Brad felt that it was crucial that leadership put politics aside for the good of the project.

> *The one thing that we fought at the time was that Unit C function was supposed to be the first to go but we were the last one to go and there was just no sensitivity to our cycle until the very end which was causing frustration. In the end we got what we wanted, what it should have been but it was a struggle the whole way through. Like Clint said I hated all the politics. It was painfully, I mean, it almost made you ill at times; they get so worked up about some of the stuff.*

In addition, Brad appreciated the funding and support leadership provided for the SIS implementation team in order to move the project along.

> *Having the SIS implementation team moved to the same office helped and I think that's what bonded the team and it's one of the things we do that other schools didn't and that was the difference. And then what Clint said about back filling a lot of the positions that led to people able to devote more time to the implementation instead of doing a full time job and then doing this in addition to that. So really it really did help. And that I think with those retreats that we had those sessions at times the topics and the materials were a little over the top but it was the other things that took place with the discussions that we had and personally I think they helped me. And we would talk about the project and the issues that we were having.*

Feelings Generated from the SIS Adoption Process

Brad declared that although there were lots of work and lots to learn, the implementation experience was a positive one due to the collaboration of team members and the building of personal relationships beyond the SIS implementation. The breakdown of the silos enabled staff from across the university to gain understanding and respect of other units; thus, staff were better able to work together. The implementation was a growing and learning experience that was worth the work.

> *I think it brought together people that wouldn't have been brought together otherwise. I remembered my team a couple people had communicated a lot over*

> *the years but they never met face-to-face. So when they came to this meeting, they were like we talked all the time but we never met each other so I mean that happened a lot. We were and we still are a big university that people were working in their own little...dare I use this term because it brings up bad memory, silos, and we just didn't get out. But this way we built personal relationships that really have carried over beyond the SIS implementation.*

Overall, Brad reflected the SIS implementation generated a wide range of emotions from feeling like a victim to emerging as a champion.

> *I think I went into it feeling like a victim and then came out of it feeling like more of a champion!*

Brad's Structural Description

Brad worked at one of the Unit C function offices for Big U for over 5 years before the SIS implementation and was a respected leader of Unit C function offices across the campus at Big U. Thus, Big U benefited from his commitment and accountability to the university as the Unit C implementation sub-team leader in making the SIS implementation successful despite of his negative feelings toward the SIS. He took ownership in learning the system functions for his unit, building consensus among all the Unit C function offices documenting new business processes for the new system, and performing function specific training for his unit. Although initially he disliked the mandate of a new SIS because of its complexity and the difficulty that compared to learning a new language, upon reflection he felt the SIS was beneficial because it provided new functions and capabilities to improve processes.

Brad believed that the support received from the Unit C FUSG was crucial because of the team work and communication this group provided. Information flowed from the implementation team leaders to their team members. Team members in turn communicated to their units. He also felt that written communication about the

implementation from informational website was not effective during the beginning of the implementation because staff were not interested in the SIS and did not want to read about it. Thus, it was better to relate information in face-to-face meetings. After the SIS went live, communication from the FUSG1 meetings and the updates emails about upgrades from the SIS office were very effective.

In addition, the general overview training provided by the SIS office was helpful to staff before attending the unit function specific training. In Brad's opinion, the three elements that were crucial in order to have a successful implementation were having an internal functional expert that knew the SIS to provide guidance and to put a training program in place; an external functional expert from the vendor to answer questions about the SIS, and a project management to track tasks and milestones to ensure the implementation was on target with the project time line.

Brad appreciated the accessible support and timely responses from the SIS office as well as implementation team leaders when problems occurred during the implementation which alleviated some of the frustrations. Although there were an overwhelming amount of work and new information to learn, Brad felt the implementation experience was a positive one due to the collaboration of team members and the gained personal relationships extended beyond the implementation.

Overall, Brad reflected the SIS implementation generated a wide range of emotions from feeling like a victim to emerging as a champion due to the politics and leadership issues at the onset of the implementation. However, his perseverance in building consensus among the Unit C team members resulting in the team presenting a united front to persuade leadership to go along with their proposed go live time line due

to their work cycle. He felt a sense of outstanding accomplishment when the SIS went live successfully and felt positive about the SIS implementation experience despite of all the negative issues that came along the way.

Ivanna's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Ivanna stated she was curious but apprehensive about the new system. However, as she learned more about the new system, she embraced it.

> *I previously come from another university where we've just gone through a similar transition from one system to another so I kind of knew you know a little bit about what it was going to involve but definitely not on the same scale as it was at Big U. So I think it's more of a…just curiosity and wonder what the new system is gonna do, what it looks like and then as we learned more, you know, probably a little bit of apprehension but then as we learned more and more we just moved along and embraced it.*

However, Ivanna observed that for staff that had been long time employees at Big U within her unit, they were nervous and felt threatened because they perceived that they were no longer the system experts of the unit.

> *There is a lot of nervousness especially for the staff that had been there for a while, like they were kind of giving up their edge that they had over newer staff. Like their playing field had been leveled, they no longer had this other knowledge that nobody else had and I think some of them maybe felt a little bit threatened by that.*

On the other hand, Ivanna noticed that the mandate for implementing the new system did not distress new staff.

> *I would say just to generalize probably the newer staff were more eager to learn just because everything was so new they didn't know any different. It was like, so this is just something else we have to learn so they just dealt straight into it whereas some older staff they were like well it looked like that it does this and it was like this in the old system, you know, quick to notice the differences and the short comings of the new system because they knew the old system so well.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The negative feelings generated toward the mandated change were because of the fear of the unknown when it came to learning the capability of the new SIS. However, as staff learned more about the new SIS and management pointed out its benefits, positive feelings were generated because of the better technology and functions offered by the new SIS.

> *I think initially there was some hesitation, you know, kind of the unknown, what it will do. I think initially there was probably excitement and then there was a phase where oh how are we going to do all these things that we currently do? But I think that as we learned more about what it could do, we saw the benefits that came with it so I think in the long run, it was a good thing, you know, we saw it that way.*

Staff Attributes Contributed to the Success of the SIS Implementation

Ivanna was part of the Unit C implementation sub-team and was excited to be part of the implementation team.

> *I was excited to be part of the team. My role is more of a technology so I guess what comes with that role was embracing change a little bit because technology is always changing.*

As a part of the Unit C implementation sub-team, Ivanna took ownership in learning the new system, documenting new procedures, configuring the Unit C functions based on the received feedback, and providing necessary function specific training for her own unit.

> *I was an implementation team member so you know our role is really sort of learning the new system, sharing the information with the office and getting feedback on how they want it configured. And doing those configuration and coming back doing the documentation because a lot of the procedures have to change. Then sharing that documentation with the staff, getting their feedback, revising the documentation, and then providing training and you know, there are the trainings that were provided by the SIS office, but we did the more specific training that deal with the processing of Unit C. Then went back to give the staff lots of training opportunities and lots of hands on practicing time. And I think as*

> *we did that and showed them and we pointed out the benefits, I think, you know, it really won them over.*

In addition, because of her commitment to the implementation and the university, Ivanna along with sub-team members worked extra hours to get the work done.

> *It was such a priority for the university that you know we all knew that we were going to transition, it's just a matter of getting the work done and make it happen, and it's something that we had to do and I think everybody was focused on making it happen. I think lots of extra hours were put in, that was the main way that it got done.*

Communication

Ivanna thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective.

> *I mean my main role at that time is kind of interacting with the staff and you know dealing with some of their fears and apprehension about going to a new system. We were really trying to engage the staff and let them play an appropriate role in how the system was configured. You know kept them up to speed in what we learned and shared it with them, you know, as we learned things.*

In terms of communication for the implementation sub-team, Ivanna thought it was helpful that the SIS office communicated important information related to the new SIS being implemented.

> *In terms of communication, I know that the SIS office would send out email you know if there were important things to know or there was an upgrade so those were good help. In terms of staying on tops of things, particularly if there were a new release by the vendor that everybody needed to know about, we knew that we could rely on the SIS office to provide us with that information.*

Functional Users Support Group

The SIS implementation created an overwhelming amount of information that had to be learned. Thus, Ivanna felt the Unit C FUSG and the FUSG1 were beneficial in serving as communication, learning, and support tools.

> *I think the implementation team kind of became the users group and through the meetings you would know who on the implementation team was working on what so you had a question and thought somebody might be a good resource, you just pick up the phone and call.*
>
> *We kind of had continuous dialogue, picking up the phone, sending an email or discuss some issues in the meetings. We had fairly regular meetings with the Unit C FUSG.*

However, Ivanna thought the SIS office served a key role in providing support and assistance that was valuable.

> *I guess what comes to mind was not necessary formal user support just kind of knowing that the SIS office staff were there and that they were always available to answer questions. If we were having any particular issues, like if we thought the system wasn't quite doing what we thought it should, we could call them and they would research and if it required to get in contact with the vendor, they would do that. Kind of saved us a lot of legwork. Again I think just having a few point people to contact, that kind of know everything that's going on with the system was a good thing. You know you didn't feel like that you are completely out on your own.*

Training

Ivanna and the Unit C implementation sub-team were responsible for learning the system functions for their unit, documenting new business processes for the new system, and making sure Unit C staff received appropriate training. Ivanna commented that the centralized training provided by the SIS office was helpful in providing staff the basic knowledge needed for the SIS.

> *I remembered the SIS office was kind of leading the effort, they provided some centralized training which was a huge help, then each office didn't have to provide that basic training for their staff. Everybody knew that everybody at the university was receiving that same basic training so everybody had a good solid understanding upon which they could build. So if some of that training was, you know, how to go into the system and search for record, how to create new record, those kinds of thing, which everybody really needs to know how to do.*

In addition, Unit C staff received function specific training and plenty of hands-on practice time to learn the new SIS in order to perform their daily job functions in the new

SIS.

> *We gave them a lot of training, we gave them a lot of hands on practice time with the system where they can go through the procedures, you know, the tasks that were part of their daily job and tried them in the new system. As they got comfortable like that, I think probably a few of them got won over and actually looking forward to the new system.*

Team

Upon Ivanna's reflection, teamwork within the unit in helping a long time employee to adopt and use the SIS stood out most for her.

> *At one point there was like a whole group of us saying this isn't so bad you know and she was realizing that she was the only one so I guess that kind of just pushed her towards realizing it, that it was inevitable, she has to use it but it was how she feels about it changed.*

In terms of teamwork within the implementation, Ivanna appreciated the collaboration among the implementation team members.

> *Having the SIS implementation team which has representatives from all the offices so that we can kind of come together and commiserate and learn from each other, you know, as everybody is going out there and researching or reading the SIS documentation and finding out new things and sharing that with each other as well.*

Critical Support Contributed to the SIS Adoption Process

Ivanna thought that the most important thing in supporting her adoption and use of the SIS was the support of the SIS implementation office staff which included an internal and an external functional SIS experts, a project management, as well as all the implementation team leads, to help resolve issues and to ensure the SIS Unit C functions are working properly.

> *In terms of just support I would say just having the central team there, or I guess what essentially became the SIS office, to just sort of coordinate things. I think this took a huge burden off of everyone else that was involved. And you didn't feel like you have to read every single piece of documentation or check every single email that came out from the vendor or you know keep up on all those things*

> *because there were people there to watch those things and worked out any issues that were discovered, you know, we didn't have to worry about communicating that with the vendor, there were people there that we informed and they worked out all the details to resolve them. I would say it's probably the biggest benefit.*
>
> *Also, the importance of having milestones; otherwise, it would just seem completely overwhelming, divide tasks into smaller chucks, you know having dates that you hope to accomplish things by, almost like a checklist so you can check them off and feel good about small accomplishment.*

Leadership

Ivanna affirmed the importance of leadership support from Unit C management team to ensure a smooth transition for staff during the SIS implementation as well as subsequent upgrades by providing information as well as involving and engaging staff early on so that they felt they were part of the process.

> *We asked the people that actually do the work test to see how it worked. Yeah it just kind of engaging them from the very beginning so you know they felt they had a part on how it turned out. So I say that was probably my biggest take from this whole experience was just you know that level of communication is important, you know, it's easy when you are engaging in something like that to get caught up in completing the tasks and you forget to let staff involve. It isn't necessary at those early steps but I think the reward later on in terms of how quickly people embraced it is probably the benefit. It may take a little bit longer too because you can just make the decision on your own and say that's the way it's going to be but in the long run….and I don't think we did that a whole lot either but just enough and letting everyone know that they have some sort of role and some sort of decision in it helped.*

As for leadership support for the implementation team and sub-teams, it was important to provide the necessary resources to ensure the team members had time to focus on implementation tasks and to explore the best way to implement and setup the system to take full advantage of what the system had to offer.

> *I mean for me personally it's a matter of balancing, you know, the implementation with still doing a job. I think the implementation went pretty well but I can only imagine how much better it could have gone if there could be more resources dedicated to it. There was definitely a lot of work that had to be done and you know a lot of extra hours were put in so you know things that we could have spent*

> *more time considering about the set up to be even better you know, could have been done a little bit better.*

Feelings Generated from the SIS Adoption Process

Ivanna declared that the implementation was a positive growing and learning experience. She enjoyed the excitement of setting up a new system, the involvement of training the staff, and showing staff how the new SIS would benefit them.

> *I was really glad to be a part of it, to see kind of a creation of something from the very beginning, to actually play a role in how it turned out and getting to be involved to training staff, for me was a lot of fun, kind of showing them something I was excited about and highlighting you know this is going to make your job easier and this is how it is going to allow you do this quicker.*

Ivanna's Structural Description

Ivanna worked for one of the Unit C function offices at Big U for a couple of years before the SIS implementation took place. She was part of the Unit C implementation sub-team during the implementation and was responsible for creating Unit C function documentations as well as training staff within the unit. She left Big U about two years ago.

At the beginning of the implementation, Ivanna stated she was curious but apprehensive about the new system. Because she had gone through a similar transition at her previous employment, she was familiar with activities surrounding the changing of a new system.

Ivanna observed that for staff that had been long time employees at Big U within her unit, they were nervous and felt threatened because they perceived that they were no longer the system experts of the unit. On the other hand, Ivanna noticed that the mandate for implementing the new system did not distress new staff because they did not have to go through the transition of going from the legacy system to the new SIS.

The negative feelings generated toward the mandated change were mostly because of the fear of the unknown when it came to learning the capability of the new SIS. However, in order to generate positive feelings toward the change, management pointed out the benefits of the new SIS and explained the better technology and functions offered by the new SIS in hope that staff would experience a smoother transition in adopting and using the new SIS.

When asked about her experiences about the implementation, Ivanna stated she was excited to be part of the implementation team because of the opportunity to setting up a new system and to improve the processes. Because of her technology role, Ivanna was opened to technology changes. As a member of the Unit C implementation sub-team, Ivanna took ownership in learning the new system, documenting new procedures, configuring the Unit C functions based on the received feedback from staff, and providing necessary function specific training for her unit. In addition, because of her commitment to the implementation and the university, Ivanna along with sub-team members worked extra hours to get the work done.

Ivanna thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective. Ivanna saw the interaction with staff as a way to calm their fear by providing them with timely information and asking them for their feedback to provide a sense of involvement.

Moreover, Ivanna and the Unit C implementation sub-team were responsible for learning the system functions for their unit, documenting new business processes for the new system, and making sure Unit C staff received appropriate training. Thus, Unit C

staff received function specific training and plenty of hands-on practice time to learn the new SIS in order to perform their daily job functions in the new SIS.

The SIS implementation created an overwhelming amount of information that had to be learned. Thus, Ivanna felt the Unit C FUSG and the FUSG1 were beneficial in serving as communication, learning, and support tools. However, for the day-to-day support at the implementation level, Ivanna thought that the SIS office served a key role in providing support and assistance that was valuable because it allowed Ivanna to have more time to focus on the implementation tasks for Unit C. The SIS office communicated important information such as system issues and upgrades information as well as researched and coordinated troubleshooting problems with the vendor as well as technical support. In addition, Ivanna commented that the centralized training provided by the SIS office was helpful in providing staff the basic knowledge needed for the SIS before staff attended the unit function specific training.

Upon Ivanna's reflection, teamwork within the unit in helping a long time employee within her unit came to term with her resistance. Not only did the employee adopt and use the new SIS, she felt encouraged about the change. As for the teamwork within the implementation, Ivanna appreciated the collaboration among the implementation team members. Ivanna thought that the most important thing in supporting her adoption and use of the SIS was the support of the SIS implementation office staff which included an internal and an external functional SIS experts to help resolve issues, a project manager to provide milestones and deadlines to keep track of the numerous implementation tasks as well as the implementation team leads to provide leadership to get the needed support for a smooth implementation.

Ivanna affirmed the importance of leadership support from Unit C management team to ensure a smooth transition for staff during the SIS implementation as well as subsequent upgrades by providing information as well as involving and engaging staff early on so that they felt they were part of the process. As for leadership support for the implementation team and sub-teams, it was important to provide the necessary resources to ensure the team members had time to focus on implementation tasks and to explore the best way to implement and setup the system to take full advantage of what the system had to offer. However, due to budget constraints, there were not adequate resources to provide enough backfill position to relieve all implementation team and sub-teams members to solely perform implementation tasks.

Nevertheless, Ivanna declared that the implementation was a positive growing and learning experience. She enjoyed the excitement of setting up a new system, the involvement of training the staff, and showing staff how the new SIS would benefit them.

Jada's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Jada stated she was nervous about learning a new system.

> *It's so much when you try to learn a new system, for me personally, when I'm learning something new I just kind of want to get that knowledge and I want to get it quickly, that's just me. Of course going into it I was nervous because it's an entirely new system.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Jada was anxious because she heard from other staff that it was not easy to navigate the new SIS because of the various screens.

> *I remember thinking a lot like, you know, I didn't know what it looked like and*

> *what it would do. And I have heard from just a few people who previously that you would be going from one screen to the next and so from a personal stand point, I remember thinking and feeling a little bit overwhelm but also thinking OK as long as I'm properly train, we'll work on it. And I was so enthusiastic and wanting to learn about the system.*

However, as Jada learned more about the new system, she believed that the legacy system was antiquated. In addition, Jada thought that although the new SIS was different, the processing of the Unit C information was somewhat similar to the legacy system.

> *However, with learning the SIS, overall, it wasn't where things are going, well of course with SIS, when you look at it, it is totally different from the legacy system because the legacy system was very antiquated.*

Moreover, Jada saw moving to the new SIS as a step forward moving from manually entering data to downloading the information.

> *I saw it overall as a step forward. You know I started in this office in 94 and so I just want to use an example. In 94 we were entering all information that we received through mail, all of them were in paper form, and we have one person that entered all of them manually. When we made the shift to the SIS, we were able to download that information.*

Staff Attributes Contributed to the Success of the SIS Implementation

Jada was open-minded and eager to learn the new system. In addition, Jada felt her unit's management being on the implementation sub-team was beneficial because they kept the staff well informed. Moreover, she felt her unit had a good management team in place that were knowledgeable and were good in training staff.

> *From a personal stand point you want to grasp this system in a hurriedly kind of a manner, you know to master it and that maybe that's just how I approach things and as I mentioned we are doing a lot of processing so you want a system that is efficient and a system that is going to allow you to process documents in a timely fashion. And also you want the transition to be easier so you know all in all it also depends on how open-minded you are to the system. So that's just the core, so I approached it in that manner. As I mentioned I was a little anxious about learning the new system but we have good people in place that were good trainer and knowledgeable so that helped with the transition.*

Communication

Jada thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective.

> *The management on the team would share some of that information and at that time of course I was not in the role that I am in right now but I'm pretty sure he would share that information within the management meetings and some of that information get send down to us, verbally if not all the information, at least we were able to know we are going live on a new system. So we were informed that way. So you know from that you know a new system is coming so it wasn't a surprise.*

After Ivanna left Big U, Jada was promoted to a manager and felt that it was her responsibility to keep staff well informed. She also appreciated the communication disseminated by the SIS office to keep the university informed about the SIS.

> *Communication is key and working in an office, well working in a university, is always having changes in policies and procedures and how we do things in our office and across the university with regards to using the SIS. In my management role now, I always tried to do the best I can to keeping everybody abreast on different knowledge, specifically with the use of SIS and that the staff knows and there won't be any surprises and that allows us to work better and more efficiently. So when we have upgrades, we know about them as far as the SIS office sending out the newsletter or when you all send out information to our management and then they let us know about the upgrades and we can start the testing.*

Functional Users Support Group

Unit C functions were one of the major functions and because of their processing cycle, it was the last function to go live with the SIS implementation. Hence, there was a transition period that Unit C staff had to enter the information in both the legacy system and the new SIS. The Unit C management team served as the Unit C staff's functional users support group and Jada believed that the support received from the Unit C management team helped staff transitioned well.

> *I worked in an office that has a large staff and we were processing in the legacy system and things had to be entered twice. We had some information that we had entered in the legacy system and some information. We started using the new system in 2005 and putting information into the SIS so we were still working with 2 systems simultaneously. It may seem crazy but actually at the time we were using them, we had to support what were still in place. So we had management team that could show us how it was done and how we were going to proceed forward and there was never a lack of information and so you know as far as support and things like that, there was never a break in that, we always have consistent support and we always have open communication so with all the changes and implementation, I always felt very good about them.*

In addition, Jada thought the SIS office served a key role in providing support and assistance that was valuable.

> *I think the most important thing is, well it's going to have two parts, is to maintain and to keep communication with the SIS office and vice versa, for the SIS office informing us of their practices…best practices when it comes to using the system and keep communication with the internal SIS person in our office so that we can get that information. You know that's just very necessary. I know you all and I think the support we get from the SIS office is the true testament of open communication and of course we have our own internal person that was part of the SIS implementation and so just for this person being on that team and knowing you all, of course I got my own relationship with the SIS office staff so I think that it's open and you guys are accessible to us, it has been what I like most.*

Training

The Unit C implementation sub-team was responsible for learning the system functions for their unit, documenting new business processes for the new system, and making sure Unit C staff received appropriate training. Jada commented that the management team was patient and answered questions about the new SIS and it helped her learned the new SIS.

> *I think what helped us was that we had an internal functional trainer who was part of the implementation team that has done some training with the vendor consultant and she was a patient enough instructor or a person that allowed us to ask questions and she trained us on the system so that also helped.*

In addition to receiving function specific training and plenty of hands-on practice

time to learn the new SIS with detailed manuals on step-by-step processes, the staff also went through basic training offered by the SIS office before hand.

> *Yes and I still do the staff training. I haven't done it this year yet but it was so core and key to our processing that it was just very necessary. So once Ivanna created the manual, very detail, very good in explaining step-by-step processes of how we do things, again we had training classes for an entire week with regards to each process, we would go over to the training room and sit and learn about SIS. You know get refreshed on information we needed to know with regards to the forms. So definitely that's key. And also I went to the basic training where information was given out about the different forms in SIS. You know the title of the forms are listed and what information and functions will be contained in those forms.*

Jada is now in the management role and she provides training for new and existing staff.

> *I have a good teacher in which I modeled and it just made everything better. And again the information is already in writing so of course with new staff coming on board, they were able to have a manual and able to sit with me or go over to classroom training or however I decide to train. Again having that documentation just made it easier.*

Team

Upon Jada's reflection, she felt the teamwork from the Unit C management team were key for her to adopt and use the SIS.

> *I felt that I have confidence about the people on the SIS task force, the management team. What made me feel very comfortable even for the fact that before I learn about the new system that I knew the management team would give us the information in a patient manner and so I know that that would help and that was key to us learning about the process.*

Critical Support Contributed to the SIS Adoption Process

Jada thought that the most important thing in supporting her adoption and use of the SIS was the support of her unit's management team to ensure there was appropriate training and documentation for the SIS Unit C functions.

> *I would have to say that one of the things that stand out most for me was having documentation, a person that saw the need for creating documentation that was going to be consistent with the practices of the SIS and how we should enter the*

> *information. You know Ivanna was my supervisor, so at that point in time, she has very close communication with her staff and vice versa, staff has very close communication with her. And so that made it, it was very…to me that sort of ease the transition or when we were learning more about the use of the SIS so it somewhat ease the transition to have that person in place and to also be able to reference back to the manuals and that the information received was indeed in writing and that was very important like I mentioned yesterday about of course the training being in a piece meal fashion and having a patient person to teach the SIS such as HL but it really became more concrete when we had the information that we can reference back to..*

In addition, Jada believed that the continued support received from the SIS office was helpful.

> *Also as I mentioned previously, you all, the SIS office staff had been very good, there had been so many occasions where I contacted you or your staff and had gotten feedback with regards to what I needed to do. I think that had been very very helpful and very useful for my job and for others in which I supervised. So the continued support is very important and even as we made these upgrades with regards to testings and things like that, and having the time to do that is a very important part, across the board, I would think. So I feel very supported.*

Leadership

Jada affirmed the importance of leadership support from Unit C management team to ensure a smooth transition for staff during the SIS implementation as well as subsequent upgrades by providing information, training, and documentation for the new SIS.

> *I would say overall the support is good. Again it really helps when we have an internal person and I can go to management and speak to them about different things like system upgrades and be able to first of all, we have the open door policy to share the information with me. Also, knowing it's important that the staff gets that information. And that has been quite consistent ever since we implemented the SIS so the support has been very good. Again it's been quite consistent across the board.*

Feelings Generated from the SIS Adoption Process

Jada believed that the implementation was good experience and she had a smooth transition changing from the legacy system to the new SIS.

> *I would say overall it's been really good. There is not one thing that stands out in my mind that has ever said that oh goodness that this system is not working for us. So I would have to say the transition from the legacy system to SIS was pretty good. You know sitting here thinking back upon the experience, it wasn't bad at all. Mhmm and that's an honest answer.*

Jada's Structural Description

Jada worked over 6 years at Big U before the SIS implementation. She was a Unit C staff member and was promoted to a manager two years ago after Ivanna left Big U. At the beginning of the implementation, Jada stated she was nervous about learning a new system. She was anxious because she heard from other staff that it was not easy to navigate the new SIS because of the various screens. However, as Jada learned more about the new system and as she compared the new SIS with the legacy system, she believed that the legacy system was antiquated. In addition, Jada thought that although the new SIS was different, the processing of the Unit C information was somewhat similar to the legacy system. Moreover, Jada saw moving to the new SIS as a step forward moving from manually entering data to downloading the information.

Jada was open-minded and eager to learn the new system. In addition, Jada believed her unit's management being on the implementation sub-team was beneficial because they kept the staff well informed. Moreover, she believed her unit had a good management team in place that were knowledgeable and were good in training staff. Furthermore, the management team made sure training was in stages so staff would not be overwhelmed in learning the new SIS for the different processes within Unit C.

Jada commented that the management team was patient and answered questions about the new SIS and it helped her learned the new SIS. In addition to receiving function specific training and plenty of hands-on practice time to learn the new SIS with detailed

manuals on step-by-step processes, the staff also went through basic training offered by the SIS office before hand. Jada is now in the management role and she provides training for new and existing staff. She is grateful that Ivanna was a good teacher and created detailed documentation for the unit.

Jada thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective. Since staff were well informed, they were not surprised. Thus, they were prepared for the transition and were able to work efficiently. After Ivanna left Big U, Jada was promoted to a manager and it was important to her to keep staff well informed. Since she had experience from the staff perspectives and appreciated she was kept well informed as a staff member; thus, now in her management role, she truly understood the importance of communication. She also appreciated the communication disseminated by the SIS office to keep the university informed about the SIS.

Jada stated that Unit C functions were one of the major functions and because of their processing cycle, it was the last function to go live with the SIS implementation. Hence, there was a transition period that Unit C staff had to enter the information in both the legacy system and the new SIS. The Unit C management team served as the Unit C staff's functional users support group and Jada believed that the support received from the Unit C management team helped staff transitioned well. Upon Jada's reflection, she felt the teamwork from the Unit C management team was key for her to adopt and use the SIS.

Jada thought that the most important thing in supporting her adoption and use of the SIS was the support of her unit's management team to ensure there was appropriate

training and documentation for the SIS Unit C functions. She affirmed the importance of leadership support from Unit C management team to ensure a smooth transition for staff during the SIS implementation as well as subsequent upgrades by providing information, training, and documentation for the new SIS.

In addition, Jada thought the SIS office served a key role in providing continual support and assistance that was valuable. Overall, Jada felt that the implementation was good experience and she had a smooth transition changing from the legacy system to the new SIS.

Lindsay's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Lindsay stated she was anxious about learning a new system. However, she was not fearful about management's demand as much as students' demand in knowing how to use the system.

> *I was anxious. I wasn't as fearful about management because like I said they didn't know the SIS. So I knew that I had to do it and I had to answer the students. They are more demanding than management. We didn't know how to use the SIS when it first implemented like we now used. We had to look it up in the folder and tell them!*

Although Lindsay felt that the technology change was necessary, because of the lack of management support, Lindsay did not know how to get on board.

> *I really didn't know because I am not technologically savvy and it was a technology changing era too from this old DOS system, not just our university but personally the turnaround time for everything is quicker so everything was expected to be immediate because of the technology. And so this whole shift was happening and I didn't know how to get on board and I just didn't know how SIS could support that.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Lindsay commented that the new SIS looked completely different than the legacy

system. Since she did not have adequate training, she was using the SIS by trial and error.

> *The legacy system and SIS looked completely different. So adjust to I guess it's a DOS system to like the code is a letter and in SIS is a number and different things, I am trying to recall, it was just by trial and error.*

Staff Attributes Contributed to the Success of the SIS Implementation

Among all the Unit C function offices at Big U, the one where Lindsay worked did not successfully implemented the SIS Unit C function when it went live because of the resistance of the then management. Staff tried their best to learn by trial and error and to make it work.

> *The management is feeling certain way and everybody has got to feel it. That's what was happening. I got some names from my supervisor and I remembered calling several people and I got a call back with the answers. It was a little bit rough and I think they didn't fully know. It was sort of piece meal, just try to make it work. Because there comes a point that management did expect you to know. So you don't have support and you are not aware of the support you have, you scrabbled. It just took us twice as long to do something that we were supposed to do in half the time. So we worked really hard.*

After the then management left Lindsay's Unit C office, it took a year for the unit to catch up with the rest of the Unit C offices at Big U. Thus, it was not until almost two years after the SIS went live that the Unit C office used the SIS Unit C functions efficiently.

> *I am probably going to say 2 years because I think it happened after that old management left. And then the new management or well there was a gap of no management but we had leadership people in our office that were staff. And two in particular. And so they would attend meetings. They started to get involved and they found out all of these information and bring back information. We would all started to laugh that we've been doing it this way for so long that's wrong and we sort of made it up or pushed it through. And so it was at that time that we became fully on board.*

Although Lindsay experienced a rough transition, she was open-minded about the changing of the SIS and was willing to adapt and get on board. Once she started to use it

on a daily basis, she felt comfortable using the new SIS.

> *So you just have to get on board. But I do feel more comfortable with it that just because I use it every day. So I never rejected it. I didn't wish that SIS didn't happen. It was just part of what's going on. You just do it and adapt.*

Communication

Lindsay's Unit C management did not attend any of the implementation meetings even though they were part of the implementation sub-teams. Thus, staff within Lindsay's unit did not receive much information.

> *At that time still there wasn't anybody attending meetings from our office so that any problems that came up, cause I'm sure it's a transition for the whole university, I think it was just piece meal information we received.*

In addition, the then management team isolated the unit staff by only hiring from outside Big U and put in place scare tactics to prohibit staff to communicate with other departments. Furthermore, staff within the unit could not communicate with each other.

> *After the old management team left, it all opened up. It was the time that we went to Iraq, and we were joking saying that we were free and we looked in the drawers where we know they had our resumes and we thought they were writing bad things about us and then they didn't so we found that there really weren't any and it was just all these fears placed on us just to communicate outside or with each other. But it wasn't always like that. It was just grown into this and I don't know why. So it wasn't just SIS, there were series of issues within the office. Also we were all hired from outside Big U so we really didn't' know the culture here, who to talk to, where to go, it such a large university, we don't know where to go. So we just don't know what outside our office the university was doing! You just think that it's big and nobody cared because of that.*

Functional Users Support Group

Each Unit C office's management team was supposed to serve as their own Unit C staff's functional users support group. However, Lindsay and staff within her unit did not receive any support. In addition, the management team did not utilize support offered by the university.

> *Initially I didn't know that there was support. It wasn't until later that I learned that there was all these great support out there. And so during that period of not knowing, I thought that this was just the way it is and you just go through with it and there was nothing I could do. Just keep working really hard. Because like I said the students were really demanding and we are here for the students so we have to make it work. I care about the students because I am a student and I know that's your whole life and I know how important that is so if I could just do that, help the student.*

After the then management left, staff from Lindsay's unit started to attend meetings and found out support was available from the university in order to adopt and use the SIS.

> *There were all these people out there communicating and meeting and participating except for us. It was just amazing and at that point we were laughing because it was just so amazing and we were on board by then so we were using SIS.*

Training

Lindsay's Unit C management team was part of the Unit C implementation sub-team. They were responsible for learning the system functions for their unit, worked with the implementation sub-team documenting new business processes for the new system, and making sure their staff received appropriate training. However, the only training staff within Lindsay's Unit C office only received the basic training from the SIS office. They did not receive function specific training for any of their processes.

> *Basic navigation training is required for you to get access to the system so that's why they said we had to go. Even though the basic training classes were informative but once you get online it's another thing. The one person in our office, he did help set up the screens that we would need so we would know the names of the screens that we use but not necessary how to use it. So we were not doing it entirely correctly. We were just pushing it through, it saved and that's all that we would do.*

After the then management left, Lindsay's Unit C hired new management and they now have in-house training as well as detailed documentation for their processes.

> *SIS is not intuitive or friendly and so you really have to be very specific. So a lot of us do refer to a lot of things. So it's also part of your in-house training that we*

initiated that we'll be going over each week specific topics, so it's an on-going thing.

Team

Upon Lindsay's reflection, she felt the teamwork among staff within her Unit C office made it possible for her to make through the terrible transition.

So that was a really busy season for our office for the fall and we had a lot of files and so we would work together. This other person who was the supervisor, he is the one who really stands out because we worked really closely. Just manually doing everything. If people would call, we would look in their file. We weren't using the SIS sufficiently, it wasn't entered sufficiently. There was a huge gap and we didn't have time to do that and to keep up with the students and the work load. I remembered the files were lying down the hallway.

Lindsay affirmed the importance of internal support from fellow staff to handle a bad transition when management was not supportive.

I guess, the coworkers, we liked each other and it helped and the management, when I first started, everything was fine. It was nice, we had fun and we had parties and then as they changed, other things changed within the office. It just became much more tense and then came SIS. So why not! Just one more thing. But I always got along with my coworkers and I think that helped. We were all in the same situation. We couldn't talk to each other but we could send eyes to each other. We were very hush or if they were out to a meeting, we get 5 minutes in and talk a little bit.

Critical Support Contributed to the SIS Adoption Process

Lindsay thought that the most important thing in supporting her adoption and use of the SIS should be the support from her unit's management team to ensure there was appropriate training and documentation for the SIS Unit C functions.

I found out years later that we had, that the University gave us money for somebody to support us during the transition. But that never happened for our college! But I only learned this 2 or 3 years later when the management completely changed and then people were attending meetings. I was not one of them because I was still not in leadership position but people would bring back information and so that's how I realized, it was a terrible transition because there was no support and we did expect support to go through this part. So it was a terrible transition.

In addition, Lindsay felt that on-going training need to be in place because of subsequent changes brought on by SIS upgrades as well as policy changes.

> *I guess the on-going training even on screens that I already know because, you received training at different times and things change. Upgrades change and you don't know now how it affects things differently and polices changes. The upgrades are not the major part of it; it's just an outcome of it. And not a lot of big formal training. I don't get a lot out of formal sessions, like in-house, it's more specific. And there you can ask questions of things, things you should know but just to clarify everything.*

Leadership

Lindsay affirmed the importance of management support to ensure a smooth transition for staff during the SIS implementation.

> *I think the biggest thing was that there was a person assigned to us and it just amazing that we didn't take advantage of that and that's neglectful! And you have to wonder if they didn't know cause they weren't attending these meetings.*

Feelings Generated from the SIS Adoption Process

Even though the transition of the SIS implementation was not a good experience initial, Lindsay felt she had grown professional from that experience. In addition, since she learned the SIS and used it on a regular basis, she felt good that she was able to help others in using the SIS.

> *When the departments call, they don't know SIS as well because most likely they don't have the opportunity to use it often and required to and I feel like that I do know so I just do it so they don't have to call somebody to find out how they can look it up. So I think that's good that I know how to use it and I use it well.*

Lindsay's Structural Description

Lindsay worked for her Unit C office at Big U for several years before the SIS implementation. At the beginning of the implementation, Lindsay stated she was anxious about learning a new system. However, she was not fearful about management's demand as much as students' demand in knowing how to use the system because the management

team resisted using the new SIS and was fine with staff looking up information from paper folder instead of using the new SIS. Although Lindsay felt that the technology change was necessary, because of the lack of management support, Lindsay did not know how to get on board.

Lindsay commented that the new SIS looked completely different than the legacy system. In addition, Lindsay felt that the new SIS was not an institutive and friendly system to use. Among all the Unit C function offices at Big U, the one where Lindsay worked did not successfully implemented the SIS Unit C function when it went live because of the resistance of the then management. Since she nor her fellow staff within the unit had adequate training, they tried their best to learn and use the new SIS by trial and error in order to make it work.

After the then management left Lindsay's Unit C office, it took a year for the unit to catch up with the rest of the Unit C offices at Big U. Thus, it was not until almost two years after the SIS went live that the Unit C office used the SIS Unit C functions efficiently. Although Lindsay experienced a rough transition, she was open-minded about the changing of the SIS and was willing to adapt and get on board. Once she started to use it on a daily basis, she felt comfortable using the new SIS.

According to Lindsay, her then management team did not attend any of the implementation meetings even though they were part of the implementation sub-teams. Thus, staff within Lindsay's unit did not receive much information. In addition, the then management team isolated the unit staff by only hiring from outside Big U and put in place scare tactics to prohibit staff in communicating with other departments. Furthermore, staff within the unit could not communicate with each other. However, staff

found creative ways to communicate and support each other. Upon Lindsay's reflection, she felt the teamwork among staff within her Unit C office made it possible for her to make through the terrible transition.

Each Unit C office's management team was supposed to serve as their own Unit C staff's functional users support group. They were also responsible for learning the system functions for their unit, working with the implementation sub-team documenting new business processes for the new system, and making sure their staff received appropriate training. However, Lindsay and staff within her unit did not receive any support or function specific training. The only training staff within Lindsay's Unit C office received was the basic training from the SIS office because it was required to gain access to the system. In addition, the management team did not utilize support offered by the university such as backfill positions.

After the then management left, staff from Lindsay's unit started to attend meetings and found out support was available from the university in order to adopt and use the SIS. They started to learn the system and created in-house training as well as documentation for their processes in order to work efficiently with the new SIS.

Lindsay thought that the most important thing in supporting her adoption and use of the SIS should be the support from her unit's management team to ensure there was appropriate training and documentation for the SIS Unit C functions. In addition, Lindsay felt that on-going training need to be in place because of subsequent changes brought on by SIS upgrades as well as policy changes.

Even though the transition of the SIS implementation was not a good experience initially for Lindsay, she felt she had grown professionally from her experience. In

addition, since she learned the SIS and used it on a regular basis, she felt good that she was able to help others in using the SIS.

Clint's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Clint stated there was fearfulness and frustration because of mandate to change to a new system that was believed to be regarded as an inferior system to the current legacy system.

> *I mean when I first started yeah they were fearful and you know just ask why. Because... in their eyes Legacy system is fine (laugh) because it met their basic needs and so why would we go through all the work and time to change to something that we have concerns about and we have to relearn. So there was fearfulness and a lot of questioning. But I think as people learned more about it and get trained on it then the transition got a little easier.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The negative feelings generated toward the mandated change were because of the need to learn a new system that was believed to be regarded as an inferior system to the current legacy system because of its complexity.

> *Because we just come to learn that the SIS Unit B function and SIS are just huge products with a lot of different ways to accomplish things and a lot of complexity.*

Staff Attributes Contributed to the Success of the SIS Implementation

Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, the Unit B function implementation sub-team formed a FUSG in order to ensure adoption and used the new system.

> *What started out as Unit B functions during the SIS implementation, we formed the support group for SIS Unit B function users. We still meet once a month and couldn't do without. And none of us are solely devoted to you know a SIS Unit B function superuser role. Each of us does this as part of our regular day job. And*

> *so it's not like that you can spend all day trying to become an expert. You fit it in when you can and so it continued to be a challenge because of that. So that's why supporting each other has worked all this time.*

Communication

Clint thought that the face-to-face communication at the implementation stage was effective and kept the university well informed. After the implementation the communication provided by the FUSG1 meeting as well as the SIS office was crucial.

> *I meant implementation team. and then each of us has our own groups that we headed. So not only for my group, we also communicated well about you know the things I'm responsible for legacy system Unit B function and Unit H function. So I think the implementation sub-teams and then the larger group implementing communicated well. And I think we did...I felt like we adequately kept the university informed and we had a great trainer that put together a great training program that was supplemented by other programs put on by other departments. So I think yea communication came together. Because the SIS office facilitates all of the upgrades, all of the on-going communications and through FUSG1, and just updates regularly to SIS users.*

Functional Users Support Group

Because the SIS implementation created an overwhelming amount of information that had to be learned for the Unit B functions, Clint felt the FUSG3 was beneficial in serving as communication, learning, and support tools.

> *It's definitely a learning tool, like we just did a 3-hour superuser training for ourselves a couple of weeks ago. And when we meet once a month we just go over students issues that have evolved from some kind of SIS Unit B function problems and that's a learning experience. But it is emotion support too. It gets frustrated. And so like you can sit in a room and talk with somebody else who understand the frustration.*

Training

The Unit B function implementation sub-team was responsible for learning the system functions for their unit, documenting new business processes for the new system, and performing functional training for their unit.

> *My experience about the change...at the time I was working at the Unit B function office and I felt like at least the staff I dealt with were able to transition pretty well based on the training that we had with the SIS as well as the legacy system Unit B function which was key for us as Unit B staff and we worked...really all the Unit B staff in the office worked together as well and we developed kind of our own training program for Unit B function offices specifically so we went a little bit further than the basic training to talk about some of the forms that were specific to Unit B staff and then we put together the legacy system Unit B function training. So I think that component of it made it easier for my office and I think the other Unit B offices. So I think it was a, it was, you know, a fairly smooth transition.*

Team

Upon Clint's reflection, teamwork stood out most for him during the SIS implementation.

> *We were able to change the processes by involving so many people and coming up with something that would work. Rather than, you know, one person, saying to all advisors that suddenly that you have to do it this way. That created more buy-in by all of us putting our heads together and coming up with new processes. We were definitely stronger, understand each other. built rapport, personal rapport, which helps when you finally understand each other and what each other try to accomplish.*

Critical Support Contributed to the SIS Adoption Process

Clint thought that the most important thing in supporting his adoption and use of the SIS was the support of functional experts in providing the necessary knowledge in learning the new SIS. Clint also indicated the importance of technical support to resolve issues after the SIS went live to ensure the SIS is working properly.

> *During implementation what I liked most in terms of support was probably having the vendor consultant here and what I liked most since then the SIS Unit B function programmer as part of the SIS Unit B function team.*

Leadership

Clint affirmed the importance of leadership support during the SIS implementation and that politics could get in the way of a smooth implementation.

> *I would have to say the support from upper administration. I felt like we couldn't have implemented without backfill, without being house together, and meeting regularly and having retreats because it helped us worked more cohesively. And I think all of that came from the support of the upper administration by providing funds. What I liked least back to the implementation was the politics that were sometimes involved with some of the decisions that were made, how things were done.*

Feelings Generated from the SIS Adoption Process

Clint declared that although there were lots of work and lots to learn, the implementation experience was a positive one. The implementation was a growing and learning experience that was worth the work.

> *Positive for me. A lot of work, but positive. It was a roller coaster ride but it ended up being fun. I'm really glad that I was a part of it. I was thinking I was scared and very unsure going into this implementation. And I remembered being a year into it and still feeling like I really did not understand it and getting really scared the thought that I don't understand and everybody around me does and I'm way behind. But by the end, going back toward may be what Demi said, I feel a lot more confident at the end that actually I came out the other end and finished it and learned something. And so the next time you know I approach some kind of change or project, I went into it much more confident than initially. It helped me learned some technical skills that I haven't have before. I mean really I was really never technically oriented before this project so it helped me understand a lot more about database and all those kinds of technical things. I learned a lot*

Clint's Structural Description

Clint was a long time employee at Big U before the SIS implementation and was a respected leader of Unit B function offices across the campus at Big U. During the initial SIS implementation, Clint was an implementation team leader for the Unit B functions overseeing the modification of the legacy Unit B functions to make it worked with the new SIS. Later on he served as the SIS Unit B implementation sub-team leader. Because of his commitment to the university and the accountability as the SIS Unit B implementation sub-team leader, despite the fear of the new and complicated system, Clint led the SIS Unit B function implementation sub-team forming the FUSG3 in order

to ensure adoption and use of the new system. He took ownership in learning the system functions for his unit and building consensus among all the Unit B function implementation sub-team members in order to perform functional training for Unit B function offices.

At the beginning of the SIS Unit B implementation, Clint was fearful and frustrated because of the mandate to change to a new system that was believed to be regarded as an inferior system to the current legacy system. Negative feelings were generated toward the new SIS Unit B function because it was complex and difficult to learn. Due to the negative environment, Clint thought that the face-to-face communication at the implementation stage was effective and the implementation team kept the university staff well informed. Clint affirmed that after the initial SIS implementation, communication provided by the FUSG1 meeting as well as the SIS office was crucial.

Because the SIS Unit B function implementation created an overwhelming amount of information that had to be learned, Clint believed that without the FUSG3 to serve as a communication, learning, and support tool, the adoption and use of the SIS Unit B functions may not be successful. Clint also expressed because of the complexity of the SIS Unit B functions, it was imperative that technical staff were part of the FUSG3.

The Unit B function implementation sub-team was responsible for learning the system functions for their unit, documenting new business processes for the new system, and performing functional training for their unit. Upon Clint's reflection, the teamwork from the main implementation team as well as the implementation sub-teams stood out

most for him because of the collaboration and friendship formed during the implementation. In addition, Clint affirmed the importance of leadership support during the SIS implementation and that politics could get in the way of a smooth implementation.

Clint thought that the most important thing in supporting his adoption and use of the SIS was the support of functional experts to provide the necessary knowledge in learning the new SIS. Clint also indicated the importance of technical support in resolving issues after the SIS went live to ensure the SIS Unit B function worked properly.

Clint declared that although there were lots of work and lots to learn, the implementation experience was a positive one due to team collaboration. The implementation was a growing and learning experience that was worth the work.

Angelina's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Angelina stated she was upset, shocked and in disbelief.

> *When I first learned that we were going to go to SIS instead of purchasing another system or doing a new homegrown system, I think, upsetting was the best word to describe it. When we learned that yes indeed we were going to SIS I think that we were like shocked and disbelieved that we were going to a system that we didn't feel as good as it could be.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The negative feelings generated toward the mandated change were because of the need to learn a new system that was believed to be an inferior system to the current legacy system.

> *We felt like or we believed that the legacy system was such a great student information system that what we had seen of the SIS we were not impressed with the quality of information and how it was presented, stored and I was very concerned about being able to make the transition period.*

Staff Attributes Contributed to the Success of the SIS Implementation

Angelina was a long time employee at Big U before the implementation. Angelina along with the Unit C function directors were members of the implementation sub-team for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Angelina adopted and used the new system with best practices and unit functions documentation in place.

> *This is what you have to do to get your work done on a daily basis. If you want to make it fail then you are going to fail in your job and none of us wanted to do that. It's the level of commitment that may not be there always across the university and it goes back to those of us who had been there for a while. We grew up with Big U and we didn't want it to fail. We wanted it to be successful because we knew that's the only way we were going to be successful. And I think we were committed, whether we liked it or not, to go forward.*

After the initial SIS implementation, Angelina was involved in the SIS Unit B function implementation.

Communication

Angelina thought that written communication at the implementation stage was not as effective as verbal communication.

> *I remembered very little about specific written communication, you know, I remembered going out to the website but it was all so new, you know, it was just easier to call someone and, or find someone that could help you but as far as once the implementation took place and we needed the email, you know, like SIS office, that was easy to use. And yes you got a very quick response and even if they didn't know how to solve the problem at that point or needed to look into it, you knew exactly that, I mean you knew that they were doing it and that you would hear it as soon as it had been solved.*

Functional Users Support Group

Because the SIS implementation created an overwhelming amount of information that had to be learned, Angelina believed the FUSG2 was beneficial in serving as communication and support tools.

> *I believe we were just an incredible unit as far as being able to make the best of a situation and work together. And I think those functional users groups were probably the best thing that we did so that we stayed in contact frequently and with coming together to solve issues, asked questions, you know, why is this happening you know, it was such a huge implementation and so much information was going to fall through the crack, that was what was expected and I think one person or 2 people knowing information that 2 or 3 people didn't, the only way you could find out was to have that functional users group and I don't think we could have survived without that.*

Training

The Unit C function implementation sub-team was responsible for learning the system functions for their unit function, documenting new business processes for the new system, and performing functional training for their unit function.

> *I think the biggest thing that we did was set up training for ourselves. We did training for the Unit C function staff and we targeted that training to their actual day to day work load, to their day to day work responsibilities, we all, all the Unit C function directors took different part of the modules that they needed to be familiar and you know became as expert on it as we could and gave them documentation. We did face to face training, groups, and it just gave them an opportunity to be there with people from other colleges that did the same thing and so you know one person's question would lead to other questions. I think it just helped to have everybody there who does similar jobs to be in the same room, hearing the same thing. that way we knew basically everybody was doing it the same way.*

Team

Upon Angelina's reflection, teamwork stood out most for her during the SIS implementation.

> *The teams that we built, that stands out for me. The trust that we built with each other, and our ability to stand as a united front and know what was best for the*

students and the faculty.

Critical Support Contributed to the SIS Adoption Process

Angelina thought that the most important thing in supporting her adoption and use of the SIS was the easy access to problem solving and troubleshooting as they occurred.

> *Being able to pick up the phone and call the SIS office, a team leader, and just having easy access to the people you know who have the answer to your questions. And not being put on a problem list of a hundred problems and say well we'll get back to you when we can. That was very user friendly, very customer oriented support.*

Leadership

Angelina affirmed what she liked least about the SIS implementation was the lack of leadership support.

> *I would have to say the thing I like least was the administration lack of support. That they were more pushing on the timeline. They seemed to be more concerned with the timeline than having a good smooth implementation.*

Feelings Generated from the SIS Adoption Process

Angelina declared that although there were lots of work and lots to learn, the implementation experience was a positive one due to the collaboration of team members and the incredible team work.

> *Just that even though it was very stressful, I think we had a lot of fun together. We were supportive of each other and I just think that made all the difference in the world as to how we did it. It was fun going to the meeting and seeing everybody. You know you have a lot of work to do. It was fun getting to know people you have not met before and worked with. Just growing through the whole experience, I think we all became closer and learn how to work better together.*

Overall, Angelina reflected the SIS implementation generated a wide range of emotions from desperation to exhilaration.

> *You know desperation in that you know you had to get things done in your office in a timely way for your office to function, for you to be able to get information to the faculty and feeling very desperate that I can't tell the faculty you can't have*

> *this. And then you know all the range of emotions between desperation and exhilaration in that you accomplished something, you did it, you got information in and get information out. You put it in and you did it successfully. I would just say, and I'm sure everybody did this, you just went through the whole range, you know, almost depressed about some things and then once it got to the point of fruition when you were getting information out and you saw that it was working, just being very excited and up about, you know, we got it done, it was accomplished. So I think it just very wide range of emotion, not only with the implementation, but working with your functional users group and your team.*

Angelina's Structural Description

Angelina has retired but served as a part-time consultant for occasional special projects at Big U. Because Angelina was a long time employee at Big U before the SIS implementation, Big U benefited from her commitment and accountability to the university as a member of several implementation sub-teams including the Unit B functions implementation after the initial SIS implementation. Despite her negative feelings toward the SIS, she made sure the SIS implementation successful by taking ownership in learning the system functions for her unit function, documenting new business processes for the new system, and performing functional training for her unit functions.

As one of the Unit C function office directors, Angelina stated that they were a tight knit group that worked well together. Angelina believed that the support received from the Unit C FUSG was crucial because of the team work and communication this group provided. Information flowed from the implementation team leaders to their team members. Team members in turn communicated to their unit functions. She also felt that written communication about the implementation from the informational website was not effective during the beginning of the implementation because it was better to gain information from face-to-face meetings. After the SIS went live, communication from the

FUSG1 meetings and the updates emails about upgrades from the SIS office were very effective.

Angelina appreciated the accessible support and timely responses from the SIS office as well as implementation team leaders when problems occurred during the implementation which alleviated some of the frustrations. Although there were an overwhelming amount of work and new information to learn, Angelina felt the implementation experience was a positive one due to the collaboration of team members and the incredible team work. The breakdown of the silos enabled staff from across the university to gain understanding and respect of other units; thus, staff were better able to work together. The implementation was a growing and learning experience that was worth the work.

Overall, Angelina reflected the SIS implementation generated a wide range of emotions from desperation to exhilaration due to the overwhelming amount of work involved in building the system, documenting new processes for the SIS, and performing function specific training for her unit while dealing with her own learning curve of the new SIS. However, she felt a sense of outstanding accomplishment when the SIS went live successfully and all the hard work was worthwhile.

Xena's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Xena thought it was good that the university had a roll out to let staff know the new SIS mandate was coming.

> *They had a roll out. The Registrar at that time was in charge of the implementation and she had a university wide meeting and gave everybody t-shirts (laugh) and introduced her team leaders. I think the good thing she said was this is coming, don't be afraid of it but even if you are, it's coming. You don't*

have a choice.

The negative feelings generated toward the mandated change were because of the need to learn a new system that was believed to be an inferior system to the current legacy system.

> *I think initial we wasted some time because of we thought we had more flexibility in the system that we could choose.*

In addition, the mandated change required the units to change their processes.

> *Change their processes! How many millions of times did you hear that?*

System Attributes Contributed to the Acceptance or Resistance of SIS

Unit B staff were terrified of the change because they were worried that during the conversion from one system to another student data would disappear.

> *We were terrified because the whole system was going to change to something else so I know I backed everything up with paper. I had paper going out the wahzoo and so did every other Unit B office because they were afraid that some kind of glitch was going to happen especially in the academic history that something was going to go away. It's like the year 2000, everything is going to crash (laugh) and if you don't have paper copy, you'll never see it again.*

Compared to the legacy system Unit B functions, the new SIS Unit B functions were complicated and not user friendly. In addition, processes took longer to complete.

> *When my college began, I didn't use the legacy system Unit B function and Brad from the other college came over because I didn't know what I was doing and trained me in an afternoon how to build frames. But I got it. I couldn't get the SIS Unit B functions in an afternoon to save my life! So there was a level of sophistication or a level of complexity with the SIS Unit B function that just wasn't there with the legacy system.*

> *For people that have been here as long as I have, it's frustrating because the legacy system that we had, the Unit B functions were very easy to change. It was very user friendly so this intricate system is more frustrating. And it takes longer!*

Moreover, the SIS Unit B functions were impacted because of constant system upgrades; thus, high frustration level was caused by the need for continual testing to

ensure the SIS Unit B functions were working properly.

> *It's just frustrating, you know for all the people who use it that you know every 6 months you have to do testing and things are going to go wrong and things don't work that they work before and all these programmers are going to try to fix things so it's real difference. You know the legacy system Unit B didn't change unless we have new information and it takes 5 minutes to change it.*

Staff Attributes Contributed to the Success of the SIS Implementation

Xena was a long time employee at Big U before the implementation. As one of the unit directors, Xena was members of several implementation sub-teams for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Xena adopted and used the new system.

> *We were told to devote a certain number of hours per week to implementation and our deans knew that that we were doing this and we did it well, it would be a good reflection on our dean and on the college. Now we don't have that buy-in from our dean's office on this.*

Communication

Based on all Xena's narrative, it seemed like team members heavily relied on verbal communication that took place mostly in face-to-face meetings.

> *I know that there were lots of meetings where we could have discussed a single point for hours at a time (laugh from other group members) and the team leader said Enough…. you know this isn't going to happen this way we don't know how this is going to happen and we have to move on. So I think those team leaders had meetings with the programmers, with the person from the vendor, with you, and with other people so that they were kept very much abreast of where the university as a whole was going with the project and they were really good at moving us along because I would still be in there discussing the minutia if Clint didn't say Xena that's enough (laugh).*

Functional Users Support Group

Xena felt the FUSG3 was beneficial in serving as a support tool.

> *But the group only meets once a month so it's more troubleshooting but it's not*

for you know everyday help.

Training

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. However, because a vendor consultant was hired to build the system, team members did not thoroughly learn the system. Xena felt that the training received from the vendor was not adequate. Hence, team members did not fully understand how the Unit B functions worked.

> *What happened was the vendor trainer gave each college their frames and when she left and the other person came, he gave them their frames. So they didn't write anything out but they gave us our frames that show how they did it.*
>
> *She sat down with one person at each college and she built a frame for every single program based on what we told her, what we used in the legacy system Unit B functions. But the problem was that there was something that she did right and there were other things that she didn't do quite right. It just because she was doing hundreds of these and if you said choose 2 out of 4, something like that and because she built them and we were still trying to understand the process when things had to be changed, everybody just kind of did it to make it work.*
>
> *Everybody did something to make it work so with everybody there wasn't consistency and nobody had time to write a manual (the group agreed). Winona took it upon herself to write a manual and I shared it with some people because it was the first documentation of how Big U will do these things it gave you more of a frame of reference.*

Team

Upon Xena's reflection, the cooperation and the willingness to help each other among various offices stood out most for her during the SIS implementation.

> *I think for me what stood out most was the cooperation that we had from various offices at the university. The programmers gave us their time even when they didn't have it. The other offices they were great about helping individuals work out various problems. There was lots of cooperation, nobody ever told me you*

> *know, Xena I don't have time or I don't remember how to do it. Even if they don't know how to do it, they would say let me ask somebody and I'll call you back so that was nice and you didn't feel completely isolated.*

Critical Support Contributed to the SIS Adoption Process

Xena thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was dedicated resources for testing upgrades as well as problem solving and troubleshooting as they occurred.

> *Every group realized that there was a need for a single person to go to that would work with the programmers and that would help test for these upgrades that comes out every 6 months, that would be available to the various colleges.*

In addition, Xena stressed the importance of having technical support to ensure the SIS Unit B functions worked properly.

> *Fortunately, the university has given the resources of one of the programmers to sit in on the Unit B FUSG3 meetings and to help with problems. And that she is so good and dedicated because it could be someone, I think she does more than her time technically allow working with that group.*

Leadership

Xena affirmed that upper administration leadership made very good choices in choosing implementation team leaders to lead the SIS implementation.

> *But at least my experience was that the university made very good choices with the team leaders. (group nodding heads in agreement) Big U chose people to be team leaders that had a history, that were well respected at a number of levels. They were very focused on the goal and the time line and moved things along when we wanted to get bogged down in minutia.*

However, because of the new SIS Unit B function implementation, Xena felt that the university upper administration was forcing Unit B staff to assume a role that may not have been part of their initial job description.

> *Well I think it's forcing people to assume a role that may not have been part of their initial job description. I mean a staff in Unit B isn't normally a techie but I think you kind of have to be a techie to be able to use the system effectively.*

> *Because if I am just an Unit B staff, I can just push a button and I know it would come out right. I have to push a button and if it comes out wrong, I have to fix it. I think it certain is a different role in 20 years ago when you did just push the button and it came out and it was right.*

Feelings Generated from the SIS Adoption Process

Xena declared that the implementation experience was a positive one due to the collaboration of team members and the incredible team work. The commitment from the colleges' upper administration allowed team members to devote time to ensure a smooth implementation.

> *As far as the initial implementation, I think I like that our dean's office made the commitment to give us the time to actually do a good implementation because without their buy-in it would have been so much more difficult but I think that was just critically important at least in my college they were very supportive of the extra time that it was going to take for the implementation.*

However, after the implementation, it was frustrated that the team fell apart because they no longer had the time to devote to serving as functional experts at the university level.

> *And we didn't have time because once the switch was turned on, it was turned on and we have so many things that we were dealing with, it was I think things were changing too quickly that by the time the documentation was written, the teams didn't need it anymore as readily because everybody was dealing with their individual issues then. So the team kind of fell apart after the initial implementation.*

Xena's Structural Description

Xena was a long time employee at Big U before the SIS implementation and has now retired. Big U benefited from her commitment and accountability to the university in making the SIS implementation successful despite of her negative feelings toward the SIS because of the need to learn a new system that was believed to be an inferior system to the current legacy system. Compared to the legacy system Unit B functions, the new SIS

Unit B functions were complicated and not user friendly. In addition, processes took longer to complete. Moreover, the mandated change required the units to change their processes.

At the beginning of the implementation, Xena thought it was good that the university had a roll out to let staff know the new SIS mandate was coming. However, Unit B staff were terrified of the change because they were worried that during the conversion from one system to another student data would disappear. Moreover, the SIS Unit B functions were impacted because of constant system upgrades; thus, high frustration level was caused by the need for continual testing to ensure the SIS Unit B functions were working properly.

As one of the unit directors, Xena was a member of several implementation sub-teams for their unit functions. She took ownership in learning the system functions for her area, documenting new business processes for the new system, and performing functional training for her area. Xena confirmed that during the initial SIS implementation, there were buy-in from upper administration within the colleges for staff to devote their time and energy to serve as functional experts to ensure a successful implementation. However, after the SIS implementation, there was no longer buy-in from upper administration within the colleges for their staff to continue to serve as functional experts at the university level.

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. However, because a vendor consultant was hired to build the system, team

members did not thoroughly learn the system. Xena felt that the training received from the vendor was not adequate. Hence, team members did not fully understand how the Unit B functions worked.

Xena felt the FUSG3 was beneficial in serving as a support tool. However, since the group only meets once a month after the SIS Unit B function implementation, the members used the meetings as troubleshooting sessions. Upon Xena's reflection, the cooperation and the willingness to help each other among various offices stood out most for her during the SIS implementation. In addition, Xena thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was dedicated resources for testing upgrades as well as problem solving and troubleshooting as they occurred. Because of the complexity of the SIS Unit B functions, Xena stressed the importance of having technical support to ensure the SIS Unit B functions worked properly.

Xena affirmed that upper administration leadership made very good choices in choosing implementation team leaders to lead the SIS implementation. However, because of the SIS Unit B function implementation, Xena felt that the university upper administration was forcing Unit B staff to assume a role that may not have been part of their initial job description. Xena declared that the implementation experience was a positive one due to the collaboration of team members and the incredible team work. The commitment from the colleges' upper administration allowed team members to devote time to ensure a smooth implementation. However, after the implementation, it was frustrating that the team fell apart because they no longer had the time to devote to serving as functional experts at the university level.

Winona's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Winona thought Big U higher administers were smart to get functional users involved and get buy-in for the mandated change. Although it was intimidating to have the responsibilities of serving as functional experts and trainer, Winona rose to the challenge.

> *I thought it was very smart that Big U has functional users on the teams and they said to us in the beginning that you are going to have the opportunity to learn this from the ground up and it is going to be your responsibility to share this in a positive way with everybody else at your college and the university and so even though when I suddenly learned OK you are going to be on the implementation team and you are going to be a trainer, I was very scared and sort of intimidated but at the same time I always thought it was a positive thing that was going to happen. So I thought it was smart of them the way they did it.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Winona commented that it was an intimidating experience when it came to learning the SIS because it was like learning a new language.

> *The language, it was like the most intimidating to me, it was like learning a new language*.

In addition, compared to the legacy system Unit B functions, processes took longer to complete in the SIS Unit B functions.

> *When you perform the legacy system Unit B functions, you can do two or three pages of a hundred record in a day. And when you do the SIS Unit B functions, it takes 3 times as long and there are many problems that continued because of change. So it's different.*
> *And that's when you feel the frustration cause when you are sitting there trying to finish all the work and you could have done them in a much shorter time.*

Moreover, because of the flexibility provided by the SIS Unit B functions and the different Unit B information among the different Unit B offices, the Unit B functions were not built consistently across the university.

> *One thing that's different about Unit B functions is that it changes all the time. Like you said the group tries to solve the problem when it arise. Also each college, because of the different kind of programs, may have their Unit B functions built differently so it's a little different than Unit A functions.*

Despite of some of the shortcomings of the SIS Unit B functions, Winona thought it was a great tool to provide students the information they needed and to better communicate with them.

> *That was one reason I said I really like it because it is a great tool and it was positive for us to implement this because it got students to looking more at their requirements and it makes it easier for them to communicate with us and things like that.*

Staff Attributes Contributed to the Success of the SIS Implementation

Winona was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Winona adopted and used the new system.

> *And they took advantage of like teams, really got buy-in from every level because the people that they picked on the teams were the real users and it worked well.*

Communication

Winona thought the university communicated well with the team leaders; in turn, the team leaders communicated with team members and kept them well informed about the implementation.

> *They did a good job communicating with the people that were going to be on the team.*

After the SIS went live, according to the FUSG3 group, they received adequate information about the SIS.

> *Communication is adequate. We know when upgrade is coming, we know when we should be testing. We know when there's a problem and when the system is*

going down for an emergency. We are not uninformed.

Functional Users Support Group

According to the FUSG3, they relied on each other as resources for the SIS Unit B functions.

> *For the functional users support group, the group that we have, we use each other as resources for everything in the SIS Unit B functions.*

Training

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. Winona thought that the initial SIS implementation training was good.

> *I thought that the vendor training, like the personal training we got from the vendor was good. I thought the weakest part of the training had to do with the fact that they did not have good, I guess you would call it on paper instructions; we ended up having to develop our own training materials because of the weakness of theirs. But on the other hand, because we did develop our own training materials, we had a very thorough knowledge. I thought the train-the-trainer sessions were very helpful that I might not have been able to be a trainer without it.*

However, for the SIS Unit B functions implementation, even thought the initial SIS Unit B function training was adequate, the vendor consultant did not provide good documentation that reflected the processes, polices, and procedures practiced at Big U.

> *Terrible documentation, I mean on paper, almost none that was available from the company. Anything we have that's good, we wrote ourselves.*

Winona felt that the sub-team members failed the university by not having training in place for new Unit B staff.

> *One thing I was going to say on this part is that a place where we've fallen down on supporting the university, is continue training new people. Like those of us that were here when it happened, we got trained. And recently the Unit B group*

> *organized a training as an emergency measure but it almost ought to be that every semester there was a training session, for example, for new Unit B staff and users to tell them the things that they need to know and we don't have that.*

Team

Upon Winona's reflection, the cooperation and the willingness to help each other among various offices stood out most for her during the SIS implementation.

> *And I thought also in general it's kind of positive for me because of serving on the team that I got to know more of the resources and everybody else in the university. And like I would underline what Xena said that everybody was so helpful anytime there was a problem and continues to be. I think it kind of brought our university to a level where we communicate with each other more, probably we had to but also it made us communicate better with students.*

Critical Support Contributed to the SIS Adoption Process

Winona thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was dedicated resources for testing upgrades as well as problem solving and troubleshooting as they occurred.

> *It was supposed to last for a period of time and you knew that you were supposed to give over your time for it. And as a matter of fact, you have backup help for your regular job. Now it's like something that's added on, there's no support for on-going. So I don't think we have good long term plan. I think we had great implementation and bad long term planning.*

In addition, Winona agreed with FUSG3 about the importance of having technical support to ensure the SIS Unit B functions worked properly.

> *If you all don't have the programmer, you'll be sunk.*

Leadership

Winona affirmed that upper administration leadership made very good choices in choosing implementation team leaders to lead the SIS implementation.

> *I can completely say the same thing that they made a really good choice of team leaders.*

Feelings Generated from the SIS Adoption Process

Winona declared that the implementation experience was a positive one. She saw the benefits of technology change and how it could better serve students.

> *I really like keeping up with technology but I was really intimidated at the beginning of being on the implementation team but it made me more confident that I am able to keep up with technology. (group nodding heads). And what Xena was saying, it had changed the role of Unit B staff of the way they communicated with students and it convinced me that we had to use other technology for Unit B functions and so it changed my attitude.*

Winona's Structural Description

Winona was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Winona adopted and used the new system. Winona felt the university was on the right track to get involvement from functional users to build the new SIS for they were knowledgeable of the processes.

At the beginning of the implementation, Winona thought Big U upper administration were smart to get functional users involved and get buy-in for the mandated change. Although it was intimidating to have the responsibilities of serving as functional experts and trainer, Winona rose to the challenge. The expectations from the university upper administration were for the selected implementation team leaders and sub-team members to learn and build the system, to serve as a role model for the adoption and use of the system and impart a positive attitude for the mandated change.

Winona commented that it was an intimidating experience when it came to learning the SIS because it was like learning a new language. In addition, compared to the legacy system Unit B functions, processes took longer to complete in the SIS Unit B

functions. Because of the amount of work that had to be done, Winona was frustrated knowing that it would be quicker to perform the same amount of work in a much shorter time if she were to use the legacy system Unit B functions.

Moreover, because of the flexibility provided by the SIS Unit B functions and the different Unit B information among the different Unit B offices, the Unit B functions were not built consistently across the university. This inconsistency in building the SIS Unit B functions made it difficult to troubleshoot problems. It also made it difficult for FUSG3 members to support each other. However, despite of some of the shortcomings of the SIS Unit B functions, Winona thought it was a great tool to provide students the information they need and to better communicate with them.

Winona felt that the university communicated well with the team leaders; in turn, the team leaders communicated with team members and kept them well informed about the implementation. After the SIS went live, according to the FUSG3 group, they received adequate information about the SIS.

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. Winona thought that the initial SIS implementation training was good. However, for the SIS Unit B functions implementation, even thought the initial SIS Unit B function training was adequate, the vendor consultant did not provide good documentation that reflect the processes, polices, and procedures practiced at Big U. In addition, Winona felt that the sub-team members failed the university by not having training in place for new Unit B staff.

Upon Winona's reflection, the cooperation and the willingness to help each other among various offices stood out most for her during the SIS implementation. According to the FUSG3, they relied on each other as resources for the SIS Unit B functions. In addition, Winona agreed with FUSG3 about the importance of having technical support to ensure the SIS Unit B functions worked properly. Winona thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was dedicated resources for testing upgrades as well as problem solving and troubleshooting as they occurred.

Winona affirmed that upper administration made very good choices in choosing implementation team leaders to lead the SIS implementation. Overall, Winona declared that the implementation experience was a positive one. She saw the benefits of technology change and how it could better serve students. As a matter of fact, it changed her attitude for the better toward technology change because she saw the potential benefits.

Tom's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the SIS implementation, Tom remembered concerns and frustrated because users had to change their processes for the new SIS.

> *I just remember early on a good deal of concerns and frustration that we are so used to doing things this way and we had a homegrown system which was built around our processes. And then when we went to the SIS, we had to convince people that they would be able to do their jobs but that they would have to do it in a different way.*

Surprisingly, for the SIS Unit B function implementation, Tom believed that the mandate was necessary for the success of the implementation as well as for users to adopt

and use the Unit B functions.

No choice! The most important thing is top down and we have no choice!

System Attributes Contributed to the Acceptance or Resistance of SIS

Compared to the legacy system, Tom commented that initially he had to go to more screens to look up information. However, once he learned where to find what information in the new SIS, he adapted to using the SIS. In addition, Tom realized that there were functions that the new SIS could do that the legacy system couldn't.

> *But a lot of time, I had to tell you, a lot of time the processes really didn't change that much; rather we learned how to adapt to doing the same processes using the SIS instead of the legacy system. Instead of going to one screen where you could see all kinds of information that you could use, you ended up having to go to 4 and 5 different screens in order to get the same information. But gradually we realized well at any one time I don't really need to look at 5 screens, I just need to know which one screen has the information I need for the moment. Everybody got used to it and I bet now if we went back to the legacy system, people would have exactly the same feeling. They'll be completely freaked out and wonder well the legacy system can't do that.*

Staff Attributes Contributed to the Success of the SIS Implementation

Tom was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Tom adopted and used the new system. In addition, he made sure the information for Unit B functions were built accurately.

> *In fact when they first trained us on Unit B, that's was one of the things that kind of caught us a little bit off guard. Their own system trainers said you can do it however you want to do it. There's many different ways to program Unit B functions. You can program it to do this and you can program it to do that, you decide. And so everybody pretty much came up with their own way and the goal is to make sure it is accurate.*

Communication

Because of the negative feelings generated by the dislike of the new SIS Unit B functions on campus, as part of the Unit B function implementation team members, Tom was glad that the team leader stressed the success of the implementation was dependent on the team's positive attitude. In addition, it was the team's responsibility to highlight the benefits of the SIS Unit B functions.

> *With regards to communication I think one of the things I remember being most critical, again the team leader saying it's very very important that we be just as positive as possible and get people to understand this is not going to be the end of the world, this actually has some very positive aspects to it and we got to stop this moaning and groaning and complaining about it. Especially as members of the implementation team and I know I am a bad one for moaning and groaning and complaining, I do it all the time, but I remember that being something that the team leader and everyone else stress the crucial to the success was that it's all too easy for all of us to turn it into a gripping session, a gripping mode and we've got to keep positive attitudes and believe it will work and we'll get through this and we did.*

Functional Users Support Group

According to the FUSG3, they relied on each other as resources for the SIS Unit B functions.

> *For the functional users support group, the group that we have, we use each other as resources for everything in the SIS Unit B functions.*

Training

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. Tom thought although the SIS Unit B training was adequate, too few people were trained. In addition, Tom was worried about Big U suffering from knowledge loss when staff from implementation team retired or left for other employment.

> *Going through the combed bound book, that was part of the original training that we all went through on how to build a frame. And if I recalled it was about 2 or 3 days where they brought in a consultant and we went to the training room and they showed us step b step how to build a program from scratch. And it was just a small group of folks and we were expected to be the super user for our college and when a new program came along we build it. When a change came along, we change it. So there was training but it was limited to a very small number of people. The idea was that you didn't want just anybody to go out there and be able to change the frame. It needed to be very select trained people. Well that's great. How many of us are there still around?*

Team

Upon Tom's reflection, he agreed with FUSG3 that the cooperation and the willingness to help each other among various offices stood out most for him during the SIS implementation.

Critical Support Contributed to the SIS Adoption Process

Tom agreed with Vanessa that the most important thing in supporting his adoption and use of the SIS was the SIS office support for problem solving and troubleshooting as issues occurred.

> *I like the SIS office support because the minute I have a question and I can't figure it out and I have a problem, I just email the SIS office support and within sometimes minutes or seconds, I get a respond. Yes, an accurate respond.*

As for the SIS Unit B function implementation, Tom agreed with FUSG3 about the importance of having technical support to ensure the SIS Unit B functions worked properly.

> *If you all don't have the programmer, you'll be sunk.*

Leadership

After the SIS Unit B functions went live, the SIS Unit B function implementation team became the FUSG3 for Unit B offices. FUSG3 met once a month to help each other

troubleshoot issues. However, Tom felt FUSG3 should take ownership and leadership in creating documentation for training.

> *Well you can't really expect a centralized office to pick up with that. That's why each of our college has someone trained to do this. Suppose there's someone, but all the colleges made these changes so rapidly and so often, they know the information better than anyone else so there needs to be someone trained in each college to do the Unit B functions, to make that happen. And if there's not adequate documentation, then we need to create it and I think that's a perfect role for the Unit B group. Rather than just get together once a month and complain about how Unit B function is not working, let's get together and create documentation for training.*

Feelings Generated from the SIS Adoption Process

Tom declared that the implementation experience was a positive one because he liked the better technology and functions offered by the new SIS.

> *I like the SIS, I mean, I honestly do. The legacy system is a great homegrown system that has some limitations as well.*

Tom's Structural Description

Tom was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for his unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Tom adopted and used the new system.

At the beginning of the SIS implementation, Tom remembered concerns and frustrations because users had to change their processes for the new SIS. Compared to the legacy system, Tom commented that initially he had to go to more screens to look up information. However, once he learned where to find information in the new SIS, he adapted to using the SIS. In addition, Tom realized that there were functions that the new SIS could do that the legacy system couldn't.

As for the SIS Unit B function implementation, Tom believed that the mandate

was necessary for the success of the implementation as well as for users to adopt and use the Unit B functions. Most likely, this was because the mandate empowered the SIS Unit B function implementation team to convenience Unit B office staff to adopt and use the Unit B functions even though it was difficult to use.

Because of the negative feelings generated by the dislike of the new SIS Unit B functions on campus, as a member of the Unit B function implementation team, Tom was glad that the team leader stressed the success of the implementation depended on the team's positive attitude. In addition, it was the team's responsibility to highlight the benefits of the SIS Unit B functions.

During the SIS Unit B function implementation, the implementation sub-team members were responsible for learning the system functions for their units, documenting new business processes for the new system, and performing functional training for their unit. Tom thought although the SIS Unit B training was adequate, too few people were trained. In addition, Tom was worried that most of the original Unit B function implementation team members were no longer at Big U; thus, without documentation Big U suffered knowledge loss when staff from implementation team retired or left for other employment.

After the SIS Unit B functions went live, the SIS Unit B function implementation team became the FUSG3 for Unit B offices. According to the FUSG3, they relied on each other as resources for the SIS Unit B functions. In addition, it was the responsibility of the FUSG3 to make sure the information for Unit B functions were built accurately. In addition, Tom felt that as the Unit B functions experts, FUSG3 should take ownership and leadership in creating documentation for training.

Upon Tom's reflection, he agreed with FUSG3 that the cooperation and the willingness to help each other among various offices stood out most for him during the SIS implementation. In addition, Tom agreed with Vanessa that the most important thing in supporting his adoption and use of the SIS was the SIS office support for problem solving and trouble shooting. As for the SIS Unit B function implementation, Tom agreed with FUSG3 about the importance of having technical support to ensure the SIS Unit B functions worked properly. Overall, Tom declared that the implementation experience was a positive one because he liked the better technology and functions offered by the new SIS.

Salma's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the SIS implementation, Salma stated she had no problem using the new system.

> *I find the system easy to use, there's a whole component of it that I learned after this job that I had no prior knowledge of and I was able to move forward relatively quickly so I find it easy to use.*

System Attributes Contributed to the Acceptance or Resistance of SIS

According to Salma, the SIS Unit B functions were implemented after the SIS went live; thus, they kept using the legacy system Unit B functions.

> *When we first got the SIS, we didn't have the SIS Unit B functions, we had the legacy system Unit B functions.*

However, Salma commented that the Unit B function offices did not plan to use the SIS Unit B functions because the legacy system Unit B functions were available even after the SIS Unit B functions went live. However, when the Unit B offices found out they had to use it, there was no documentation.

> *We had the legacy system Unit B functions, especially building frames and that kind of stuff, we had the legacy system Unit B functions first and we didn't care whether we knew how to use the SIS Unit B functions because we weren't go to use it anyway. And then all of the sudden we had to start using it and there was no documentation.*

When other FUSG3 team members who had gone through the SIS Unit B functions implementation mentioned that the vendor consultant trainer created documentation, Salma felt that the documentation was insufficient.

> *Is that spiral thing, is that what they left? Ok then that was bad. It doesn't address what we do.*

In addition, Salma stated that she like the legacy system Unit B functions more than the SIS Unit B functions because the SIS Unit B functions were more complex, cumbersome, and time consuming to use.

> *Overall between the two of them, I like the legacy system Unit B but certainly there is some part of the SIS Unit B that are better. But the legacy system Unit B is easier in terms of to fix things and to manipulate things and in that aspects that's good and some information you can actually see that you could see on the SIS Unit B. The building and the maintaining of the SIS Unit B functions is more time consuming and it's the reason why a lot of other things can't get done because that takes so much time to do. It took so much time and it took the programmer, and if it weren't for the programmer, it still won't be working.*

Staff Attributes Contributed to the Success of the SIS Implementation

Because of the complexity involved in building the SIS Unit B functions, Big U upper administration leadership hired the vendor consultant to build the system to ensure a successful SIS Unit B function implementation.

> *But I will say thinking back to the day that they turn Unit B on, in terms of using it, that was a non-event too. I don't remember that we had a big fit about having everything wrong when looking at the information. Yes from that stand point, that portion of it was a non-event. But when it comes to the component on our side of it and we had to take care of it, it was the longest event.*

Similar to all the Unit B function offices at Big U, Salma did not consider herself

or her office sufficiently learned to use the SIS Unit B functions. Whenever they had issues, they tried their best to troubleshoot by trial and error and to make it work.

> *In my office, my people are pretty good about trying to figure it out how to fix it, until to a point that they would like cry or something and then they bring it to me. But usually by the time they bring it to me, it was a hot mess or it was going to take me like a day to figure out what it is, I mean a hot mess, that makes it, and I'm certainly not a techie and it's not something necessary that I can call the SIS office or somebody to deal with that cause it's a matter of piling through it and going back to it later. So it does require a certain skill set on my part that I wouldn't necessary expected to have otherwise.*

Communication

Salma commented that the FUGS3 meetings were mainly used to troubleshoot problems related to the Unit B functions.

> *Well we use the group a lot to deal with troubleshooting problems that are already there.*

Functional Users Support Group

According to Salma, although the FUSG3 was for the SIS Unit B functions, users do not have time to help and support each other to troubleshoot the issues because the Unit B functions were very complex; thus, users felt they were asking too much from fellow Unit B users to spend the time.

> *The thing that's not helping is that the darn thing is just so complex and difficult and sometimes when Reese calls me to figure it out, it takes me a half hour to figure it out so I have to go OK I got started but I have to go do this and I'll come back and then we'll try to make it work so that's the real fear of calling somebody else is that your problem is so big that you don't want to bother others.*

Training

As a departmental office staff within the college, Salma received basic training from the SIS office and function specific training from the appropriate implementation sub-teams.

> *I was here when SIS implemented and from what I can remember I was at the, as Vanessa was, I was a departmental user, I don't remember I had great difficulty with that portion of the implementation that comes to mind at least. We went through training through you, the SIS office, as well through the college training on certain components of it.*

However, when she moved from the departmental office to one of the Unit B offices after the SIS Unit B functions went live, she had to learn the SIS Unit B functions from staff because there was no training offered.

> *I do agree that it was more of a challenge when I took the current position that I have now in terms of building the Unit B functions or even some other Unit B functions; I got that experienced from within my own office. But what I found was the people who knew how to do that now are no longer in my office and if I were to leave my office or god forbid get hit by a bus, they won't know how to build anything. For Unit B staff when it comes to making changes to the information, you learn it from someone in your office, you don't learn it off from anything or get it through any training.*

In terms of training Unit B staff, the Unit B FUSG members that had not gone through the SIS Unit B function implementation did not believe it was their responsibilities to be trainers for the SIS Unit B functions.

> *No, no, we are not training anybody, it's not our responsibility. We are not trainers.*

Team

Upon Salma's reflection, she felt the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions.

> *Also we use it to deal with initiatives that are coming down from higher up, above our level, be it from the Provost Office or Board of Regents, whoever it is, we use it as a group trying to troubleshoot how to handle that type of situations.*

Critical Support Contributed to the SIS Adoption Process

Salma thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was support from the upper administration to ensure there was

appropriate continual training and the creation of documentation for the SIS Unit B functions.

> *But what hadn't historically implemented at the time until we had the training this year, there was no manual or anything that come out of that, especially when it comes to Unit B functions building, there wasn't anything that was done except right when we first got the SIS Unit B implementation, period. It's the long range planning that wasn't done. It's like we got this new thing, here learn it. But with a product that is changing, we have to have some kind of long term mechanism to keep training the individuals.*

In addition, Salma stressed that technical support was critical in implementing policy changes that required updating the SIS Unit B functions.

> *It took a lot of programming to make the policy work and none of us are capable of doing at all.*

Leadership

Salma affirmed the lack of support from upper administration leadership to put in place long term planning and dedicated resources to have continual training for the SIS Unit B functions.

> *I think it is really going to be difficult if there is not dedicated resources. That's because you can't always, say somebody gets another job and they have to leave in 2 weeks or they have to move, you are the only person who knows how to do this and have that particular skill sets. They can't probably stay long enough to teach somebody else how to do this so what are you going to do if that's not available? You know they may not be a situation that you can call them.*

In addition, Salma had no confident that the SIS Unit B functions would work correctly after each upgrade; thus, leadership should also provide dedicated resources to test upgrades and create documentation.

> *Who knows even if you've tested, once you start, it seems like now there's something that's wrong that you don't know and to try to write documentation for that and try to do the rest of the stuff that you have to do, it's almost impossible for people to do…unless there's one person doing this and that's the whole job. That's why it's still fall on the way side. Or by the time you get to update the documentation, it's time to do another upgrade and it doesn't really matter*

because it's changed.

Feelings Generated from the SIS Adoption Process

Even though the transition of the SIS implementation was a good experience, Salma felt the SIS Unit B implementation did not transition well because it was not part of the initial SIS implementation.

> *It also suffers because it was 2 distinct things. It would have been a different thing if we had Unit B implementation going at the same time as the SIS implementation but we didn't.*

Salma felt that since the SIS Unit B functions were used by the entire university, the expectation for Unit B offices to continue to maintain the SIS Unit B functions without additional resources was not seen as an equitable distribution of responsibility.

> *I agree, you know, thinking about all the changes had been mandated that I had to make, I remember, well you witness half of them (laugh), the panic, you know, oh my goodness, and actually if you happened to mess something up and they call us for that and I think that it is not an equitable distribution of responsibility if other people use it and we are the only one maintaining it.*

Salma's Structural Description

For the first several years employed at Big U, Salma transitioned among several departmental offices during the SIS implementation. At the initial SIS implementation, Salma stated she had no problem using the new system because she found the system easy to use.

According to Salma, the SIS Unit B functions were implemented after the initial SIS went live; thus, they kept using the legacy system Unit B functions. After the Unit B functions were implemented, she took a leadership position with one of the Unit B offices. Due to the leadership role in one of the Unit B function offices, she became a member of FUSG3.

Even though the transition of the SIS implementation was a good experience, Salma felt the SIS Unit B implementation did not transition well because it was not part of the initial SIS implementation. Salma commented that the Unit B function offices did not plan to use the SIS Unit B functions because the legacy system Unit B functions were available even after the SIS Unit B functions went live. Salma stated it was because the Unit B function offices liked the legacy system Unit B functions more than the SIS Unit B functions. The SIS Unit B functions were more complex, cumbersome, and time consuming to use. However, when the Unit B offices found out they had to use the SIS Unit B functions, Salma stated that there was no documentation. When other FUSG3 team members who had gone through the SIS Unit B function implementation mentioned that the vendor consultant trainer created documentation, Salma felt that the documentation was insufficient because it was a generic documentation that did not address the procedures at Big U.

Because of the complexity involved in building the SIS Unit B functions, Big U upper administration leadership hired the vendor consultant to build the system to ensure a successful SIS Unit B function implementation. However, it was hard for the Unit B implementation team to transition to maintain the component once it went live because they were not familiar with the system. Similar to all the Unit B function offices at Big U, Salma did not consider herself or her office sufficiently learned to use the SIS Unit B functions. Whenever they had issues, they tried their best to troubleshoot by trial and error and to make it work. Furthermore, because the SIS Unit B functions were so complex and unique, in order to resolve any SIS Unit B function issues, Salma felt that it required special analysis skill set in addition to being knowledgeable in the SIS Unit B

functions.

As a departmental office staff within the college, Salma received basic training from the SIS office and function specific training from the appropriate implementation sub-teams. However, when she moved from the departmental office to one of the Unit B offices after the SIS Unit B functions went live, she had to learn the SIS Unit B functions from staff because there was no training offered. In terms of training Unit B staff, the Unit B FUSG members that had not gone through the SIS Unit B function implementation did not believe it was their responsibilities to be trainers for the SIS Unit B functions.

According to Salma, although the FUSG3 was for the SIS Unit B functions, FUSG3 members do not have time to help and support each other to troubleshoot the issues because the Unit B functions were very complex; thus, they felt they were asking too much from fellow FUSG3 members to spend the time. In addition, Salma commented that the FUGS3 meetings were mainly used to troubleshoot problems related to the Unit B functions. Upon Salma's reflection, she felt the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions.

Salma thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was commitment from the upper administration to ensure there was appropriate continual training and the creation of documentation for the SIS Unit B functions. In addition, Salma stressed that technical support was critical in implementing policy changes that required updating the SIS Unit B functions.

Salma affirmed the lack of support from upper administration leadership to put in

place long term planning and dedicated resources to have continual training for the SIS Unit B functions. Moreover, Salma had no confident that the SIS Unit B functions would work correctly after each upgrade; thus, leadership should also provide dedicated resources to test upgrades and create documentation. Salma felt frustrated because in addition to her full time job, she was expected to serve as one of Unit B's functional expert that was responsible for performing functional training, testing upgrades, and creating documentation. Lastly, Salma felt that since the SIS Unit B functions were used by the entire university, the expectation for Unit B offices to continue to maintain the SIS Unit B functions without additional resources was not seen as an equitable distribution of responsibility.

Patrick's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the SIS implementation, like most long time employees who loved the legacy system, Patrick remembered being upset by the mandated change because it meant he had to learn a new system and change processes for the new SIS.

> *Well I started with the university 1989 so I was well versed, comfortable, and loved the legacy system. And then when the then Registrar and vice president announced that we were buying the SIS and going with the rest of the university system except for couple of other schools, there were more than a couple of people that were a little upset at the decision because it was going to be a huge gargantuan change.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Compared to the legacy system, Patrick commented the new SIS was more complicated and difficult to use; thus, users had negative feelings toward the SIS in general.

> *Unit B system came on a couple years later. We love the fix for Unit B system!*

> *Before that we use the legacy system Unit B functions and that worked wonderfully but evidently the Board of Regents didn't like us using the legacy system Unit B functions with the SIS so we switch over to the Unit B system within the SIS and that's a lot more difficult to use than the legacy system Unit B functions and doesn't give as much information on one sheet of paper. But that's the way we talked about the legacy system. The legacy system had pretty much everything on one page where the SIS you have to gone to several screens to get the same amount of information. Yeah just to answer your question, we hated it at first but now in retrospect, thinking back it was really the only way we could have done it and get through it.*

However, Patrick thought some of the better technology and functions offered by the new SIS helped end some negativity toward the SIS.

> *The other thing I thought helped ending a lot of the negativity was when the reports came on, we started rolling more and more of the data from the legacy system in to the SIS and you could get reports continuously as supposed to run your reports and wait overnight and for the mail to deliver it from down in the hole. That was a great turning point, reports.*

Staff Attributes Contributed to the Success of the SIS Implementation

Patrick was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for their unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Patrick adopted and used the new system. In addition, Patrick commented that the Unit A implementation team made sure Unit A functions were built accurately and a manual was created to train other Unit A staff.

> *Going back to implementation, of course, (chuckle) the mechanisms for us to adopt it was well use this 2002 and forward so we had to obviously learn the system. We didn't even realize at that time, what kind of change we were in for because we not only had to learn the SIS, we had to implement it. We had to build the tables and start from scratch and there wasn't an implement with a school this size that had gone to SIS. We didn't have manuals, we had to write the manuals, didn't have built in tables, we had to build the tables, it was, as it started to unfold and see the size of the job, it pretty much dominated out whole working life because it was meetings not just every week but more than once a week in this room we spent hours and hours in this room building and learning the Unit A function, writing the manuals and determining how, you know, a lot of policy was*

made in this room by the Unit A staff.

Communication

Although there were numerous implementation sub-teams and each team had staff representatives from various units, Patrick felt that communication was excellent among team members within each team as well as across various teams. However, he felt that the communication from the university upper administration during the initial period of the implementation was poor.

> *Well, through the whole experience, I've seen excellent communication and abysmal communication and to everything in between. Where do I see excellent communication…from most of the users, the Unit A users, I mean, half of my email during 2000 to 2002 had something to do with the implementation and we met regularly and we always had something going on. And when it came time to implement Unit A, we had a representative from our office going to those meetings and coming back and sitting down with us and shared this is what we learned. You know just each unit had their own committee going and I thought that was some excellent communication. Where we got poor communication, it may have been at the very beginning, I guess it hadn't daunt on us how huge the process was going to be and we were getting consultant coming in for teamwork training. We hated that the touchy feely stuff that we've but didn't need, didn't feel like we needed it, and it wasn't helping us learn the SIS. We've been working in the legacy system as a user group for, well, since I've been here since 1989 and so were the others and some with a lot more time than that so we felt we worked really well as a group already. We wanted to figure out how it work and what is it that we needed to do to get ready in time for 2002. And it was just a waste of time and energy and money for that process.*

Functional Users Support Group

According to Patrick, in addition to serving as resources for each other within FUSG2 for the SIS Unit A functions, FUSG2 took ownership in serving as the Unit A functional experts and in training Unit A staff to maintain the knowledge base for Unit A functions.

> *We are going to train them within the colleges for our practices and then as far as university perspective wide, it's from the FUSG2 Unit A users group. Obviously that was adopted by the Provost because it didn't cause any money and it's really*

> *the way that the university has been run for 100 years now, you know after the first retirement, if people didn't train the people behind us, there wouldn't be any university since the 1920s. So I'd say we had in place what we always have in place, more than adequate insurance for the future.*

When discussion came up about the best way of maintaining documentation with best practices and policies, Patrick maintained that it would be difficult to maintain them centrally because each college has different policies.

> *Oh you'll go crazy if you try!*

Training

Patrick thought the general SIS training provided by the SIS office and the function specific training provided by the vendor trainers were helpful.

> *The training we received from the university, your group, and the vendor actually sent consultant trainers. I can't remember the year, 2000 I guess, was really our first look at it, that was very helpful to get a trainer in and get familiar with it. And then just continue bouncing ideas off each other in groups*

In addition, although most of the original SIS implementation team leaders had left Big U, Patrick credited them for providing and putting in place good training for staff from the various unit offices.

> *Very few of those people were still with the university and a lot of information had left with them. Some left not too long after, some left for another schools, some left the area but still with the university, some retired. But obviously those people passed on what they knew. They did a good job of training their people. And I not only have to learn functions from Unit A but Unit A, Unit B, and reporting to do my job.*

Team

Upon Patrick's reflection, he agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices stood out most for him during the SIS implementation.

Critical Support Contributed to the SIS Adoption Process

Patrick credited his successful SIS adoption, despite the negativity, to the great communication and leadership provided by the implementation team leaders.

> *I had a lot of good communication that I realized now that the Unit directors saved us an awful lot of headaches because they were a) born leaders and b) they realized that with the change that there was no way that we were going back and they forced us, well with their attitude, helped us adopt the SIS. So yeah we have good communication from the start, though I wasn't happy about it. You know like you said before thinking back we went as smooth as we possibly could.*

Patrick also thought that the SIS office support for problem solving and troubleshooting as issues occurred helped him toward the adoption and use of the SIS.

> *Using the SIS office staff, that was extremely helpful. We would send an email and get response back almost immediately, you know, if not immediately, within an hour. So that's extremely helpful for us being able to use it and implement it and adopt it.*

In addition, Patrick stressed the importance of having technical support in converting data from the legacy system to the SIS for Unit A functions without which the Unit A function implementation would not have been successful.

> *The university of course provided technical staff who wrote everything from the old system to the new system and without that there's no way we could have manually input any of that so the technical staff saved us. (Sign) We are just not used to that huge….we are doing this gargantuan job on top of doing our regular job. There was absolutely no down time for years. I mean without the technical staff, there was no way we could have pulled any of that off!*

Moreover, because of the negativity toward the SIS, university upper administration made sure they had respected and knowledgeable team leaders on board to get buy-in from staff.

> *Yeah I mean you know the negativity about it. It was like I guess the way it was explained to us by our then boss, it's like a death, you're going to have to get over it. You are going to have to go on. No sense crying over it and we just going to have to move on…so that's where the support came from. We got support from the university level and they appointed strong heads of the different units, like for*

> *Unit A, we had functional leaders and we also had the associate provost came in and sat in on us as part of our meeting, to move things along I guess. They were very concerned that we weren't going to be ready in time, which we resented that the associate provost had to come in and sit on our meeting. But they do move things along for us so yeah we did get some strong support out there, at the beginning anyway.*

Leadership

When it came to changing polices due to the need to change business practices for the new SIS implementation, Patrick commented it was frustrating that the university upper administration did not clarify to what degree was the Unit A implementation team empowered.

> *A lot of policies and obviously there was a lot of business practices changes and we didn't know what policy we could set versus what needed to go before committee somewhere or the senate, we were not told and that was not communicated. So we practically went forward as if we were writing the policy and wound up the university adopted a lot of those ideas since they were as close to what we had under the legacy system and we managed to do that. Yeah but there was very little communication coming down from the top level administrators and so we had poor communication from the top down to us.*

Feelings Generated from the SIS Adoption Process

Patrick declared that the implementation experience was a positive one because he realized that although the SIS implementation was a lot of work, the involvement and ownership of functional users made it possible to have a successful implementation of a new SIS.

> *Well looking at the implementation, I'm just appalled the amount of time it involved, the meetings and the extra work that it piled on and stayed late to complete them. But then when we got it up and running, it was an amazing sense of accomplishment so yeah the time, I hated it like we wondered if we were able to get it done at times. Having gone through it now and seeing the way it was done, I realized now that it was a great way to do it, you know, I guess it was the only way to do it. If we've had the tables built and the manuals ready, we probably wouldn't have learned it as well as we did.*

In addition, Patrick was proud of the accomplishments he achieved with the SIS

adoption and because of it he was more acceptance of change.

> *I mean the more responsibility you've got, the more you realized what you can do, you can multi-task a lot better because of the implementation of the SIS and do all these extra homework in addition to my regular jobs, I also realized that there's always going to be a next big thing. There's always something extra that's going to be going on so I realized that and I've accepted that as part of my job and that's good that they keep me doing those things. If they ever said, oh don't worry about that, I don't have plans for you anymore then I get worry.*

Patrick's Structural Description

Patrick was a long time employee at Big U before the initial SIS implementation and was a member of several implementation sub-teams for his unit functions. Because of the commitment to the university and the accountability to the team members, despite the initial dislike of the new system, Patrick adopted and used the new system.

At the beginning of the SIS implementation, like most long time employees who loved the legacy system, Patrick remembered being upset by the mandated change because it meant he had to learn a new system and change processes for the new SIS. In addition, users had negative feelings toward the SIS in general because when compared to the legacy system, the new SIS was more complicated and difficult to use. However, Patrick thought some of the better technology and functions offered by the new SIS helped end some negativity toward the SIS.

Because of the negativity toward the SIS, university upper administration made sure they had respected and knowledgeable team leaders on board to get buy-in from staff. Patrick commented it was frustrating that the university upper administration did not clarify how empowered the Unit A implementation team was when it came to changing polices due to the need to change business practices for the new SIS implementation.

Although there were numerous implementation sub-teams and each team had staff representatives from various units, Patrick felt that communication among team members within each team as well as across various teams was excellent. However, he commented that the communication from the university upper administration during the initial period of the implementation was poor. He felt that they did not understand the Unit A implementation sub-team member had been working well as a group for over 10 years before the SIS implementation. Instead of wasting time to go through teamwork training, they were anxious to start the SIS training so they could start learning and building the system to meet the deadline of the mandated change.

Patrick thought the general SIS training provided by the SIS office and the function specific training provided by the vendor trainers were helpful. In addition, although most of the original SIS implementation team leaders had left Big U, Patrick credited them for providing and putting in place good training for staff from the various unit offices. Moreover, Patrick stated that the Unit A implementation team made sure Unit A functions were built accurately and a manual was created to train other Unit A staff. In addition to serve as a resources for each other within FUSG2 for the SIS Unit A functions, FUSG2 took ownership in serving as the Unit A functional experts and in training Unit A staff to maintain the knowledge base for Unit A functions.

Patrick credited his successful SIS adoption, despite the negativity, to the great communication and leadership provided by the implementation team leaders. Patrick also thought the SIS office support for problem solving and troubleshooting as issues occurred also supported him toward the adoption and use of the SIS. Moreover, Patrick stressed the importance of having technical support to convert data from the legacy system to the

SIS for Unit A functions without which the Unit A function implementation would not have been successful.

Upon Patrick's reflection, he agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices stood out most for him during the SIS implementation. Patrick declared that the implementation experience was a positive one because he realized that although the SIS implementation was a lot of work, the involvement and ownership of functional users made it possible to have a successful implementation of a new SIS. Overall, Patrick was proud of the accomplishments he achieved with the SIS implementation and because of it he was more acceptance of change.

Felicity's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Felicity stated staff were fearful and apprehensive because staff that were not at the management level within their unit was not involved in the implementation process.

> *At the initial process, I would say the staff really wasn't involved because management was more so involved with implementation and were part of the whole process. However, I know that staff has some fear. They were apprehensive to the whole process.*

However, Felicity observed that the mandate for implementing the new system did not distress new staff.

> *They weren't having any fear or anxiety like the rest of us were. They don't know about the other system that were already there.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The negative feelings generated toward the mandated change were because of the

need to learn a new system that was complex and difficult to learn.

> *I think it was a major learning curve for me. I am still fearful, still apprehension is going on and for us, you know, the legacy system, that one screen, and that was it. And try to figure that all these new forms, that was a challenge, a major challenge.*

However, positive feelings were also generated because of the better technology and functions offered by the new SIS.

> *Because I think there were some things that in the legacy system that you couldn't do that you can now do in SIS. And SIS still ever changing based on the upgrades and you know things can be built. Like for us, one of the Unit F processes, we have to ask our technical team, you know, how can we use this better in a different way and if we don't have SIS, there wouldn't be a way to track that process now and I'm loving it. And before there was no way for us to track in the system automatically. It automatically just feed based on what we do. In the legacy system we manually plug everything in.*

Staff Attributes Contributed to the Success of the SIS Implementation

Felicity was not part of the management team during the SIS implementation. However, she stated that the Helen was part of the implementation team was committed to Unit F and made sure the unit got the needed support for SIS Unit F functions to work properly during the implementation as well as for subsequent upgrades.

> *I don't know that I could say upgrades are such a major issue for us but I'm sure Helen who is no longer with us can explain that a lot more since she was more involved. But I know anytime that there was an upgrade and if it was something that didn't work the way we need it to work, I know she jumps right on it and I know she got the support she needs from wherever she needed the support from.*

After the departure of Helen, Felicity took on some of the responsibilities and joined the FUSG1 representing Unit F. Although she was fearful of this new role, she was determined to rise to the challenge.

> *I think for me, in addition to what I've said, because now I'm in this place, I'm…it's somewhat of a fear for me because I've never had to do this and I deal with a different side of the world that Helen deals with. So I am a little apprehensive and I'm a little fearful but I am going to rise up to the challenges*

and see what we get.

Communication

Felicity thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective. However, the follow-up written communication served as a reminder of the implementation tasks that they needed to complete.

> *I think what I want to say about communication is that once again we were not on the implementation team so to speak. But once again I thought they still communicated to us really well. What worked for us was we had staff meetings and we were told in staff meetings so we had the verbal communication and then we had the written communication by way of email so I think that worked very well because it reminded us of what we needed to do.*

Functional Users Support Group

The SIS implementation created an overwhelming amount of information that had to be learned for Unit T functions. However, Unit T's functions were unique and the Unit T staff relied on the Unit T associate director who was part of the SIS implementation team to learn and share the information. The unit also had function specific training from the vendor consultant during the SIS implementation. Although Unit T's functions were unique, they were inter-dependent with other units' functions. Thus, Felicity felt the FUSG1 was beneficial in serving as communication and support tools.

> *As for the functional users support group, this is new for me. I think that it's really great that there is a support group with people that understand what you are going through and that can support you emotionally as well. So I think it works. I don't have any problems with the support group because this is all new for me currently right now. And I will be on this team for a long time but I think it's a good thing because I'm realizing that....as in today, I went to Brad and asked him some stuff and he understands so I'm glad we have that support group.*

Unit T also relied on an external FUSG to share best practices for the SIS Unit T functions since it was a system used within the university system.

> *Yea for me it's from the external FUSG which is the Unit F advisory group for the State. I get support from them as well. So you build the network with outside entity and you get that support that you need which is good and when you are stuck and you want to know how somebody does something and you can learn what they do. And the list serve that was provided, they are all a part of the networking and understanding how other does something different that might help, you know, that you might want to implement of not implement, to see what they do so you can do something better within your unit.*

Training

Felicity stated that the Unit F management was responsible for the Unit F implementation in learning and building the SIS Unit F functions, documenting new business processes for the new system, and making sure Unit F staff received appropriate training from the vendor consultant.

> *You know, our associate director is not here anymore but she was over that team and so she made sure we did everything we needed to. She made sure we got the appropriate training in place. She made sure we attended the appropriate training. She encouraged us to sign up for anything that we wanted to learn, anything new that would affect our job responsibilities or functions so I thought the training went really well. And the person for the vendor, I think it was the vendor consultant, she was absolutely wonderful in our training process when she did them, however many times she did them. And you could always call her even if we weren't part of the management team and she would still readily accept whatever questions you have for learning purposes.*

Team

Upon Felicity's reflection, teamwork within her unit stood out for her during the SIS implementation.

> *But what we also did was we kind of internally learn from each other. we signed up anything addition that will teach us more about SIS because it was a new system, you know, it's not something that we are used to...and we all loved the legacy system...so it was pretty new to us but I know internally we all teach ourselves as well as we attended anything extra that SIS office put out there for us, any functions that we weren't used to doing in the legacy system. So overall I'd say when we eventually got it we liked the system.*

Since joining the FUSG1, Felicity appreciated the inter-connectedness among all

the units and the collaboration the team demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university.

> *Cause it doesn't only impact your office which is why the decision is being made. I'm sure the team is looking at the whole to determine what's the best time for that to happen.*

Critical Support Contributed to the SIS Adoption Process

Felicity thought that the most important thing in supporting her adoption and use of the SIS was the support of technical staff as well as the SIS office staff to resolve issues to ensure the SIS Unit F functions are working properly.

> *Well, what I like most, is the fact that, and I don't know if I don't have a problem is because I have the cell phone number of our technical person. I can call him and I can say change this, and he will change this right away. I like when I can reach my person and get it done. And I would always love that. I hear complaints from other schools that to get to their IT person takes forever and I think not here, not where I am. We have the SIS office people and we have the technical people and I rave about that I just know how hard it is for some of these other schools to get help.*

Leadership

Felicity affirmed the importance of leadership support from Unit F management during the SIS implementation as well as subsequent upgrades in order for staff to have a smooth transition.

> *I don't know that I could say upgrades are such a major issue for us but I'm sure Helen who is no longer with us can explain that a lot more since she was more involved. But I know anytime that there was an upgrade and if it was something that didn't work the way we need it to work, I know she jumps right on it and I know she got the support she needs from wherever she needed the support from.*

Feelings Generated from the SIS Adoption Process

Felicity declared that the implementation was a positive growing and learning experience.

> *I think for me it increases my knowledge of systems cause I'm not prior to that I*

> *wasn't...legacy system was legacy system, but then kind of have to learn what you have to learn so it increases my knowledge in the sense of I was better able to give more information based on whatever the student issue was or whatever the issue was that we are trying* to resolve for our office. So it increases my knowledge of all of those things.

Felicity's Structural Description

Felicity worked for the Unit T office at Big U for several years before the implementation. However, she was not part of the management team during the SIS implementation. At the beginning of the implementation, Felicity stated staff were fearful and apprehensive because staff that were not at the management level within the unit were not involved in the implementation process. They only knew that there was a mandate to change from the much favored legacy system to a new system. It was interesting that Felicity observed that the mandate for implementing the new system did not distress new staff because they did not have the knowledge of the legacy system; thus, they did not go through a transition with the SIS per se.

Like other staff that had negative feelings generated toward the mandated change, Felicity agreed that it was because of the need to learn a new system that was complex and difficult. However, Felicity appreciated the better technology and functions offered by the new SIS and made life easier by not having to manually enter some data.

Felicity stated the importance of management that was committed to Unit F and made sure the unit got the needed support for SIS Unit F functions to work properly during the implementation as well as for subsequent upgrades. The management of the Unit F function was responsible for the Unit F implementation and learning the system functions for their unit, documenting new business processes for the new system, and making sure Unit F staff received appropriate training from the vendor consultant.

Felicity thought that the primary face-to-face communication used to channel information about the implementation during staff meetings within their own unit was effective. However, the follow-up written communication served as a reminder of the implementation tasks that they needed to complete was helpful.

Felicity thought that Unit F management did well in communicating and providing appropriate training to the unit. After the departure of Helen, Felicity took on some of the responsibilities and joined the FUSG1 representing Unit F. Although she was fearful of this new role, she was determined to rise to the challenge.

The SIS implementation created an overwhelming amount of information that had to be learned for the Unit T functions. However, Unit T's functions were unique and they relied on Unit F management who was part of the SIS implementation team to learn and share the information. Unlike other units that received function specific training from internal implementation sub-team during the implementation, Unit F received function specific training from the vendor consultant. Although Unit T's functions were unique, they were inter-dependent with other units' functions. Thus, Felicity felt the FUSG1 was beneficial in serving as communication and support tools. Unit T also relied on an external FUSG to share best practices for the SIS Unit T functions since it was a system used within the university system.

Since joining the FUSG1, Felicity appreciated the inter-connectedness among all the offices and the collaboration the team had demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university.

Upon Felicity's reflection, teamwork within the unit stood out for her during the SIS implementation. In addition, Felicity thought that the most important thing in

supporting her adoption and use of the SIS was the support of technical staff. In addition, the SIS office staff resolved issues to ensure the SIS Unit F functions were working properly.

Felicity affirmed the importance of leadership support from Unit F management during the SIS implementation as well as subsequent upgrades in order for staff to have a smooth transition. Overall, Felicity declared that the implementation was a positive growing and learning experience.

CHAPTER 6

TEXTURAL AND STRUCTURAL DESCRIPTIONS

Criteria Profile **Staff experienced the SIS implementation and upgrades that are** **non-legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Helen's Textural Description

Feelings Generated toward the Mandated Change

Helen was hired to assist in implementing the Unit F functions at Big U because of her prior experiences in system conversions; thus, she looked forward to helping with the transition.

> *For the implementation I was very positive and I like change. I came in not that long prior to the conversion so I wasn't married to anything here at Big U.*

Helen was glad about the mandated change and that the university put in place an implementation team structure to ensure each unit's time frames and targets was met.

> *I found that the team was very supportive and helpful. I felt like the structure, the set up and the commitment of the people on the team was very good but not so much with the staff, I found, in Unit F. Unit F had a ways to go to get on board and go live with SIS. So I had to work through a number of issues especially making decisions quickly and figure out what's needed to be done in Unit F in order to go live and meet our target. And there was some resistance to it and as I said last time, one of the things that was very helpful to me was that the implementation team stuck with the time frames and the goals and so now we had*

> *to do this because the preference would have been to let it slide and set other longer term goals.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Helen felt the negative feelings and resistance generated toward the mandated change from Unit F's management and staff were because of the need to change current procedures.

> *One of the biggest changes that the SIS did for us, for our unit was it changed a lot of procedures. Not, you know I've seen this a lot with conversions, not necessarily because of the new software, although some procedures had to be changed because of the new software, but more so because things were so antiquated. The way things were done was so antiquated, changes had needed to be made but the conversion prompted a lot of things, a lot of thought and it forced a lot of change too. And there was some resistance to it*

Staff Attributes Contributed to the Success of the SIS Implementation

Helen was hired six months before the SIS implementation went live to ensure Unit F would go live on the scheduled target dates successfully. She was also responsible for ensuring Unit F had the needed support for SIS Unit F functions to work properly.

> *My experience was that I was hired specifically to assist with the implementation for Unit F. And I started about 6 months before the go live date so it was sort of a, well I have very good experience doing conversions and implementing new software for an organization. And so I had to quickly become familiar with the product and the business. I could see that void and I tried very hard to fill that void because you have to go through the change, there is no choice within the organization. The change is happening, the change is inevitable and you have to help the staff to get through it. And it had to be a positive experience in order to accomplish what you need to so I tried very hard to fill that void. We got there, we were successful. You know we did go live on the scheduled target date.*

At the university level, Helen felt that the implementation team leaders selected to lead the change efforts were key for the success of the SIS implementation because they were willing to work hard and were committed to the SIS implementation.

> *We were a good team, we had good people. I don't know exactly how the people*

were chosen. They were people that were already in place and they were the associate directors pretty much chosen to lead their units and to be on this team and really it was a team that gelled well and a lot of it has to do with we were fortunate that we had those people. They were people who were willing to do it and they were committed to do it. They were interested to do it. That in a way is luck in some respects. And we were lucky that we had that group. And I think as far as our leadership, the co project leaders were good at leading that type of project. They provided project leadership. There were weakness there but I think that they were good at giving the team directions and some milestones so that was a good mechanism. I mentioned the programmers and the technical support that was absolutely key also.

Communication

Helen thought that the primary face-to-face communication used to channel information about the implementation during implementation meetings was effective.

Hmm, the meetings, we had good communications, the regular meetings where we reported back as I recalled, to the larger group so we went off and did our thing with our offices, in other words, our departments and came back and said here's where we were. We had to develop our own individual plan for our unit. We had to report back where we were, what our issues were, what hurdles and what support do we need and then that team provided you know pretty much was able to…the team was probably a good filter cause it would hear those things out as far as what we need and a good way of hashing out what were the things really needed.

Functional Users Support Group

Because of the resistance of the Unit F staff during the implementation, Helen relied on the SIS implementation team to keep her on track and to move her unit forward.

So in a way the SIS implementation team was kind of my refuge (chuckle) for keeping my sanity and keeping it on track.

The SIS implementation created an overwhelming amount of information that had to be learned for the Unit F functions. Although Unit F's functions were unique, they were inter-dependent with other units' functions. Thus, Helen felt the FUSG1 was beneficial in serving as communication and support tools.

Yeah, like FUSG1, was definitely a key and still I was very glad that the university

> *still does that and you know not as frequently, we did it weekly and then bi-weekly and now it's monthly. But we kept saying that I don't know, do we need to meet! But yeah I think that we did meet every week during implementation and the upgrades, we did, I think version 7 we did a mini implementation again. We always have a designated representative from every department who is the go-to person for the technical side, what would you call it, guru, functional technical aspect of the university, administrative technical person, that come together with the group to discuss larger issues and to plan and have target dates, we still continue to do that with upgrades. The purge process, any major processes or functions that we have to implement or perform, we brought that same team back together and you know the team evolved definitely that there were people who left but new people came along but you always knew that there was that core. Everyone knew who the person was that they can go to. You know when you get back to your office you can pick up the phone if I have a specific issue with Unit A, I know exactly who I need to call. So I think still it's very important that you have that.*

Training

Helen stated that the Unit F management was responsible for the Unit F implementation in learning and building the SIS Unit F functions, documenting new business processes for the new system, and making sure Unit F staff received appropriate training from the vendor consultant.

> *Functions specific, yeah, and that was very key training that was provided by the vendor, so that was provided by an external expert, because there wasn't an internal expert that could provide it so the external training expert came in and was very important. That was a very important mechanism for the office.*

Team

Upon Helen's reflection, teamwork from the implementation team stood out most for her.

> *The most positive thing for me I think is the implementation team. I think we formed lasting relationships, positive, supportive working relations even after the implementation. I think I said last time people were pretty well committed. They were pretty sharp, you know, they knew what they needed to do and that carried on after the implementation that the team members still have that support. We kind of have gone through that together and we knew each other pretty well and that carried over when we moved on to other things. Yeah, just knowing each other and knowing who to contact if I needed something or if I needed to let off some steam, I guess. You know that there was a trust I think that we've built*

among ourselves and the camaraderie was great. I think when you work on a project for a long term where you know there were stresses and challenges and you work through those together and you do have that bond.

In addition, Helen felt the SIS implementation brought on positive changes within Unit F and staff began working as a team to improve processes.

I think that one thing that started happening for whatever reason; maybe the SIS did bring about some positive changes, we went through the change and we were not going to settle for status quo, the attitude in general in Unit F started to change. It was painful, it was a painful change cause what happened was then we started to get these little cliques. There were the people who wanted to continue to be negative and it was hard for the people who wanted to move on and wanted to try to be more engaged with what was happening. But eventually that negativity got weeded out. It moved on and they found out that it was not going to work that you are going to be held more accountable and your attitude affected the possibilities and just started to talk about things like that. But that was years afterward. But I think that the implementation and the big changes that we went through was the foundation for this process to get started of how can we improve and how can staff be more positive about their jobs and be more empowered. If something doesn't make sense that they are doing, they can say to management that they can think of a more efficient way of doing certain things. It was the seed, the implementation of the SIS, was the beginning of, you know, it weeded out who was going to be on board and who wasn't going to be on board. We moved forward with getting on board.

Critical Support Contributed to the SIS Adoption Process

Helen thought that the most important thing in supporting staff toward the adoption and use of the SIS was the support of leadership.

I think that would be having the support of your boss and I think I would have answered it differently before I started working at Big U. Definitely you got to have the support of people above you because it's so huge and because it's so much change and you've got to be able to make decisions to do some things that some people are not going to like it. They are going to complain. So you've got to have that support of your boss. And they need the support of their boss. I would say by far that was the most important and there are other important things but if you don't have that, it takes everything 10 times longer.

Leadership

During the implementation, Helen stated that leadership at the Unit level must

support the change efforts and be able to make decisions in order to move forward in the implementation process.

> *Leadership's united front and their support is the most important thing. There was a time when I thought I couldn't do this because I felt like I did not have the support of my immediate boss! And it was more complicated than that. The then Director was supportive of what we needed to do but wasn't supportive if someone complained about it or if someone said I don't want to do that then it was alright that they don't want to. And I also had to be more patient with the whole decision making process. I had not been in an environment or worked with a person, I am referring to the then Director, who had such a difficult time making decisions. Because of the new system they had to make some changes. The system forced them to. But I think it was more the change of management. The staff really didn't change until the then Director left.*

At the university level, Helen thought the university upper administration did a good job in providing managerial support during the implementation to ensure the success of the implementation team leaders that were selected to lead the change efforts.

> *I thought they were very good at leading that just providing managerial support as far as well I remembered the post-implementation sessions, I remembered we talked about change, about all the changes that we've been through and how to deal with that. I remember a session on how to give people a negative message but in a positive way. I think that was good that we had that during that time. I think that provided an important element for supporting the SIS implementation team.*

However, Helen affirmed that the university upper administration did not have a long term plan in place to support the SIS after it went live nor did they provide adequate resources for unit offices with unique functions to put in place a much needed functional-technical user to troubleshoot issues as well as to perform testing for upgrades.

> *I felt like although there was good planning and the goals were clear in the more immediate time frame as far as leading to go live of the SIS but longer term goals were not as clear. That's one of the weaknesses of the whole project. I think the longer term goals for the individuals that were involved in the SIS conversion project, their longer term role and functions were not well defined. And I kind of felt that across the team. I think that's because there wasn't a lot of thought into what are we going to do, what are the roles of these people later on. And I can tell you what we wanted it to be was to be like the technical functional users who*

> *supported the product for our offices and build parameters and make sure that the system was working properly or for issues we would be the analyst and we would resolve them. We would be the testers for upgrades and so forth. I became more of a day-to-day operations manager although I still had the responsibility for the technical part and that's because staffing level was not appropriate. They were not where they needed to be and therefore we had to have multiple roles. We didn't have the luxury of just being technical users and supporters for our departments.*

Feelings Generated from the SIS Adoption Process

Helen declared that assisting the highly resistance Unit F staff with a director that had difficulty making decision through the SIS adoption process was a growing and learning experience.

> *Because I had come from a job where I've done many many implementations, the implementation itself and the team, I don't think there was a lot of effect but there was a lot of effect on me in working with the Unit F staff. That's where I really felt a huge impact on me. When I look back at my job at Big U from my time here, what I think about is that this is one of the hardest jobs that I've ever done and that I really learned a lot about myself and I probably changed quite a bit working here. And I think I came into it, probably one of my, I don't know if it was a mistake, maybe just being naïve a little bit, cause I came into it, when I was hired, thinking that the managers were already involved in the process and that they've been coached a little bit on change and were told what their role was going to be and how they needed to help their staff to go along with those changes. And yet none of that had occurred! I tried to look at it more positively in that I learned that I have to be patient; that I need to be more realistic about what could be accomplished and what couldn't be accomplished and I was going to have to be more patient with people and lower my expectations. So it was not an easy thing for me to do. And I also had to be more patient with the whole decision making process. I had not been in an environment or worked with a person, I am referring to the then Director, who had such a difficult time making decisions. So what I learned was that even after we made a decision, it was still open; that all decisions made were always open for more discussions! I just had to learn to deal with that and just take a deep breath.*

Helen's Structural Description

Helen was hired six months before the SIS implementation went live to assist in implementing the Unit F functions at Big U because of her prior experiences in system conversions; thus, she looked forward to helping with the transition. She was responsible

for ensuring Unit F would go live on the scheduled target dates successfully as well as to make sure Unit F had the needed support for SIS Unit F functions to work properly. Thus, Helen was glad about the mandated change and that the university put in place an implementation team structure to ensure each unit's time frames and targets were met. Helen felt that the mandate for the SIS implementation and the clear time frames as well as goals provided by the implementation team made it possible for her to move the highly resistance Unit F along with the implementation. Helen felt the negative feelings and resistance generated toward the mandated change from Unit F's management and staff were because of the need to change current procedures.

At the university level, Helen felt that the implementation team leaders selected to lead the change efforts were key for the success of the SIS implementation because they were willing to work hard and were committed to the SIS implementation. Helen thought that the primary face-to-face communication used to channel information about the implementation during implementation meetings was effective. Because of the resistance of the Unit F staff during the implementation, Helen relied on the SIS implementation team to keep her on track and to move her unit forward. Although Unit F's functions were unique, they were inter-dependent with other units' functions. Thus, Helen felt the FUSG1 was beneficial in serving as communication and support tools. Upon Helen's reflection, teamwork from the implementation team stood out most for her.

The SIS implementation created an overwhelming amount of information that had to be learned for the Unit F functions. Helen stated that the Unit F management was responsible for the Unit F implementation in learning and building the SIS Unit F functions, documenting new business processes for the new system, and making sure

Unit F staff received appropriate training from the vendor consultant. Helen thought that the most important thing in supporting staff toward the adoption and use of the SIS was the support of leadership.

During the implementation, Helen stated that leadership at the Unit level had to support the change efforts and be able to make decisions in order to move forward in the implementation process. At the university level, Helen thought the university upper administration did a good job in providing managerial support during the implementation to ensure the success of the implementation team leaders that were selected to lead the change efforts. However, Helen affirmed that the university upper administration did not have a long term plan in place to support the SIS after it went live nor did they provide adequate resources for unit offices with unique functions to put in place a much needed functional-technical user to troubleshoot issues as well as to perform testing for upgrades.

Helen declared that assisting the highly resistance Unit F staff, with a director that had difficulty making decisions through the SIS adoption process, was a growing and learning experience. Because of Helen's previous implementation experiences, she had certain expectations from management and leadership. However, she learned that she must be patient with different working styles and managed her expectations. On a positive note, Helen felt the SIS implementation brought on positive changes within Unit F and staff eventually began working as a team to improve processes.

CHAPTER 7

TEXTURAL AND STRUCTURAL DESCRIPTIONS

Criteria Profile **Staff experienced the SIS implementation and upgrades that are** **legacy system users and SIS light users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Geena's Textural Description

Feelings Generated toward the Mandated Change

At the beginning of the implementation, Geena stated most staff were apprehensive about the mandated change to the new SIS.

> *When I was in the legacy system, I was a heavy user. The area I worked in, I was a heavy user and I loved the legacy system just like everybody else was. We were all very apprehensive about what was going to happen. I mean it did not seem like a good thing. I had heard horror story from people at another system school. I think they got it first and are not happy about it at all so we were just dreading it.*

However, because Geena changed position and went from a SIS heavy to a light user, the mandated change did not impact her.

> *I started out as a heavy user in the legacy system in 1999 and before so the change to the SIS coincide with my change of position because when I changed position I went from a heavy user to a light user so I didn't really have a big problem with the changeover.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Geena felt that the new SIS was difficult to use because of the various screens.

> *It was, you know, difficult. It appeared to me to be very difficult. It was very confusing and it seemed cumbersome and troublesome but since I was not using it heavily, it didn't present that big of a problem. . I remembered thinking this is just crazy because in the past all the information is on one screen and now we have to go to 14 screens for the same information and it's very difficult to remember all the letters But because I don't use it that much.*

In addition, Geena compared learning the new SIS to learning a new language. She felt that the new SIS was very different and non-user friendly.

> *I guess well I keep thinking about these silly letters, the form names! I just could not keep them in my head. I don't seem to be able to speak that language and I had to go back to my book and I keep that book cause I guess I don't use the SIS very day. What stood out most for me is the non user friendly and how different it was again and how sorry I felt for those heavy users for having to go through all of that and having to carry on their job at the same time.*

Staff Attributes Contributed to the Success of the SIS Implementation

Geena thought the having good training and accessible SIS support staff in place contributed to the success of the SIS implementation.

> *Oh I think through training I went to, through the in-house trainer and it was, as my colleague and I talking about it, it was mostly just how to navigate through. The trainer did a good job. Actual I have her number on speed dial (laugh) practically because whenever I have a problem, she was very good to be right there and also you. I mean you were very helpful, several times when I was in a pinch. I remembered one particular, I don't know whether you remembered, but we were going to have to go through this sickly and complicated retrieval of some information, and you told us how to just do it in one step and it knocked down everything we had to do.*

Communication

Geena thought that the combination of receiving information via email from the university and the face-to-face communication to channel information about the implementation during staff meetings within their own unit was effective. In addition, the

SIS office was only a phone call away if she needed information about the SIS.

> *I think all the communication came from email or came through departmental meetings. We discussed a lot, you know, it's coming, it's coming. You know the sky is going to fall when it comes (chuckle) and we are all kind of apprehensive about it but I think the communication was good. And I can always pick up the phone and call the SIS office staff and you.*

Functional Users Support Group

Since Geena worked in a unit that only need to occasionally view data in the SIS, her unit did not have the support of a functional users support group. Instead, she relied on the support from the SIS office and the information provided from the SIS office website in using the SIS.

> *Yes, I never felt like I could call anybody. Like I said I worked away from the department that I belong to for the last 2 years so I did not have any contact. Because of the location of my office, I very rarely go to my department or came down to the main campus so I didn't really have anybody and so the SIS staff were my main resource. I think if I've gone to my department, most probably there were people there that were very good at it and could have helped but I didn't need it. The SIS office website, that was very helpful.*

In addition, she relied heavily on her colleague who was a heavy SIS user.

> *My colleague and I went through the system transition together so it was interesting to hear her experience. But it was good to have a colleague who is a heavy user so I would call her, you know, how do I do this and where do I find that. So she was also a resource for me when I was going through this.*

Training

Geena went through basic training offered by the SIS office. She appreciated the trainer's positive attitude and felt the training eased her apprehension about the new SIS after she learned more about it.

> *But once you go through the training, it didn't appear to be as terrible as it could be and I think it was a lot better and it was a good thing and that because the SIS staff trainer did a good job. And a good attitude, she was very positive and assured us that it would be OK. It's not that difficult. I think that's important when you are a trainer.*

Team

Upon Geena's reflection, because she was in a standalone unit, she felt it was hard to be isolated and not have anybody within the same unit to go through the SIS adoption process.

> *I was not involved in any of the changeover. By then I think I was stand alone, I was running a unit so I was not involved with any of the departmental discussions about those change with the people in the department. I was so isolated but that has nothing to do with the SIS. Well that I don't have anybody that are going through the same thing with me. I was by myself and didn't have anybody to talk about it. And that's probably my heavy user colleague became my friend (chuckle).*

Critical Support Contributed to the SIS Adoption Process

Geena thought that the most important thing in supporting her adoption and use of the SIS was the accessible support from the SIS office to answer questions and provide training.

> *Well having somebody to call. Yeah the telephone number that I have on my rolodex. If something goes wrong, I can call. But anyway it was good that the SIS office staff did the training and then the same person was the contact because I can then said I remembered this from your training and it's not working or whatever or how do you do this. So she was a big help. And always willing, I mean, she was always helpful and I never felt like she didn't want me to call. She was always there to help. Always! There's never been a time that I weren't able to get what I needed.*

Leadership

Geena recalled the mechanisms the university had put in place to help facilitate the transition from the legacy system to the new SIS were training, SIS support from the SIS office, and department meetings to communicate information.

> *The university had put forth training in order to help facilitate the transition or users and the department meetings provided communication. The impression I got is that the SIS office is put in place so the users have a place to call if they have questions. Like I said I have the SIS office staff on my rolodex and I know where your office is.*

Feelings Generated from the SIS Adoption Process

Geena was proud of herself because she was able to learn the new SIS with the help of the documentation provided by the SIS office.

> *Well, I mean, I survived. I guess I was pretty proud of myself that I was able to figure it out on my own and I don't have to depend on anyone else as long as I have my little book, the bible, SIS bible, I was OK.*

Geena's Structural Description

At the beginning of the implementation, Geena stated most staff were apprehensive about the mandated change to the new SIS because the new SIS had a bad reputation among the system schools. In addition, most Big U staff loved the legacy system and did not want to change. Although Geena was a long time employee at Big U and was a legacy system user, because she changed position and went from a SIS heavy to a light user, the mandated change did not impact her greatly.

Geena recalled the mechanisms the university had put in place to help facilitate the transition from the legacy system to the new SIS were training, SIS support from the SIS office, and department meetings to communicate information. Geena confirmed the importance of having these mechanisms in place to achieve the SIS implementation success.

Geena went through basic training offered by the SIS office. She appreciated the trainer's positive attitude and felt the training eased her apprehension about the new SIS after she learned more about it. However, Geena compared learning the new SIS to learning a new language. She also felt that the new SIS was very different and non-user friendly. In addition, Geena affirmed that the combination of receiving information via email from the university and the face-to-face communication to channel information

about the implementation during staff meetings within their own unit was effective.

Since Geena worked in a unit that only need to occasionally view data in the SIS, her unit did not have the support of a functional users support group. Instead, she relied on the support from the SIS office and the information provided from the SIS office website in using the SIS. She commented the SIS office was only a phone call away if she needed information about the SIS. In addition, she relied heavily on her colleague who was a heavy SIS user as a resource.

Upon Geena's reflection, because she was in a standalone unit, she felt it was hard to be isolated and not have anybody within the same unit to go through the SIS adoption process. Overall, Geena was proud of herself because she survived the transition and she was able to learn the new SIS with the help of the documentation provided by the SIS office.

Katie's Textural Description

Feelings Generated toward the Mandated Change

Katie stated she was a light user in the legacy system and the mandated change to the new SIS did not impact her.

> *I mean I started working here in 1997 and our department at that point was very small so in the legacy system I was just looking up information and in SIS I'm doing a lot more. So it's new to me anyway and it wasn't like I had been here, you know, 20 years and I knew the legacy system and now they wanted to introduce something new and I'd only been here a little while at that point so it's OK to change the system and at that point I wasn't doing a lot in the legacy system.*

Even though the transition from the legacy system to the new SIS was a mandated change, Katie felt she used the SIS out of choice because she was excited about the new SIS and wanted to learn to use it.

> *I was excited about SIS and the newness and the new feel and look of all of that.*

> *I use it out of choice, I mean not only out of choice but out of necessity and that's all I have to use so I don't have a choice but to use it. I might as well go ahead and use it and like it or else it'll be a fight every time I go in to try to find something.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Katie found she liked the new SIS interface better than the legacy system; thus, she easily adjusted in using the new SIS.

> *I remembered telling my boss that I enjoyed working in SIS and why I remembered that, I don't know. But I remembered telling her that I liked SIS a lot better, probably because it's cleaner looking, I mean, just visually, cleaner from what I remembered from the legacy system and because I was not married to the legacy system. It made it easier for me.*

In addition, Katie compared learning the new SIS to learning a new language which she noted could be difficult to learn for some users.

> *I mean it's second nature to you and people in your office and even to the people who use it every day so it's like oh dadada, I mean it's a whole another language where somebody like me it's like OK so where is that and you know once I get to the screen what do I do now that I'm here and I mean I'm comfortable enough where I could figure it out for the most part but you know you may have some people that are not comfortable and I mean that's not a problem of the SIS office, that's just the users just need to get in there and just do it.*

Staff Attributes Contributed to the Success of the SIS Implementation

Katie felt it was important to provide good customer service and help students by learning how to use the SIS and provide them the information that they need.

> *It makes for a easier day for everyone involved because usually when you have, in this environment, a student comes in to see you, 9 times out of 10 is because there is a problem. So the last thing you want to do is add to that by not being able to provide an answer. But then if you have to fiddle with the SIS, that just makes it that much worse, to me. And I can only go by how I would feel walking into someone's office looking for an answer and now it's like you don't really know what you are doing so I don't know if the answer is going to be right. So I don't want to come across like that and so knowing the SIS as well as I do, which I don't think like I'm expert but I don't think I give you the impression of well she doesn't know what she is doing which automatically put someone at ease…which is important.*

Communication

Katie thought that receiving information via email from the university to channel information about the implementation was effective.

> *Oh yeah. I think they gave plenty of notice and you know there was ample time for people to take different classes So I think the university is pretty good with, you know, getting the word out. There was always an email, there was always training classes. Although I don't remember specifically, you know, the content of the email, I know there had to be lots of opportunities for people to come to class and for people to ask questions, only because of the magnitude of what was getting ready to happen.*

In addition, Katie commented on the clarity of the communication about the SIS was important especially for light user.

> *The clarity of the communication stood out for me. Often times when people are involved with a particular, well, something like the SIS, they talk their own language which you had to be very careful when you have novice in the room to make, to bring it down to my level because I don't speak SIS. So the communications that I received had been on that level. It hasn't been for the expert users only so it's like what is this saying, which would also be a turn off because if from the first sentence I don't understand it why am I going to keep reading. So the fact that it is user friendly read is important.*

After the implementation, Katie found the SIS newsletters provided by the SIS office were helpful in keeping up with information needed for using the SIS.

> *I think your newsletters, which I haven't seen one of those in a while, are very helpful. Because sometimes there might be an update on a form or aside from the fact that SIS is going to go down, then I mean, I do need to know it, but that's not why I read the newsletter. I need a newsletter to tell me what's going on. So I look forward to seeing those newsletters.*

Functional Users Support Group

Katie worked within one of the colleges with a well contacted group of colleague that had similar job functions. They formed an internal FUSG to support each other with their day-to-day job functions which included using the SIS.

> *I think that there are enough opportunities for me to go to a support group if*

> *that's what I wanted to do. Just that there is a group of people in my immediate environment that may be experiencing some of the same thing that I am and I probably don't have to wait for the SIS office to call a forum or something like that. We meet on a monthly basis or I could pick up the phone and call one of my colleagues here at the college.*

Training

Katie went through basic training offered by the SIS office as well as function specific training from Helen with entering data related to Unit F. She affirmed that the training she received was good.

> *I have to go to class for everything because I was the catch all person for here. I learned the different screens and just an overall of what this new system was going to look like. Yes, and learned how to use what I needed to use in SIS. And at that point I also was working closely with Helen from Unit F because that was with the data that I had to put on the students' records. Training was very good. I mean I still refer back to some of those notes, even though we have gone to different versions. I mean pretty much basically it's still the same so I would refer back to those notes because at that point I was able to do, click this, click this, very, you know, specific notes that I was able to take in the training like that. So that training really worked for me.*

Team

Upon Katie's reflection, she felt it was good to have a support group so she did not feel isolated and was able to share ideas and information. The group made it easier to go through the SIS adoption process.

> *That I'm not the only one going through it and that I'm able to share ideas and get ideas and learn new things about the SIS.*

Critical Support Contributed to the SIS Adoption Process

Katie thought that the most important thing in supporting her adoption and use of the SIS was the accessible support from the SIS office to answer questions and provide training.

> *So I think people do know that there is an office that you can call and you're not calling the university's help desk where you just get lost in a black hole*

> *somewhere. So that makes a difference too that there is a specific office and hopefully the person that's answering the phone can answer your question cause I don't need you to give me a job number or tell me somebody's going to call me back later. I'm sitting with the screen up here now and I need to know how to do this now.*

In addition, Katie thought it was important to have accessible and just-in-time hands-on training.

> *I think the training, the access to training when one needs it, not just online training, but hands-on; being able to offer these hands-on sessions as many time as you can especially in a university setting like this.*

Moreover, to keep the SIS running smoothly after upgrades, it was important to perform testing so end users would not be impacted.

> *I mean whenever you hear there's an upgrade, I mean, so it's like, oh here we go because you know that there is going to be a bug, some kind of bug, and usually more than one. And sometimes they may not be apparent to you all until people really really get into the nitty-gritty of it or that problem may not have come up before. I don't care how much testing you do. Here comes somebody with something new and different and it throws the whole thing off. So I always am a little apprehensive but I think you all have done well with the end user in that you've done a good job of testing.*

Leadership

Katie was satisfied with the mechanisms the university had put in place to help facilitate the transition from the legacy system to the new SIS. She thought the SIS office had provided adequate training, SIS support, and communication about the SIS.

> *Yes, yes I'm very satisfied. I mean like I said before, you know what's coming and when it's coming. Now it's up to the user to take advantage of the classes that are being offered and usually there are enough of them that you could work it into your schedule so I'm very satisfied.*

Feelings Generated from the SIS Adoption Process

Katie felt that she had a positive experience in adopting the SIS and it helped that she was not alone in this transition. She was able to use the knowledge she learned from

training to better assist students and perform her job effectively.

> *The experiences are positive usually because I get the answers to specific questions that I might have. It's also a feeling of not being alone because you are not the only one who has to figure how to do this. There is a room full of people that are trying to figure it out as well. But, you know, more so just a feeling of knowing that there is some real live support there. I think I do a more effective job. I am able to with regards to doing some student information look up stuff, if a student was in my office, I am able to go right to it rather than well, let me see what that screen name's going to be and where do I have to go to find this out. I think it helps me to do a better job because of the training that I've had. And also I think like with anything, practice, you know you just hopefully are going to get better at it.*

Katie's Structural Description

Katie worked at Big U for a couple of years before the SIS implementation and she was a light user in the legacy system. Even though the transition from the legacy system to the new SIS was a mandated change, Katie felt she used the SIS out of choice because she was excited about the new SIS and wanted to learn to use it. In addition, Katie felt it was important to provide good customer service and help students by providing them the information they needed. Her customer service oriented attitude provided her the incentives to attend training to learn the new SIS.

Because her job responsibilities expanded around the time of the SIS implementation, since the job functions were new, learning them in the new SIS was fine with her. Katie found she liked the new SIS interface better than the legacy system; thus, she easily adjusted in using the new SIS. However, Katie compared learning the new SIS to learning a new language which she noted could be difficult for some users.

Katie was satisfied with the mechanisms the university had put in place to help facilitate the transition from the legacy system to the new SIS. She thought the SIS office had provided adequate training, SIS support, and communication about the SIS.

Moreover, Katie affirmed having good training and accessible SIS support staff in place contributed to the success of the SIS implementation. In addition, Katie thought receiving information via email from the university to channel information about the implementation was effective. Furthermore, Katie commented on the clarity of the communication about the SIS was important especially for light user. After the implementation, Katie found the SIS newsletters provided by the SIS office were helpful in keeping up with information needed for using the SIS. In addition, to keep the SIS running smoothly after upgrades, it was important to perform testing so end users would not be impacted.

Katie went through basic training offered by the SIS office as well as function specific training from Helen with entering data related to Unit F. She affirmed that the training she received was good. Katie added that it was important to have accessible and just-in-time hands-on training as well as accessible support from the SIS office to answer questions

Katie worked within one of the colleges with a well contacted group of colleague that had similar job functions. They formed an internal FUSG to support each other with their day-to-day job functions which included using the SIS. Upon Katie's reflection, she felt it was good to have a support group so she did not feel isolated and was able to share ideas and information. The group made it easier to go through the SIS adoption process. Overall, Katie felt that she had a positive experience in adopting the SIS and it helped that she was not alone in this transition. She was able to use the knowledge she learned from training to better assist students and perform her job effectively.

CHAPTER 8

TEXTURAL AND STRUCTURAL DESCRIPTIONS

Criteria Profile **Staff experienced upgrades only that are** **non-legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Meryl's Textural Description

Feelings Generated toward the Mandated Change

Meryl was hired right when the initial SIS implementation went live during Fall 2002. She was an SIS user from her previous institution so she came with SIS knowledge. Meryl observed that her colleagues had no problem using the SIS in general.

> *I started at Big U in May 2002, in the department as a Unit B staff. And I was lucky that the university I came from already had SIS. So when I came, I knew that we were going to SIS so I brought all of my manuals and I brought all of my favorite screens list that I knew I would need as a Unit B staff. So basically I just had to have the basic training to get into the system which was the same thing at my prior institution. So I felt like that I had a lot of knowledge coming in with able to speak with other Unit B offices and they didn't seem to have any trouble with the SIS.*

However, Meryl felt that she was impacted by the mandated change because of the negative feelings her colleagues had toward the new SIS and the unwillingness to use it to perform their jobs.

> *I think the obstacle when I first started was because I knew SIS and I knew what it could do and when I came here that first you have to listen to the negativity. I was using the SIS and just trying to work with people who were not ready to use the SIS but were forced to use the SIS. The people who were here didn't want to implement this system and you have to get pass that to actually get your job done and get help.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Meryl commented that her colleagues who were legacy system users did not like the SIS because it was different and harder to use. Furthermore, her colleagues had to adjust their processes in order to make them work in the SIS.

> *That they loved the legacy system, that it was so much easier to use. Again the whole screen thing that you had to do more on other screens than what you could do in the legacy system. I know that they didn't like it because it was different than the legacy system but I had no prior knowledge of the legacy system cause I didn't work in it. I remembered talking to the Unit A staff at the time and needing to do certain things and there were a lot of restrictions in SIS that they didn't have in the legacy system. That was a problem and now they are not problems because we figured all of that out but at that time it was just very difficult to figure out how to set up certain functions and information for them to work right.*

Staff Attributes Contributed to the Success of the SIS Implementation

Meryl reflected that the original Unit A function implementation sub-team members became FUSG2 members and as they retired, they were still committed and willing to share their knowledge with the team.

> *You know we are all lucky that they decided to retire and not just leave because like this person whom used to work here, of course, she just left, you know, and so she wasn't there for me to ask questions and I learned that after the fact that our Unit A staff in the college did a few things and this other person did a few things and it would have been great to have both voices and get this person's take on things. So when somebody just leaves and they are not accessible anymore, I think that's the day I fear that they are not just retired, they are gone! And they are not going to access email and they are not going to return phone call.*

Meryl credited the commitment of the Unit A function implementation sub-team members for creating a manual as a training tool for Unit A staff. However, Meryl

worried that the manual would need to be updated with the upgrades and the current FUSG2 members would not have time to do so.

> *And I think that I remembered when Unit A team lead left and we were all really nervous about that and then what we got after that, after she left and all the knowledge she had on how to do processes went away but somehow we managed. You know somebody will fill those roles, just being really nervous and scared but I remembered when I first started that job, thank God for that manual that was in my office, that the Unit A implementation sub-team created when we first went to the SIS because that was my saving grace in addition to all of the Unit A staff in the other colleges that were there already because their knowledge supplemented. But how can you decide on who's going to write this information down because we are already so busy. You know, how do we go back and do the processes that we already have. Do we just do this as a group and update that manual? You know when do we have time?*

Communication

Meryl commended communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff.

> *Yes, that's what good about our college that we communicate with each other and we pass along information that we have that it just doesn't stop. Like if I received something from the university that is relevant to the departments, I am going to pass that along. So they get a lot of email from me so they won't be out of the loop. It was the same thing when the previous person was here and from when the Unit B director was here so they kept us informed on what was going on.*

Functional Users Support Group

As one of the FUSG2 members, Meryl stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS Unit A functions.

> *I have to agree with Oprah just being able to talk to other users in other colleges and these are great to talk out the issues and me being in a department at the time of implementation, that was different. I was in this like cave by myself and just focus on my department. The flow of communication and having a network of people that you can go to that can actually speak your language was good.*

Training

Since Meryl came with SIS knowledge, as a Unit B staff, she only attended the required general SIS training provided by the SIS office in order to receive access to the SIS. However, when she became a Unit A staff, she did not receive any function specific training from her college because there was no counterpart within her college to train her. She trained herself with the help of the manual created by the Unit A implementation sub-team as well as by seeking help from the FUSG2 members.

> *Now 3 years later, I came in as an Unit A staff for the college and that was different because it was great having all the Unit A staff from the other colleges help you out if something, you know, is questionable. But basically I taught myself by using the manual and I didn't have one-on-one training, you know, like staff from the other colleges would have had coming in having those counterparts, and there were no counterparts in my college to really asked. So I trained myself on that. So that was a little difficult navigating but if I hit a road block, I mean, I can go to the other colleges and ask.*

Team

Upon Meryl's reflection, she agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices created a conducive team environment for her during the SIS implementation.

Critical Support Contributed to the SIS Adoption Process

Meryl observed that when the legacy system access was terminated was when staff finally started to use the SIS. Because of her previous experience in the SIS, Meryl shared information about the SIS with her colleagues to make their transition easier.

> *I think that when they finally cut off access to the legacy system, I mean, I think it was done in stages and I think that force a lot of the negativity, you know, to just die down. I mean it didn't go away but it forced people to use the SIS when they couldn't go back and look anymore. And so that really helped. I remembered August that it just seemed like everything just got better in my department. I'm not sure about the Unit B main office but just trying to use the SIS and trying to communicate and talking about the screens and sharing information about the*

> *screens, cause I would share screens that they didn't know about that I would say hey why don't you check out this screen and this may help what you're looking for so I think it just got better once the legacy system was cut off.*

Leadership

Meryl commented it was frustrating that the upper administration within the colleges did not understand the complexity of the SIS; thus, staff did not get the needed support from them.

> *Because the upper and I'm talking about upper as in the deans, associate deans, whoever's below them, they have no clue about the SIS, and they care less if you have any complaint about the SIS and how hard it was, that's what I liked least about it. I don't know how supportive they are of us in SIS because people actually control the money don't know about SIS. Whatever obstacles you are having, well you are eventually going to work that out and not to include them in the dialogue…just to be blunt about it.*

Feelings Generated from the SIS Adoption Process

Meryl declared that the implementation experience was a positive one because the technology made her job easier. In addition, she was proud of the accomplishments she achieved with the SIS adoption and was able to speak the technical language.

> *The SIS of course has made my job easier but every time we have an upgrade or every time I learned something new about the SIS, I'm more comfortable with my job and I like being here and the SIS has a language unto itself and when you can start understanding people like Winnie and communicating you know, I mean the whole tech language and you can talk to the technical staff and you know that's just awesome to me. That hey I can understand this language that has come from the SIS. And I can actually have an intelligent conversation explain what's going on!*

Meryl's Structural Description

Meryl was hired right around the SIS went live. She was an SIS user from her previous institution so she came with SIS knowledge. Meryl felt that she was impacted by the mandated change because of the negative feelings her colleagues had toward the new SIS and the unwillingness to use it to perform their jobs.

Meryl commented that her colleagues who were legacy system users did not like the SIS because it was different and harder to use. Furthermore, her colleagues had to adjust their processes in order to make them work in the SIS. Meryl observed that when the legacy system access was terminated was when staff finally started to use the SIS. Because of her previous experience in the SIS, Meryl shared information about the SIS with her colleagues to make their transition easier. However, Meryl observed that her colleagues had no problem using the SIS in general.

Since Meryl came with SIS knowledge, as a Unit B staff, she only attended the required general SIS training provided by the SIS office in order to receive access to the SIS. However, when she became a Unit A staff, she did not receive any function specific training from her college because there was no counterpart within her college to train her. She trained herself with the help of the manual created by the Unit A implementation sub-team as well as by seeking help from the FUSG2 members.

Meryl credited the commitment of the Unit A function implementation sub-team members for creating a manual as a training tool for Unit A staff. However, Meryl worried that the manual would need to be updated with the upgrades and the current FUSG2 members would not have time to do so.

In addition, Meryl reflected that the original Unit A function implementation sub-team members became FUSG2 members and as they retired, they were still committed and willing to share their knowledge with the team.

As one of the FUSG2 members, Meryl stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS Unit A functions. Upon Meryl's reflection, she agreed with FUSG2 that the cooperation

and the willingness to help each other among various unit offices created a conducive team environment for her during the SIS implementation.

Meryl commended communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff. However, Meryl was frustrated that the upper administration within the colleges did not understand the complexity of the SIS; thus, staff did not get the needed support from them.

Meryl declared that her implementation experience was a positive one because the SIS made her job easier. In addition, she was proud of the accomplishments she achieved with the SIS adoption and being able to speak the technical language.

Nicole's Textural Description

Feelings Generated toward the Mandated Change

Nicole was hired right when the initial SIS implementation went live during Fall 2002 and she observed that her colleagues had no problem using the SIS in general.

> *I also started in 2002 Fall. I was a staff in the Unit B office in one of the colleges. I was never introduced to the legacy system but some of the other staff were still using some screens from the legacy system in my office but I came in learning the SIS, SIS navigation and different screens and things. So I didn't have to go through the implementation of it and if I have questions, I was in the same office as Angelina who was on the implementation team and she was always readily available to answer any questions.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Nicole commented that her colleagues who were legacy system users did not like the SIS because it was different. Furthermore, her colleagues preferred to work in the legacy system because they were more familiar with it.

> *The legacy system to me was like foreign abstract that people in my office talked about. Like Meryl, people still have access to it but I was only on the SIS. I saw*

> *screens when other people had them up and I think that caused a little confusion too because people did not want to go to the SIS. They were very comfortable with the legacy system and knew their functions in the legacy system so having the 2 of them going a little while was a little confusing to some people in the office. And I'm sure it probably prohibited some progress or growth..*

Staff Attributes Contributed to the Success of the SIS Implementation

Nicole credited the commitment of the Unit A function implementation sub-team members for creating a manual as a training tool for Unit A staff. In addition, she relied on the assistance from FUSG2 members.

> *You know and I remembered before I even took this position, I went to Meryl's office and like what do you have that I can use and when I go over to the college, I was asking for manuals and things like that that I can take with me.*

Nicole commented that she agreed with Oprah and Meryl that the manual created by the initial Unit C implementation sub-team needed to be updated that reflect current polices in order to better serve as a training tool for new Unit C staff.

> *Well when you initially asked the question, my first thought was no, listening to Oprah and Meryl's answers I will say I agree with them. Especially with Queen starting and how the manual is several years old, I'm trying to update the process in the unit.*

Communication

Nicole stated that she agreed with Meryl that communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff.

> *The contacts were Unit C staff within the college. So I think communication is the same thing for me as Meryl's.*

Functional Users Support Group

As one of the FUSG2 members, Nicole stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS

Unit A functions.

> *I'll call Meryl in a minute, like so how do I do, what happens if, and what does this mean, so you have to use your resources and follow those guidelines, follow those processes in order to complete exactly what it is that you are trying to complete. So in that function, yes, I think you have a touchable person, at least for Unit A staff, you have a touchable person, sometimes it is the person who's been here the longest that you know you can call on and ask for help for specific functions.*

Training

As a Unit B staff, Nicole attended the required general SIS training provided by the SIS office in order to receive access to the SIS. In addition, she received Unit B function specific training from Angelina However, when she became a Unit A staff, she did not receive any function specific training from her college She trained herself with the help of the manual created by the Unit A implementation sub-team as well as by seeking help from the FUSG2 members.

> *I have Angelina who trained me on the SIS because she was on the implementation team. She knew the SIS like the back of her hand so anything that I needed for my job were fine and if she had to help somebody else in a different job, she was right there too to serve, I guess, as a leader or trainer for the SIS. I totally agreed with I3 that from a Unit A staff stand point about just using your colleagues as resources. But initially when I was in Unit B main office, I thought that the online navigation tools, I thought those were very helpful. Between those and the director at that time, if I didn't have one, I have the other, I think that's how I basically survived learning the SIS and those are my tools in learning the SIS.*

Team

Nicole agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices created a conducive team environment for her.

Critical Support Contributed to the SIS Adoption Process

Nicole agreed with Meryl's observation that when the legacy system access was

terminated was when staff finally started to use the SIS.

> *I think that when they finally cut off access to the legacy system, I mean, I think it was done in stages and I think that force a lot of the negativity, you know, to just die down. I mean it didn't go away but it forced people to use the SIS when they couldn't go back and look anymore.*

Leadership

Since Nicole had experiences working in various offices within the college, Nicole realized the important of the guidance of the leadership role and how it could affect staff after she left the college Unit B office.

> *I felt like that I have 3 different experiences cause I was a staff in the college Unit B office, and then I was a department Unit A staff and now I am the college Unit A staff. So I felt like that when I was in the Unit B main office, if I needed navigation or anything, there was the director. When I moved to the department Unit A, I felt like I was a lot more in the dark. and I didn't get an appreciation for the entire system, the software as a whole, until I came to this position. I had no real appreciation for the college Unit A staff until I became one. Well initially once I moved away from the Unit B director, I did feel a little bit lost as far as what the full capabilities of the SIS were and what the software can do. And even when we were doing the beta 8 testing I found more functions in the SIS that we don't necessary use at the university.*

Feelings Generated from the SIS Adoption Process

Nicole declared that the implementation experience was a positive one because the technology made her job easier.

> *I think the SIS just helps to facilitate so many things that I have to do in my particular unit. And to me it's a very user friendly process and it made my job better. It makes my life a little easier.*

Nicole's Structural Description

Nicole was hired right around the SIS went live and she observed that her colleagues had no problem using the SIS in general. However, Nicole commented that her colleagues who were legacy system users did not like the SIS because it was different. Furthermore, her colleagues preferred to work in the legacy system because

they were more familiar with it. Nicole agreed with Meryl's observation that when the legacy system access was terminated was when staff finally started to use the SIS.

As a Unit B staff, Nicole attended the required general SIS training provided by the SIS office in order to receive access to the SIS. In addition, she received Unit B function specific training from Angelina. However, when she became a Unit A staff, she did not receive any function specific training from her college She trained herself with the help of the manual created by the Unit A implementation sub-team as well as by seeking help from the FUSG2 members.

Nicole credited the commitment of the Unit A function implementation sub-team members for creating a manual as a training tool for Unit A staff. In addition, she relied on the assistance from FUSG2 members. As one of the FUSG2 members, Nicole stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS Unit A functions. Furthermore, Nicole agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices created a conducive team environment for her. Nicole also commented that she agreed with Oprah and Meryl that the manual created by the initial Unit C implementation sub-team needed to be updated that reflect current polices in order to better serve as a training tool for new Unit C staff. Since there was a new Unit C staff in her office, she was in the process of updating the manual to reflect updated polices within her college.

Nicole stated that she agreed with Meryl that communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff. Since Nicole had experiences working in

various offices within the college, Nicole realized the important of the guidance of the leadership role and how it could affect staff after she left the college Unit B office. Overall, Nicole declared that the implementation experience was a positive one because the technology made her job easier.

Oprah's Textural Description

Feelings Generated toward the Mandated Change

Oprah was hired right when the initial SIS implementation went live during Fall 2002. She went through a system conversion from her previous institution so she came with system conversion experience from the staff perspectives.

> *I started in Fall 2002 working here and though SIS had been implemented, in my specific job it had not been; so I started as working in Unit B and that part of the system was being implemented and we were several years behind everyone else in my unit. So I started here using the legacy system for the Unit B functions and also manually doing it. I came from a school where we were using another system that had gone through the implementation already so I was used to and ready for an implementation and using the legacy system was like taking 5 steps back.*

However, Oprah felt that she was impacted by the mandated change because of the negative feelings her colleagues had toward the new SIS and the unwillingness to use it to perform their jobs. Because the use of SIS was not supported by leadership in her unit, she had to use the legacy system as well as manual process for certain job functions instead of using the SIS.

> *So then I moved over to Unit C within the same office about 8 months into my job here and I think the implementation had gone on more smoothly at the university scale for the Unit C side of things but again our office is lagging behind because people were relatively uncomfortable with the SIS so they didn't do a lot of the things that we were supposed to be doing to make the implementation happened smoothly. I mean the people who are going to be negative about it just stuck their head in the hole in the ground and pretend like the SIS wasn't happening and continue to use the legacy system to the last dying second and honestly went back to paper processes, manual paper processes and didn't deal with the SIS. I love window based system, I love the other system that I've used and I thought the SIS*

> *was great so I was going to try to use it as robustly as possible but it wasn't supported in the unit*

System Attributes Contributed to the Acceptance or Resistance of SIS

Because Oprah had experience using a similar system at her previous institution, she felt the SIS in general was fairly easy to use

> *I thought the SIS was fairly easy to use cause I've gone through the other system implementation and all the basic search functions were quite easy.*

Oprah commented that her colleagues who were legacy system users did not like the SIS because it was different and harder to use. Furthermore, her colleagues had to adjust their processes in order to make them work in the SIS.

> *I felt like, I mean I was at the tail end of the legacy system, but I felt like that the implementation of the SIS drove policies because at the Unit C end, well, like you said before what it took on one screen in the legacy system took 16 screens in the SIS and the SIS is asking for so much more information than we had to provide in the legacy system and so suddenly because you have the ability to track more information, suddenly everybody wants more information and now the system is driving policy. I mean the way we had to do things on the Unit C side is completely different that how we were doing it in the legacy system because we have this new product. So I felt like that not only were we going through an implementation, we were also completely revamping our policy to match it.*

However, when Oprah represented her unit to take part in the SIS Unit B function implementation, she found the SIS Unit B functions very difficult to learn. Since there was no leadership support for the SIS Unit B function within her office, Oprah had to perform her job functions manually. Moreover, when the first opportunity came by with a vacated Unit C function position within the office, Oprah applied and took the Unit C function position.

> *But then I got put on the SIS Unit B function implementation team and wanted to throw up (chuckle). There was nothing easy about that! It was really scary because the person who was doing the work in legacy system Unit B had not updated any of our information in the legacy system for 6 years. And the SIS Unit B function was going to be implemented, they had gotten money to hire a backfill*

> *position to fix the situation but the information hadn't created and they ended up didn't hire anybody to do that so we had a situation where we were supposed to implement this system and we have no active information to build into the new system for the implementation. So the SIS Unit B function got implemented in the university level and we just didn't do anything with it because we didn't have any of the information created. So I continue to manually do the work and use the SIS for basic navigation functionality and then move to Unit C as soon as I could because I saw that it was going to be a disaster to try to move into the SIS when we hadn't been using the legacy system for the Unit B work.*

Staff Attributes Contributed to the Success of the SIS Implementation

Oprah reflected the importance of leadership support for the success of the SIS implementation. Because Oprah's office did not have leadership support, the use of the SIS by staff were minimal and only when the data was required to use the SIS. However, the use of the SIS Unit C functions within Oprah's office did not conformed to university's best practices. Staff were instructed to perform manual processes and use the legacy system as long as they were allowed.

> *Yes (chuckle), that was fun to clean up and that was my experience and we have the Unit C side of things too because the higher ups in my office were relatively uncomfortable with the SIS. Their directives were to send the files to the departments, make the decisions and then we will deal with the SIS later. So we didn't use the SIS to automate our processes like all the other colleges were doing, we just sent the files over to the departments and if they were accepted then we dealt with the SIS and we dealt with the SIS in a very quick and dirty way. Putting the information after the fact if we needed to and we have some protocol for made up information if we had to enter information in SIS. And this went on for several years.*

After the departure of the office leadership, Oprah took leadership and tried to find out what needed to be done to implement SIS processes within her office.

> *But once the leadership left then when we tapped into these committees and your office, the things that existed, helped support us and we developed the best practices and once we had these things in place then everything flows smoothly. So I think when our new people come in, we have these manuals, not only did we developed best practices but we developed those policy and procedure manuals because we want to make sure we wrote down absolutely everything we are doing in there so that nobody else will have to go through that level of uncertainty.*

Communication

Oprah commented the lack of communication within her office was a big issue with the then leadership in place. Information was not filtered down from management and staff were completely disconnected with the university.

> *I think that when I first started, and I don't know if it was a problem internally or externally, but I felt like communication was a huge problem when I first started in 2002. It was the practices that I want to know about and I didn't feel like that there was anything being communicated to the users at my level. It was supposed to be disseminated down through leadership within each office and that where it was obviously getting stuck but it was not getting passed down to the level that I was at, at that point. That was the most frustrating part about my job, there was a complete lack of communication and I was getting absolutely nothing what the university was doing. I didn't know any support group so I didn't know of anything, I didn't even know if the rest of the university was using the SIS (chuckle). It was just a complete lack of communication so I said that was almost what drove me out of my position when I started here. That we were supposed to be…I am a big fan of data quality and in that position, I felt like nothing was happening and there was not any kind of support at the university level because we didn't know how to find it.*

After the then leadership left, Oprah discovered the flow of communication was in place with the university and other colleges.

> *So I imagine that it went more smoothly with some units that others and I was not happy when I first got here and the way it was working but yeah once certain individuals left, I felt like that the network that was created on campus was great. I don't ever felt like that if I have a question that I can't find the answer to.*

Functional Users Support Group

Oprah stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS Unit A functions.

> *Well once I got tapped into the rest of the university, then I realized that people actually know what they are doing and the implementation was actually running smoothly and so like I said I found these FUSG2 members and they became my best friends and the FUSG1.*

In addition, Oprah relied on the FUSG2 members to find out best practices in

order to create documentation for her offices. Oprah worried that without documentation Big U suffered knowledge loss when staff from implementation team retired or left for other employment.

> *I think that for us and I don't know that it is true for everyone else, because we had to, in order to figure out the best practices, we had to first figure out what we were doing wrong, we developed best practices by joining committees and by asking questions and by finding out what other people are doing. There were no manuals existed in my office so when I started there was no in-house training. There was no point of contact and there was no expert in my office for a couple of years after I was there.*

Training

Oprah attended the required general SIS training provided by the SIS office in order to receive access to the SIS.

> *I took part in the initial classroom training, the basic navigation and the student system query training and that was fine but I've already been using another system so a lot of that seemed sort of intuitive so the navigation part was not difficult to me.*

Team

Upon Oprah's reflection, she stressed the importance of the FUSG2 to create a conducive team environment during the SIS implementation in order to have a smooth transition.

> *And God bless those FUSG2 members because we had those people here that knew how to do these things already and so once we developed the best practices for our office, I think it's pretty smooth transition now.*

Critical Support Contributed to the SIS Adoption Process

Due to the then leadership, Oprah had gone through the SIS implementation in an environment that had a complete lack of communication. Because of this experience, Oprah valued the powerful of networking with FUSGs to receive pertinent information through the flow of communication. She also appreciated the accessible support from the

SIS office to answer questions and troubleshoot issues.

> *I think is the networking, is what has been the most helpful, with other users and the committees that exists. Data Quality committee is incredible helpful. Obviously, your office is incredible helpful. I think the most important thing is the network of users in your same unit just bouncing ideas off each other when you don't know how to do something or you are not sure about what the right answer is, to be able to get together and talk it out as a group, is the most useful in adopting proper practices for the SIS.*

Leadership

Oprah commented it was frustrating that the leadership within her office did not support the SIS implementation. They did not attend any meetings to receive pertinent information on the SIS implementation. In turn, the office was in complete disconnect with the university and staff did not get the needed resources for the SIS transition within the office.

> *There was supposed to be somebody from my office sitting on those meetings and it turned out that we found out a couple of years later that they weren't. So there was a complete disconnect because of the former leadership.*
> *Those of us that were at the lower wrung at that point we were just doing what we were told to do so we didn't realize that there was a complete disconnect with the rest of the university in terms of how the SIS was being implemented.*

Having gone through an extreme case of bad leadership within her office, Oprah understood the role of leadership was to ensure staff to have the necessary resources to perform their job functions by keeping the staff informed and providing the necessary and appropriate training.

> *I think that's essential because you've got users in the thousands here and I think it's impossible to always disseminate information from the top down, from the small unit and make sure that it reaches everybody equally and that everybody is taking use of it equally and so we have to rely on good management and good leadership to take that back to their units and spread the words and to teach people how to use it. And if you don't have that, it's going to affect the people in the entire unit.*

As for leadership from the college upper administration level, the discussion

about the best way of maintaining documentation with best practices and polices came up. While Oprah agreed with Patrick that it would be difficult to maintain them centrally because each college has different policies, like Meryl, Oprah was afraid that maintaining the SIS was not even on the radar for the upper administration within the colleges.

> *Yeah, I think that there are now but what worries me is that sometimes the experts aren't necessary appointed the experts because they just are by the virtue of what they've done over time, sometimes I get nervous about them leaving and how that knowledge is going to get disseminated and pass down. So I think it's really important to have some type of structure in place to keep moving knowledge down. Because it feels like a lot of our best practices in terms of the SIS existed in our heads. And I'm not sure that we got the structure in place to make that expertise that is something that is engrained in the university culture moving forward. Yeah and I don't even know there's an unspoken expectation because like Meryl said they are not thinking about the SIS.*

Feelings Generated from the SIS Adoption Process

Oprah declared that because of the then leadership, the implementation experience was negative for her. She spent several years cleaning up the SIS data because of the lack of best practices in place. However, after the departure of the then leadership and she was connected with the FUSGs, she was proud of her accomplishments in moving forward her office in adopting the SIS.

> *You hear stories about how it was going from people but it was really, really bumpy. So my experience of the SIS implementation was a lot of cleanup several years into it with a lot of bad data that I spent the last couple of years trying to fix. But once I started making contacts, I mean now it's great, I love the SIS, I really do, I love the SIS. It's a great system.*

Oprah's Structural Description

Oprah was hired right when the initial SIS implementation went live during Fall 2002. She went through a system conversion from her previous institution so she came with system conversion experience from the staff perspectives. Because Oprah had experience using a similar system at her previous institution, she felt the SIS in general

was fairly easy to use. While she was ready to use the new SIS, Oprah felt that she was impacted by the mandated change due to the negative feelings her colleagues had toward the new SIS and the unwillingness to use it to perform their jobs. Because the use of SIS was not supported by leadership in her unit, she had to use the legacy system as well as manual process for certain job functions instead of using the SIS.

Oprah commented that her colleagues who were legacy system users did not like the SIS because it was different and harder to use. Furthermore, her colleagues had to adjust their processes in order to make them work in the SIS. However, when Oprah represented her unit to take part in the SIS Unit B function implementation, she found the SIS Unit B functions very difficult to learn. Since there was no leadership support for the SIS Unit B function within her office, Oprah had to perform her job functions manually. Consequently, when the first opportunity came by with a vacated Unit C function position within the office, Oprah applied and took the Unit C function position.

Oprah reflected the importance of leadership support for the success of the SIS implementation. Because Oprah's office did not have leadership support, staff were instructed to perform manual processes and use the legacy system as long as they were allowed. The use of the SIS by staff were minimal and only when the data was required to use the SIS. However, the then leadership did not obtain best practices information; thus, the use of the SIS Unit C functions within Oprah's office did not conformed to university's best practices.

Oprah commented it was frustrating that the leadership within her office did not support the SIS implementation. They did not attend any meetings to receive pertinent information on the SIS implementation. In turn, the complete lack of communication

within her office caused the office to be in complete disconnect with the university. Information was not filtered down from management and staff did not get the needed resources for the SIS transition within the office.

After the departure of the office leadership, Oprah took leadership and tried to find out what needed to be done to implement SIS processes within her office. Oprah discovered the flow of communication and information was in place with the university and other colleges. She connected with the university level committee as well as established FUSG for various unit functions in order to move forward with using the SIS within her office Because of the lack of best practices, it took Oprah several years to clean up the Unit C data.

Although Oprah attended the required general SIS training provided by the SIS office in order to receive access to the SIS, Oprah stressed the importance of having the FUSG2 members to serve as resources for each other to discuss issues related to the SIS Unit A functions. In addition, Oprah relied on the FUSG2 members to find out best practices in order to create documentation for her offices. Oprah worried that without documentation Big U suffered knowledge loss when staff from implementation team retired or left for other employment. Upon Oprah's reflection, she stressed the importance of the FUSG2 to create a conducive team environment during the SIS implementation in order to have a smooth transition.

Due to the then leadership, Oprah had gone through the SIS implementation in an environment that had a complete lack of communication. Because of this experience, Oprah valued the powerful of networking with FUSGs to receive pertinent information through the flow of communication. She also appreciated the accessible support from the

SIS office to answer questions and troubleshoot issues.

Having gone through an extreme case of bad leadership within her office, Oprah understood the role of leadership was to ensure staff to have the necessary resources to perform their job functions by keeping the staff informed and providing the necessary and appropriate training.

As for leadership from the college upper administration level, the discussion about the best way of maintaining documentation with best practices and polices came up. While Oprah agreed with Patrick that it would be difficult to maintain them centrally because each college has different policies, like Meryl, Oprah was afraid that maintaining the SIS was not even on the radar for the upper administration within the colleges. Overall, Oprah declared that because of the then leadership, the implementation experience was negative for her. She spent several years cleaning up the SIS data because of the lack of best practices in place. However, after the departure of the then leadership, she took ownership and connected with the FUSGs. She was proud of her accomplishments in moving forward her office in adopting the SIS.

Queen's Textural Description

Feelings Generated toward the Mandated Change

Queen was the newest member of the FUSG2 and was hired recently.

Well I started the beginning of this month.

System Attributes Contributed to the Acceptance or Resistance of SIS

Queen commented she did not have any previous SIS experience. However, after she attended training, she found the SIS straight forward and intuitive to use.

> *I had no previous experience with the SIS. I found it fairly straight forward and intuitive for me. I am able to get around the screens I used primarily,*

Staff Attributes Contributed to the Success of the SIS Implementation

Queen agreed with FUSG2 members that having leadership support is crucial to the success of the SIS implementation.

Communication

Queen agreed with Meryl and Nicole that communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff.

> *Communication right now is filtered within my own office. They've been really great about passing on information.*

Functional Users Support Group

As one of the FUSG2 members and a new SIS user, Queen appreciated the willingness of FUSG2 members to provide the needed information.

> *I felt welcome to ask questions with every person I came across within the user group.*

Training

Queen attended the required general SIS training provided by the SIS office in order to receive access to the SIS. In addition, she received function specific training from management and coworker.

> *I was trained by management and coworker and I am understanding how everything is working having gone through the training online and I am going to the classroom training next month and I found those all very helpful references. I thought the multimedia training was really helpful because it gave me some basic tools that I need to understand the SIS, so I anticipate really using that to my advantage in understanding the SIS and how to use the tips to access different pages.*

Team

Queen agreed with FUSG2 that the cooperation and the willingness to help each

other among various unit offices created a conducive team environment for her.

Critical Support Contributed to the SIS Adoption Process

Queen affirmed that having access to experienced SIS users that were willing to help and provide information were keys to the SIS adoption process.

> *Having experienced SIS users in my close network like everybody was talking about, they were willing to help and communicate and mentor, I anticipate that will be very key.*

Leadership

Queen stressed the importance of the open communication within her office and how valuable it was in order to obtain the needed information.

> *As a new user feeling free to kind of asking the same questions over and over again (chuckle) because I don't want to mess something up. Having that freedom and that open communication and dialogue is really valuable and important to me. And having it on every level, I know I have that in my office.*

Feelings Generated from the SIS Adoption Process

Queen declared that the SIS adoption process is a positive learning experience and she understood that as a new user she must be open to learning new technology.

> *Well it takes certain amount of humanity to learn new technology and your job, your community, whatever, so and being able to ask those questions over and over again, it's definitely a learning experience, it takes flexibility and those are the skills that I'm developing for this transition. Being open and being teachable and curious so I think that those are the skill sets as a new user.*

Queen's Structural Description

Queen was the newest member of the FUSG2 and was hired recently. Although Queen did not have any previous SIS experience, after she attended training, she found the SIS straight forward and intuitive to use.

Queen agreed with FUSG2 members that having leadership support is crucial to the success of the SIS implementation. Queen stressed the importance of the open

communication within her office and how valuable it was in order to obtain the needed information. Thus, Queen agreed with Meryl and Nicole that communication within her college was excellent because they kept each other informed and filtered information received from the university down to appropriate staff.

Queen attended the required general SIS training provided by the SIS office in order to receive access to the SIS. In addition, she received function specific training from management and coworker. Queen affirmed that having access to experienced SIS users that were willing to help and provide information were keys to the SIS adoption process. However, Queen commented it would be helpful if more updated documentation was available.

As one of the FUSG2 members and a new SIS user, Queen appreciated the willingness of FUSG2 members to provide the needed information. Queen agreed with FUSG2 that the cooperation and the willingness to help each other among various unit offices created a conducive team environment for her. Overall, Queen declared that the SIS adoption process is a positive learning experience and she understood that as a new user she must be open to learning new technology.

Reese's Textural Description

Feelings Generated toward the Mandated Change

Reese stated she had SIS experience from her previous institution.

> *I was not here for the implementation but having been at another school who also have the SIS.*

Although the use of the SIS Unit B functions are mandated, Reese admitted that since the legacy system Unit B functions were accessible, she and her staff still used the legacy system Unit B functions whenever necessary.

> *Yeah I think like I said earlier, truth be told, I have staff in my office who will still run the legacy system Unit B functions. And if I get into a situation where my dean calls and I need to look up some information on a student, I will run a legacy stem Unit B because I know everything is there. Sometimes I worry that the way I built the SIS Unit B that things are falling into places that it's not supposed to and I don't know where to look for them. Like I mean the information hides in places that you don't know where they are! (group laugh) and at least I know if I print a legacy system Unit B, everything is there.*

System Attributes Contributed to the Acceptance or Resistance of SIS

According to Reese, it was frustrating when the SIS could not perform certain needed functions and they had to find a way to work around the system for their processes.

> *I think there are levels of frustration things that you want out of the SIS and they just say that it was working as design which is one of the classic but we general work around it and find a way to get the information that we need.*

Reese also stated that most users agreed that the legacy Unit B functions was easier to use than the SIS Unit B functions.

> *I think a lot of people would say that. Even people who were really positive, like Clint, who kept us all together, and he knows both system and he would sit here and say it was easier in the legacy system.*

Furthermore, the SIS Unit B functions were complicated and difficult to understand. In order to troubleshoot issues, the FUSG2 met once a week to collaborate their efforts in making the SIS Unit B functions work correctly.

> *Well when we were implementing the SIS Unit B functions, we were meeting like once a week, trying to get everybody's programs up and running. We would meet once a week and it was really more, look at what just happened to me and this record looked like this and we would spend a good 2 or 3 hours, like I don't know, let's look here and there trying to figure it out.*

However, Reese stated that the information for the SIS Unit B functions was built well. Although the functions were difficult for staff, it was very user-friendly for students.

> *It's built well and it's very friendly for students. I don't think we ever hear or I haven't that I can think of in however many years that Unit B has been up, students complain about Unit B, you know, like, I can't see it or I don't know where it is.*

Staff Attributes Contributed to the Success of the SIS Implementation

Reese stated in general because staff were trained, they were ready to perform their job functions and test for upgrades to ensure the SIS worked properly.

> *I think the majority of the time we are ready and we are trained and test really well which I think is really important to test it.*

However, for the SIS Unit B functions, it was so flexible that there was more than one way to perform functions. This flexibility added complexity and inconsistency; thus, Reese relied on staff to ensure the outcome was accurate regardless to how they were achieved in the SIS.

> *Everybody does it different. I have 4 Unit B staff and everyone does it differently and I am like OK whatever you have to do to make it work, do it. Even when we went through training, I remember they brought in that second consultant and he did it completely different than the first one. So even the vendor trainers themselves are not consistent in teaching us how to build the information in the SIS Unit B functions!*

Communication

Reese commented that communication among the FUGS3 were mainly via constant meetings where they would troubleshoot problems related to the Unit B functions.

> *In the beginning we were meeting weekly and then it went down to every 2 weeks and then once a month.*

Functional Users Support Group

Reese agreed with Salma that although the FUSG3 was for the SIS Unit B functions, users do not have time to help and support each other to troubleshoot issues on

a daily basis because the Unit B functions were very complex; thus, users felt they were asking too much from fellow Unit B users to spend the time.

> *That's really was what that group does is to troubleshoot issues. And for instance with the new requirement, well we had to figure out how to make that work in SIS Unit B so we all sit down with our minimal amount of expertise and say OK let's try this.*

Training

Reese received basic training from the SIS office. For the Unit B functions, Reese stated that she received minimal training from Tom; however, Reese was appalled to discover there was no in-depth Unit B function specific training to troubleshoot issues once the information was built in the system.

> *Tom did some training on how to change some information on a record functionally. Because when I came back to Big U it was implementation time. That was my first experience and it was like throw you into the fire. I had no idea and there was nothing out there to help me figure it out.*

In terms of training Unit B staff, Reese agreed with the Unit B FUSG members that it was not their responsibilities to be trainers for the SIS Unit B functions.

> *No, no, we are not training anybody, it's not our responsibility. We are not trainers.*

Team

Reese agreed with Salma that the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions.

> *So that's when we turned to each other and the Unit B team like oh my gosh this happened how do I fix this. And literally we would sit around the table and try to figure how to fix it.*

Critical Support Contributed to the SIS Adoption Process

Reese thought that the most important thing in supporting her adoption and use of

the SIS Unit B functions was support from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions.

> *I think that was the problem. Whomever the super user was who was put in charge of maintaining the Unit B functions, that's only an eighth of what our job was but we are responsible for it. We are trying to hold our head above water and make sure the SIS Unit B functions work correctly. I think there needs to be a person who's dedicated to SIS Unit B so when a new person comes in, they have someone to go to and ask. I mean you go to one of us, we are giving you our best guess but I can't, I think if there was an office and someone that maintained it and then have time to look out and say try new things in the SIS Unit B. There could be new things that we could do!*

Since Reese agreed with Salma that technical support was critical in implementing policy changes that required updating the SIS Unit B functions, she was thankful that the technical staff were committed to help with the SIS Unit B functions.

> *No way, that's a very small piece of her job. We are just lucky that she likes us.*

Leadership

Reese stated that the Unit B implementation team leader tried to provide the dedicated resources needed to support the SIS Unit B functions. However, he was unsuccessful in filling the position. Reese thought that it was because the salary did not match the technical skill required for the position.

> *And I think Clint for a while had it built into a staff in his office, a technical person when a certain staff left but truth be told, the pay was bad and you are not going to get someone with the technical expertise to maintain the SIS Unit B functions and to build it and test it. So he never got it filled. So I don't know that the university designated it that way or Clint realized that it was something that we needed and so he took one of his staff and make it more technical.*

Reese affirmed the lack of support from upper administration leadership to put in place long term planning and dedicated resources to have continual training for the SIS

Unit B functions.

> *I think all of us every assessment period, we proposed this. And if the university goal is to move forward, if we are ad hocing it and doing the best we can, that's not a priority.*

Feelings Generated from the SIS Adoption Process

Although Reese adopted and use the SIS Unit B functions and she was getting proficient in it, she felt that SIS Unit B implementation did not transition well because dedicated resources were not provided to support the SIS Unit B functions after it went live. Although Reese believed functional users must take ownership to learn the system, it was not their responsibility to serve as functional experts to maintain and troubleshoot the functions.

> *And truth be told it was much better than it was in the beginning. But I'm going to retire some day and Tom is going to retire, you know, people who now feel better and now that my staff can come in and say they can't fix this and I can fix it in 2 seconds, that's great. It makes our life a lot easier but I think Xena had said it earlier. The frustration is that it is such an important piece to not just what we do, I mean it's not just an Unit B functions, other unit offices use it, every single person on this campus uses that to assist a student, which is why we are here. And the function part of it got put on our offices because it was seen as a tool for Unit B and it is a great tool but functionally it's so much more than that and people don't see it and so there are people using us as the little people that take care of it. In your analogy when you said that when they brought on the SIS implementation, they brought in functional users so that that person will take ownership, yes, they would take ownership but it's not their responsibility. A functional user is going to take ownership that they have to learn this to do their job but there is a SIS office that they contact if they don't understand something or it can't function well but there is no SIS Unit B functions office.*

Reese's Structural Description

Reese worked at Big U before the initial SIS implementation. When she left to work for another institution, the institution had already gone through the SIS implementation. Reese came back to Big U to work for one of the Unit B offices and discovered that Big U was in the middle of the SIS Unit B functions implementation.

Reese received basic training from the SIS office and she stated in general because staff were trained, they were ready to perform their job functions and test for upgrades to ensure the SIS worked properly.

For the Unit B functions, Reese stated that she received minimal training from Tom; however, Reese was appalled to discover there was no in-depth Unit B function specific training to troubleshoot issues once the information was built in the system; thus, when it came to the use of the SIS Unit B functions, although it was mandated, Reese admitted that since the legacy system Unit B functions were accessible, she and her staff still use the legacy system Unit B functions whenever necessary.

Reese stated that most users agreed that the legacy Unit B functions was easier to use than the SIS Unit B functions. The SIS Unit B functions were complicated and difficult to understand. In addition, it was so flexible that there was more than one way to perform functions. This flexibility added complexity and inconsistency; thus, Reese relied on staff to ensure the outcome was accurate regardless to how they were achieved in the SIS. According to Reese, it was frustrating when the SIS could not perform certain needed functions and they had to find a work around for their processes. However, Reese stated that the information for the SIS Unit B functions was built well. Although the functions were difficult for staff, it was very user-friendly for students.

Reese commented that communication among the FUGS3 were mainly via constant meetings where they troubleshoot problems related to the Unit B functions. Reese agreed with Salma that although the FUSG3 was for the SIS Unit B functions, users do not have time to help and support each other on a daily basis to troubleshoot the issues because the Unit B functions were very complex; thus, users felt they were asking

too much from fellow Unit B users to spend the time. When the SIS Unit B functions was first implemented, the FUSG2 met once a week to collaborate their efforts in making the SIS Unit B functions work correctly and to troubleshoot issues. Reese also agreed with Salma that the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions. However, without technical support, they would not have been able to implement some of the policy changes that required updating the SIS Unit B functions; thus; Reese was thankful that the technical staff were committed to help with the SIS Unit B functions.

Reese expressed frustration toward the lack of support from upper administration leadership to put in place long term planning and dedicated resources to have continual training for the SIS Unit B functions. Reese believed that the most important thing in supporting her adoption and use of the SIS Unit B functions was support from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions. Reese stated that the Unit B implementation team leader tried to provide the dedicated resources needed to support the SIS Unit B functions. However, he was unsuccessful in filling the position. Reese thought that it was because the salary did not match the technical skill required for the position.

Although Reese adopted and use the SIS Unit B functions and she was getting proficient in it, she felt that SIS Unit B implementation did not transition well because dedicated resources were not provided to support the SIS Unit B functions after it went live. Although Reese believed functional users must take ownership to learn the system,

it was not their responsibilities to serve as functional experts to maintain and troubleshoot the functions. Hence, in terms of training Unit B staff, Reese agreed with the Unit B FUSG members that it was not their responsibilities to be trainers for the SIS Unit B functions.

Uma's Textural Description

Feelings Generated toward the Mandated Change

Uma worked at Big U for about a year and stated she did not have SIS experience from her previous institution but she had experience in a similar system.

> *Well I was not here for the conversion because I've been here a year and I had no previous SIS experience. I had experience in other similar systems. So I came in as a brand new user.*

System Attributes Contributed to the Acceptance or Resistance of SIS

The SIS Unit B functions were complicated and difficult to understand. Uma observed that newer staff tended to be more open to learn the SIS and troubleshoot issues. However, for long time staff, they tended to rely on management to correct the issues for them in the SIS.

> *Well I have 2 staff, one has been here for 18 years and the other has been here 2 and the one that's been here for 2 has only work for this current job Unit B environment, and is pretty open to it and is open to trying to figure it out. The older staff are not open to that. The minute that there is one little thing, her reaction is to go running to the Unit B director to fix it for her.*

Staff Attributes Contributed to the Success of the SIS Implementation

Uma stated the willingness of the retired former director to serve as a part-time consultant to troubleshoot the SIS Unit B functions issues made it possible for her unit to use the SIS Unit B functions.

> *And so for my first 6 months that was the former Unit B director who would do that for us for a price. And now they take it to me and I would take it to the*

FUSG3 meeting.

Communication

Uma agreed with Vanessa that communication about the SIS was adequate as far as information about system upgrades and whether the SIS as a whole was working properly. In addition, Uma affirmed that communication among the FUGS3 were mainly via meetings where they troubleshoot problems related to the Unit B functions.

Functional Users Support Group

Uma appreciated having the FUSG3 as resources for using and troubleshooting the SIS Unit B functions.

> *And then with the Unit B function, Vanessa has helped a lot, she helped me in the beginning, most people were very helpful*

Training

Uma received basic training from the SIS office.

> *The training that I went through was the Student System Query training, it was very fast, very intense, it was 2 or 3 hours. The instructor was great but she had to talk a mile a minute, I wasn't familiar yet with my job to know what kind of questions that I really had. So I never had the opportunity to go back and do it again. I guess I can do it again (laugh) So at my level, I needed a different kind of training. And learning the lingo!*

For the Unit B functions, Uma stated that she received minimal training from Clint. Afterwards she relied on the FUSG3 members as resources.

> *I have an email about that there is no training! There is no training and that when I came back and ask what do you mean there was no training. And I asked and you've helped and send me over to Clint. So I got training from Clint and he spent 3 hours with me but you can't learn it in 3 hours. He was just trying to give me the broad stroke of how it works. And then Vanessa has helped a lot, she helped me in the beginning, most people were very helpful.*

Although Uma saw the need to have more than one staff within her unit to learn the SIS Unit B functions, because of workload issues, it was difficult to find the time to

achieve the knowledge transfer among staff.

> *Well we are trying to get one other person train within our office and that's just becoming a nightmare because he has more pressing part of his job. So it's a big workload issue. And the two of you have to actually sit down and do it, we both have to do it at the same time or he'll never going to learn it. You know so it becomes quite complicated. Good intention but complicated.*

In terms of training Unit B staff, Uma agreed with the Unit B FUSG members that it was not their responsibilities to be trainers for the SIS Unit B functions.

> *No, no, we are not training anybody, it's not our responsibility. We are not trainers. It's important to realize too that actually we may get comfortable and feel like we can do what we need to do in order to keep things going, it doesn't mean we are good trainers either.*

Team

Uma agreed with Vanessa that the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions.

> *And for me it is all the colleagues at different level trying to figure it out and make it work.*

Critical Support Contributed to the SIS Adoption Process

As with other FUSG3 members, Uma thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was support from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions. Uma also agreed with FUSG3 members that technical support was critical in implementing policy changes that required updating the SIS Unit B functions.

> *When you think about what it is used for and it is used by everybody and everything relies on it. So why not make sure it is well supported. It seems such a*

critical goal.

Leadership

Uma affirmed she was stunned by the lack of support from upper administration leadership from the university level to put in place long term planning and dedicated resources to have continual training for the SIS Unit B functions.

> *I was rather stunned that a university this size that there was not a person that was basically in charge of the Unit B functions. And when I went back to do some homework, I had actually found out that there was a recommendation to hire such a person and I'll be really frank that I'm stunned that we haven't done that yet because the Unit B function is such an integral part of the SIS and everybody who uses it and to just kind of leave it to a group of ad hoc uses, I mean we tried our best and the FUSG3 chair was very accommodating and got us together but it's all sort of a self-taught thing and we have various level of expertise in the system that for a system that for something that critical that we don't have a person double checking what we are doing or something because in the end I think it would cause errors and coding issues so that became real clear to me pretty much up front.*

However, Uma was grateful for the leadership support from her college. During the first six months of her job, her unit was able to hire the retired former Unit B director who was a SIS Unit B functions expert to maintain and troubleshoot the SIS Unit B functions.

> *I've had good support from my college allowing me to access the previous Unit B director to come in and work with us on that and we are at a point now that we are fine but it took about a year to get us there. And I don't quite understand that kind of a system because everybody who gets a job here that's going to have had a system work in the SIS, in particular the way Big U has defined it.*

Feelings Generated from the SIS Adoption Process

Uma was not as comfortable in using the SIS as she liked mainly because she felt like she spent a lot of time trying to figure out the Unit B functions in the SIS.

> *And I feel that essentially I use the SIS to go in and look at and try to figure out the Unit B functions in the system. I don't look up student records very often. I feel I need to do that more often and get more comfortable with it because I'm*

used to be able to doing everything in a system like the SIS and I don't feel comfortable with it yet.

Uma's Structural Description

Uma worked at Big U for about a year and stated she did not have SIS experience from her previous institution but she had experience in a similar system. According to Uma, the SIS Unit B functions were complicated and difficult to understand and she observed that newer staff in the unit tended to be more open to learn the SIS and troubleshoot issues. However, for long time staff, they tended to rely on management to correct the issues for them in the SIS.

Uma agreed with Vanessa that communication about the SIS was adequate as far as information about system upgrades and whether the SIS as a whole was working properly. In addition, Uma affirmed that communication among the FUGS3 were mainly via meetings where they troubleshoot problems related to the Unit B functions. Uma appreciated having the FUSG3 as resources for using and troubleshooting the SIS Unit B functions.

Uma received basic training from the SIS office. At the time of the SIS training, since Uma was not yet familiar with her job functions, she did not know what questions to ask. For the Unit B functions, Uma stated that she received minimal training from Clint. Uma felt she was not as comfortable in using the SIS as she liked mainly because she felt like she spent a lot of time trying to figure out the Unit B functions in the SIS. Although Uma saw the need to have more than one staff within her unit to learn the SIS Unit B functions, because of workload issues, it was difficult to find the time to achieve the knowledge transfer among staff. However, in terms of training Unit B staff, Uma agreed with the Unit B FUSG members that it was not their responsibilities to be trainers

for the SIS Unit B functions.

Uma relied on the FUSG3 members as resources and agreed with Vanessa that the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions. Uma also agreed with FUSG3 members that technical support was critical in implementing policy changes that required updating the SIS Unit B functions.

As with other FUSG3 members, Uma thought that the most important thing in supporting her adoption and use of the SIS Unit B functions was support from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions. Hence, Uma affirmed she was stunned by the lack of support from upper administration leadership from the university level to put in place long term planning and dedicated resources to have continual training for the SIS Unit B functions.

However, Uma was grateful for the leadership support from her college. During the first six months of her job, her unit was able to hire the retired former Unit B director who was a SIS Unit B functions expert to maintain and troubleshoot the SIS Unit B functions. Overall, Uma and the FUSG3 members unanimously agreed that there was not enough support in using the SIS Unit B functions and it just happened to be one of the most complex functions in the SIS but a critical function.

Vanessa's Textural Description

Feelings Generated toward the Mandated Change

Vanessa started as an employee in a department within a college and she did not

have SIS experience. She felt that the positive attitude from the implementation sub-teams that served as the function specific trainer helped her accept the mandated change. Vanessa felt that she had a good experience in learning the SIS and had no problem using it for her job functions.

> *And I was at the department user side of it and I felt the positive attitude. I did not feel that it was a horrible thing that was going to happen, I never, I don't recall a gloom and doom like oh my god it's gonna be awful, we never got that from our trainers. So I did not have a negative experience. I just knew that this was happening, you know we accepted it, I accepted it. I went to the training. I learn something new, you know, my college had multiple training sessions for different department level users and I was confident in my training so I didn't have any problem.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Although Vanessa had no problem learning and using the SIS during the initial implementation, she had a hard time learning the SIS Unit B functions. In addition to no formal training provided for the SIS Unit B functions, it was complicated and difficult to understand.

> *It's extremely painful and it is so critical to your unit and no one in your unit knows how to do it, you can't set up the functions, you can't do anything.*

Staff Attributes Contributed to the Success of the SIS Implementation

Despite the difficulty in trying to learn the SIS Unit B functions with no training and no manual with Big U processes, Vanessa was determined to figure out how to use the SIS Unit B functions and solicited help from the FUSG3 members. Vanessa stated that all subsequent new SIS Unit B function users were just as frustrated because they did not have training. However, with some help from the FUSG3 members, they all tried to make the SIS Unit B functions worked properly.

> *Yeah when I first realized that I need to do this and I asked where was the manual and there wasn't a manual and Salma dug out this old combed bound document.*

> *But it really wasn't a manual and there wasn't any training. It really was. It was throw you into the fire and figure this out. It's a big headache! I mean just figuring out where to go for the resource to get it done and figure out how to use it. Once you figured out in your mind I think my first learning experience basically was quick and dirty like how do I make this work, how do I make this information fit. You know and I didn't know about this code cause no one ever told me so I build these other complex rules to make it work and that was how I did because that's how I taught myself to use it because there was no training. Was it painful? Yes but I can make it do it. I think that's the issue, everyone here makes it work. You make it work, we are going to figure out how to make it work. I think Big U is in a great position because it has great staff who make it work.*

Vanessa stated what she liked most from the support that she had received toward adopting and using the SIS in general was the accessible and responsive support from the SIS office.

> *Because the minute I have a question and I can't figure it out and I have a problem, I just email the SIS office support staff and within sometimes minutes or seconds, I get a respond. Or I don't know right now, let me look into it some more and I get a call back. You know if they don't understand, let's look at this together or I can just call and someone's going to troubleshoot.*

Communication

Vanessa commented that the communication she received provided her with adequate information about the SIS.

> *Communication is adequate. We know when upgrade is coming; we know when we should be testing. We know when there's a problem and when the system is going down for an emergency. We are not uninformed from my perspective.*

Functional Users Support Group

Vanessa agreed with Salma that although the FUSG3 was for the SIS Unit B functions and they used each other as resources, users do not have time to help and support each other to troubleshoot issues on a daily basis because the Unit B functions were very complex; thus, users felt they were asking too much from fellow Unit B users to spend the time.

> *It's not like you can say hey can you come over to my college and help me to do my Unit B functions, I mean they have their whole entire job that they are doing. So that was really difficult.*

Because the main purpose of the FUSG3 meetings was troubleshooting issues, the conversions and discussions were so technical that new comers to the group who had not learned the lingo were completely lost.

> *And yeah there is a functional users group that now that I know how to do it when we talk, I understand now what's going on there. But with others in the meeting there, if you are a new user, it just goes right over your head!*

Training

As a department staff, Vanessa received basic training from the SIS office as well as function specific training from the implementation sub-teams. She thought the training that she had received was great.

> *I went through training through the SIS office. Because I started out as a department level user and then college level user in Unit A, I went through all the training via the implementation sub-teams at the department level that helped with the transition in my previous college. And I think it was a good experience. I didn't have any difficulty using the system but I went through all the initial training.* The initial SIS training that was provided by the SIS office, I thought that was great. *The specific functional training that I got in the college is great.*

Vanessa reiterated that formal training by the vendor consultant was only available for the Unit B functions implementation team during implementation. There was not any subsequent formal training for any new users. When she changed job and worked at one of the Unit C offices, Vanessa had to learn the Unit B functions by herself because there was no formal training. She found a manual written by the vendor trainer at the time of the Unit B functions implementation but it did not reflect Big U processes. She contacted the FUSG3 group and was grateful she received some help. In addition, Vanessa was able to receive some guidelines from Winona's written manual that

reflected Big U processes even though it was for Winona's college. However, each college setup the Unit B functions differently so it was still a self-learned process for Vanessa.

> *I actually had to learn the Unit B functions pretty much by myself. When I got another job at one of the Unit C offices and I found that the person who was supposed to do the Unit B function, wasn't doing them in my area. And so I had to learn it myself and I was looking for manuals and I printed out all these documentation that was about 4 inches thick and realized that we didn't quite do it that way. And you know I called in another college to give me a manual that was written by Winona and I used that a little bit, I mean I sat down a bit with other people but I pretty much had to learn it myself. So there really wasn't any training for that.*

In terms of training Unit B staff, Vanessa agreed with the Unit B FUSG members that it was not their responsibilities to be trainers for the SIS Unit B functions.

> *No, no, we are not training anybody, it's not our responsibility. We are not trainers*.

Team

Vanessa agreed with Salma that the teamwork among FUSG3 members was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions.

> *Also we use it to deal with initiatives that are coming down from higher up, above our level, be it from the Provost Office or Board of Regents, whoever it is, we use it as a group trying to troubleshoot how to handle that type of situations.*

Critical Support Contributed to the SIS Adoption Process

Vanessa thought that the most important thing in supporting her adoption and use of the SIS in general was communication of information.

> *The most important thing in supporting me toward adopting and using the SIS is information as in communication.*

However, for the Unit B functions, Vanessa felt it was crucial to have support

from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions.

> *If we are to continue to use Unit B functions, the university should consider that a priority. When you think about what it is used for and it is used by everybody and everything relies on it. So why not make sure it is well supported.*

Vanessa agreed with Salma that technical support was critical in implementing policy changes that required updating the SIS Unit B functions, she was thankful that the technical staff were committed to help with the SIS Unit B functions.

> *It took a lot of programming to make the policy work and none of us are capable of doing at all.*

Leadership

Vanessa agreed with Reese and she affirmed the lack of support from upper administration leadership was demonstrated by not putting in place long term planning and dedicated resources to provide continual training as well as documented best practices and manual with Big U processes for the SIS Unit B functions.

> *I think all of us every assessment period, we proposed this. And if the university goal is to move forward, if we are ad hocing it and doing the best we can, that's not a priority.*

Feelings Generated from the SIS Adoption Process

Vanessa had a good experience with the initial SIS implementation because she received adequate training and support as well as documentation for her job functions.

> *For me it's almost a non-event. As a department user it really was almost a non-event. I mean it was just like we are changing over to the SIS and here's the manual and here's how you are going to use it. I mean from my perspective.*

However, the SIS Unit B functions adoption process was painful because of the complete lack of training, support, and documentation.

> *But if you look at the SIS implementation even though there was not tons of training, you can get to your SIS training; you can always send someone to the SIS training. Unit B functions, there is no where you can get Unit B training. It ends.*

Having gone through a mandated change, Vanessa felt she was more open to change and was more willing to look at doing things differently.

> *I think I am more open to change and I'm more open to looking at things doing a different way. I think I understand you know like you said, you don't have a choice, this is it and you always figure ways to make it work. Things are changing so much that things are coming on board that I mean you have to figure out how it work.*

Vanessa's Structural Description

Vanessa started as an employee in a department within a college and she did not have SIS experience. She felt that the positive attitude from the implementation sub-teams that served as the function specific trainer helped her accept the mandated change; thus, Vanessa felt that she had a good experience in learning the SIS and had no problem using it.

As a department staff, Vanessa received basic training from the SIS office as well as function specific training from the implementation sub-teams. She thought the training that she had received was great. Although Vanessa had no problem learning and using the SIS during the initial implementation, she had a hard time learning the SIS Unit B functions. Not only was the SIS Unit B functions complicated and difficult to understand, there was no formal training or documentation that reflected the Big U processes provided to new SIS Unit B functions users.

Vanessa reiterated that formal training by the vendor consultant was only available for the Unit B functions implementation team during implementation. There was not any subsequent formal training for any new users. When she changed job and

worked at one of the Unit C offices, Vanessa had to learn the Unit B functions by herself because there was no formal training. She found a manual written by the vendor trainer at the time of the Unit B functions implementation but it did not reflect Big U processes. She contacted the FUSG3 group and was grateful she received some help. In addition, Winona wrote a manual that reflected Big U processes for her college so Vanessa was able to have some guidelines. However, each college setup the Unit B functions differently so it was still a self-learned process for Vanessa. In terms of training Unit B staff, Vanessa agreed with the Unit B FUSG members that it was not their responsibilities to be trainers for the SIS Unit B functions.

Despite the difficulty in trying to learn the SIS Unit B functions with no training and no manual with Big U processes, Vanessa was determined to figure out how to use the SIS Unit B functions and solicited help from the FUSG3 members. Vanessa stated that all subsequent new SIS Unit B function users were just as frustrated because they did not have training. However, with some help from the FUSG3 members, they all tried to make the SIS Unit B functions worked properly.

Vanessa agreed with Salma that although the FUSG3 was for the SIS Unit B functions and they used each other as resources, users do not have time to help and support each other to troubleshoot issues on a daily basis because the Unit B functions were very complex; thus, users felt they were asking too much from fellow Unit B users to spend the time. The FUSG3 met once a month and the main purpose of the FUSG3 meetings was troubleshooting issues; however, the conversions and discussions were so technical that new comers to the group who had not learned the SIS language were often completely lost. Vanessa agreed with Salma that the teamwork among FUSG3 members

was helpful and made it possible to deal with policy changes that led to the need in the updating the Unit B functions. Vanessa affirmed technical support was critical in implementing policy changes that required updating the SIS Unit B functions, she was thankful that the technical staff member was committed to help with the SIS Unit B functions.

Vanessa thought that the most important thing in supporting her adoption and use of the SIS in general was communication and she felt she received adequate information about the SIS. In addition, Vanessa stated what she liked most from the support that she had received toward adopting and using the SIS in general was the accessible and responsive support from the SIS office.

However, for the Unit B functions, Vanessa felt it was crucial to have support from the upper administration to ensure there was an office with a dedicated staff to serve as the SIS Unit B function experts, maintain the SIS Unit B functions, provide appropriate continual training, and create documentation for the SIS Unit B functions.

Vanessa agreed with Reese and she affirmed the lack of support from upper administration leadership was demonstrated by not putting in place long term planning and dedicated resources to provide continual training as well as documented best practices and manual with Big U processes for the SIS Unit B functions.

Overall, Vanessa had a good experience with the initial SIS implementation because she received adequate training and support as well as documentation for her job functions. However, the SIS Unit B functions adoption process was painful because of the complete lack of training, support, and documentation. Upon reflection, Vanessa felt that having gone through a mandated change; she was more open to change and was

more willing to look at doing things differently.

Eva's Textural Description

Feelings Generated toward the Mandated Change

Eva started at Big U in 2005 and staff in her unit was using the SIS on a regular basis for Unit E functions when she came on board. She went through several SIS upgrades and thought that they were a positive experience.

> *I wasn't here for the initial implementation, I got here 2005 but I was with the 7 version so I don't have any comments on the initial implementation. The upgrade was a very positive experience for me and staff.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Eva had experience with the SIS at her previous institution and thought that the SIS was a good system. However, Eva felt that because of occasional system performance issues causing the system to be slow, it impacted staff productivity.

> *The system in my opinion is a good system. I've used SIS prior coming to Big U. We have different forms and functions that we shared with what Big U used so that was very helpful. I don't think that we have any negative feedback other than some system performance issues meaning sometimes the system is slow. This impact user satisfaction to the system because it interrupts their daily operation and of course that gets into time management for their work.*

Staff Attributes Contributed to the Success of the SIS Implementation

In addition to her Unit E job responsibilities, when the Unit E functional expert left Big U Eva inherited the responsibility to serve as the internal SIS functional expert for Unit E in which she ensured Unit E received the needed support to Unit E functions upgrades. She also served as the testing coordinator for her unit. Furthermore, she worked with the SIS office and the technical support staff to troubleshoot and resolve issues for all SIS Unit E functions.

> *I think we have support, the support is there and that we turn to our technical*

> *support since I've been here. It's not so much as difficult but just that sometimes the technical person is just not abreast of Unit E functionalities so it's a little more difficult for her to assist us to the best of our advantages. But they do help and in the end ultimately, they worked it out and helped us get the system going. So for the most part the support is there, both technical and functional.*

Communication

Eva thought that information received from the FUSG1 meetings and from the SIS office are helpful. In turn, Eva discussed the information about upgrades and testing during staff meetings within her own unit.

> *I think the communication from the FUSG1 and the SIS office are very useful because they help everybody and our users to stay abreast on all the changes that take place and having someone to be the go to person and lead all of that. For me the communication about the upgrades and sharing information about the upgrade. And the test plan. Making sure you follow the test plan across the board.*

Functional Users Support Group

Since Eva did not work at Big U during the SIS implementation, Brad offered a reflection of Unit E from a FUSG1 team member's perspective in that FUSG1 was created in part because Unit E was a driving force of the SIS implementation function. Since all units were inter-dependent, FUSG1 kept all the units informed of each other's progress and needs in order to move forward with the implementation.

> *I have a reflection of Unit E from the standpoint of another team member. Unit E drove the implementation. Much to the chagrin to some of us. And the Unit E consultant ran it like a ship (laugh). She was like, they go in and Unit E was always on this straight arrow moving forward and they were right on with their project plan. Unit E came up first but they were always driving everything and the rest of us that were key dependencies, that's why the FUSG1 committee started because Unit E needs this and Unit E needs that. From a perspective of a team member, Unit E was a driving force.*

Eva felt that serving as the internal functional expert for Unit E could be overwhelming because of the unique functions within Unit E. Thus, Eva felt the FUSG1

was beneficial in serving as communication and support tools.

> *There is so much in Unit E that goes on that I don't think one person can have all that knowledge so having that group helps with all that we do and share information about upgrade and the different sections that we are responsible for. It is very positive for all of us that are involved with our own group and like "Clint" said emotional support that we definitely depend on each other to give their input.*

Training

During the SIS implementation, as Brad mentioned, a vendor consultant for Unit E was hired to assist with building the SIS Unit E functions as well as to train all the Unit E staff. Unit E management was responsible for learning the SIS Unit E functions, documenting new business processes for the new system, and making sure unit E staff received appropriate training from the vendor consultant. Under the guidance of the vendor consultant, the Unit E management team created appropriate Big U business processes documentation. After the implementation, new Unit E staff received basic training from the SIS office and function specific training from the Unit E management team. Eva stated Unit E staff followed the procedure provided when performing their jobs and they also learned from each other. However, Eva would like to see staff taking more initiatives in learning new functions during upgrades instead of relying on her to point out the new functions.

> *For the most part, yeah.. They follow the procedures provided. Unless they learned a trick from colleague and they go with that. The staff needs to take more initiatives with SIS because I'm sure they had to change all of their procedures as well.*

Team

Since joining the FUSG1, Eva appreciated the inter-connectedness among all the units and the collaboration the team had demonstrated in making sure the SIS upgrades

were coordinated such that the SIS was running smoothly for the university.

> *I think it makes you more aware of how everything works not just what you wanted and doing just your part and pushing buttons. Understanding what it all means and how it got there helped.*

Critical Support Contributed to the SIS Adoption Process

Eva thought that the most important thing in supporting her adoption and use of the SIS was the support of technical staff as well as the SIS office staff to resolve issues to ensure the SIS Unit F functions are working properly.

> *The SIS office deals with the system. We all have our jobs, and we don't have to worry about how it works, and what it's doing and what it's not doing. I like most that Unit E is special (laugh). It has to happen and there is no hesitant and that part I like.*

In addition, because of the uniqueness of the Unit E functions, Eva appreciated the opportunity to network with other institution Unit E function offices by attending the SIS conferences in order to share best practices and discuss issues.

> *We still benefit from Summit now. It's the network I guess.*

Leadership

Although Eva accepted the responsibilities in serving as the internal Unit E function experts, upon reflection, Eva wished the Unit E staff would take on more initiatives to learn the SIS and be more proactive in troubleshooting issues during upgrades and testing.

> *Functional, we have, used to have, don't have too much right now, a SIS person. I am now considered the SIS person but I am not a SIS person. But we get it done as best we can. I am resourceful but I try to reach out and get the answers that I need but technical is there. I was kind of...since I was put in this place so I just accepted it and it didn't make me angry. It's just something I did take on. I just accepted it. what I like the least is I am the SIS person and there is not, I wouldn't say buy in, but the initiatives on other staff to learn and get into the SIS more.*

Feelings Generated from the SIS Adoption Process

Eva had adopted the SIS from her previous institution and thought it was a good system. With subsequent upgrades, Eva felt supported and she had positive experiences in working with the FUSG1 members to make sure the upgrades were smooth transitions for the university.

> *I think we have support, the support is there and that we turn to our technical support since I've been here. It's not so much as difficult but just that sometimes the technical person is just not abreast of our area so it's a little more difficult for her to assist us to the best of our advantages. But they do help and in the end ultimately, they worked it out and helped us out get the system going. So, for the most part the support is there, both technical and functional. Functional, we have, used to have, don't have too much right now, a SIS person. I am now considered the SIS person but it's not a SIS person. But we get it done as best we can.*

Eva's Structural Description

Eva started at Big U in 2005 and staff in her unit was using the SIS on a regular basis when she came on board. Eva had adopted and used the SIS at her previous institution and she thought that the SIS was a good system. However, Eva felt that because of occasional system performance issues causing the system to be slow, it impacted staff productivity.

Since Eva did not work at Big U during the SIS implementation, Brad offered a reflection of Unit E from a FUSG1 team member's perspective in that FUSG1 was created in part because Unit E was a driving force of the SIS implementation function. Since all units were inter-dependent, FUSG1 kept all the units informed of each other's progress and needs in order to move forward with the implementation.

During the SIS implementation, as Brad mentioned, a vendor consultant for Unit E was hired to assist with building the SIS Unit E functions as well as to train all the Unit E staff. Unit E management was responsible for learning the SIS Unit E functions,

documenting new business processes for the new system, and making sure unit E staff received appropriate training from the vendor consultant. Under the guidance of the vendor consultant, the Unit E management team created appropriate Big U business processes documentation. After the implementation, new Unit E staff received basic training from the SIS office and function specific training from the Unit E management team. Eva stated Unit E staff followed the procedure provided when performing their jobs and they also learned from each other.

In addition to her Unit E job responsibilities, when the Unit E functional expert left Big U Eva inherited the responsibility to serve as the internal SIS functional expert for Unit E in which she ensured Unit E received the needed support to Unit E functions upgrades. She also served as the testing coordinator for her unit. Furthermore, she worked with the SIS office and the technical support staff to troubleshoot and resolve issues for all SIS Unit E functions. Thus, Eva stated working through the SIS upgrades with support in place was a positive experience.

Eva felt that serving as the internal functional expert for Unit E could be overwhelming because of the unique functions within Unit E. Thus, Eva felt the FUSG1 was beneficial in serving as communication and support tools. In addition, Eva thought that information received from the FUSG1 meetings and from the SIS office are helpful. In turn, Eva discussed the information about upgrades and testing during staff meetings within her own unit.

Since joining the FUSG1, Eva appreciated the inter-connectedness among all the units and the collaboration the team had demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university.

Eva thought that the most important thing in supporting her adoption and use of the SIS was the support of technical staff as well as the SIS office staff to resolve issues to ensure the SIS Unit F functions are working properly. In addition, because of the uniqueness of the Unit E functions, Eva appreciated the opportunity to network with other institution Unit E function offices by attending the SIS conferences in order to share best practices and discuss issues.

Although Eva accepted the responsibilities in serving as the internal Unit E function experts, upon reflection, Eva would like to see staff taking more initiatives in learning new functions during upgrades instead of relying on her to point out the new functions. Overall, Eva felt supported and she had positive experiences in working with the FUSG1 members to make sure the upgrades were smooth transitions for the university.

CHAPTER 9

TEXTURAL AND STRUCTURAL DESCRIPTIONS

Criteria Profile **Staff experienced upgrades only that are** **non-legacy system users and SIS light users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

Demi's Textural Description

Feelings Generated toward the Mandated Change

Demi worked at Big U after the initial SIS implementation and staff in her unit was using the SIS on a regular basis for viewing information when she came on board.

> *I think as far as our office using SIS I think they got used to it when I started. I think in terms of like training them on it and getting use to it, I didn't hear anything by the time I came on board.*

Demi went through a couple of SIS upgrades and her experience with them was a positive one.

> *I wasn't here when you do the initial implementation of SIS but I've been here for a couple of upgrades and my experience with those upgrades have been pretty smooth. I guess in terms of in the area of my office, I'm kind of the only person who deals with them so it's like a one person show, and most of the changes that come through the upgrade I feel like they haven't really affected my work that much so in those terms the upgrades changes were smooth. I don't have many problems to deal with at all.*

System Attributes Contributed to the Acceptance or Resistance of SIS

Demi had adopted and used the SIS at her previous institution and had no problem using the SIS. Demi stated that since the upgrades did not impact Unit D functions, staff did not worry about them.

> *Yeah the transition is smooth because it seems like a lot of time when there are upgrades, it didn't really impact what we do much. So it's more like I tell them there is an upgrade happening and that's it. There isn't really much grumbling. It seems to be a smooth transition. They are not worry about it.*

Staff Attributes Contributed to the Success of the SIS Implementation

Demi observed that the SIS learning curve for new staff were shorter than existing staff mainly because the new staff did not have a history and did not have to unlearn another system in order to learn the SIS.

> *They go with the flow. Especially with so many people coming and going that by the time one person gets used to it and someone else comes in new and they don't know any better. I think people come on and catch on to SIS very quickly and move on with it because there's no history.*

Communication

Demi thought that the information received from the FUSG1 meetings as well as the SIS office was adequate. However, the face-to-face communication to channel information about the upgrades during staff meetings with her unit to reiterate the information was effective.

> *I would say verbal communication at staff meetings. Lots of time people get email and forget about it so to reiterate it orally when everyone was there. That seems to work. As far as the upgrade that I've been through I felt like the communication that the FUSG1 has provided as much information that I need for my job and that I need to communicate to my office.*

Functional Users Support Group

Demi served as the functional experts for Unit D and did not have a users group

within her unit. Thus, Demi felt the FUSG1 was beneficial in serving as communication, learning, and support tools.

> *We really don't have a users group within Unit D because like I said, that just me, a one person show. What I like most is having such a group of people like the FUSG1 members who are familiar of the system and that I can ask if it is something I don't understand. So I think that support, network helped. But by the same token, what I like least about that is that when I get in my office I'm the SIS girl, you know, so it's kind of like while I have this group of people to reach out to, the people in my office look to me and sometimes there's a little bit of impatience there if I can't get the answers to them right away.*

Training

For Demi and Unit D staff, they went through the basic training with the SIS office to learn how to view information and update the data needed within the unit.

> *I think ours just uses it, however. They just use it. We usually just view information. We update very simple data on two forms, really the only two. So it's not that much so I guess they don't use the documentation because it's like updating very simple data that doesn't require using documentation.*

Team

Since joining the FUSG1, Demi agreed with Eva that she appreciated the inter-connectedness among all the units and the collaboration the team had demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university.

Critical Support Contributed to the SIS Adoption Process

Demi thought that the most important thing in supporting her adoption and use of the SIS was the support of the FUSG1 as well as the SIS office staff to resolve issues to ensure the SIS Unit D functions are working properly.

> *And again the upgrades so far hadn't seemed to affect our area that much in any way. I do feel like sometimes I am the only SIS person from my office so that's kind of a lot of pressure and I don't have a technical background so when there is technical questions like that sometimes it's a struggle for me to figure out to get*

> *them resolved. But in terms of support from the FUSG1 meetings and from the SIS office, they were good. And emotional support from the staff that I worked with. I felt that that's been good.*

Leadership

Demi accepted the responsibilities in serving as the internal Unit D function expert and led her unit to ensure Unit D functions worked properly.

> *I think for me what change is that my former experience that I was just more using it doing what I need to do moving to I guess understanding it more and being the contact person for my office. Well it stress me out at first but like I said I think that I become more efficient and I think my way of thinking has become, I am able to think about more ramifications with more things at once. Instead of focusing on one thing, I can think about the consequences of that action more globally. More global way of thinking.*

Feelings Generated from the SIS Adoption Process

Upon reflection, serving the role as the internal Unit D function expert, Demi was anxious and stressed in the beginning. However, she became more confident and efficient in using the SIS. In addition, she appreciated the inter-connectedness among all the units.

> *In terms of feelings, touchy feelings....well quite honestly, there's a little bit of anxiety there. I am sort of place into this role, and I'm kind of in between, a medium, in between the technical people and the users. I guess as I've got more experience, in that role, I become more self confident. Confident about using the system and seeing those interconnections to see how everything works. And being able to communicate and explain to people, well, if X doesn't get done, then this is how Y will affect our work. So that has been a confidence booster for me.*

Demi's Structural Description

Demi worked at Big U after the initial SIS implementation and staff in her unit was using the SIS on a regular basis for viewing information when she came on board. Demi had adopted and used the SIS at her previous institution and had no problem using the SIS. Demi stated that since the upgrades did not impact Unit D functions, staff did not worry about them. Thus, Demi's experience with the upgrades was a positive one.

For Demi and Unit D staff, they went through the basic training with the SIS office to learn how to view information and update the data needed within the unit. Demi observed that the SIS learning curve for new staff member was shorter than existing staff mainly because the new staff did not have a history and did not have to unlearn another system in order to learn the SIS.

Demi accepted the responsibilities in serving as the internal Unit D function expert and led her unit to ensure Unit D functions worked properly. However, Demi stated she did not have a users group within her unit. Thus, Demi felt the FUSG1 was beneficial in serving as communication, learning, and support tools. Demi thought that the information received from the FUSG1 meetings as well as the SIS office was adequate. However, the face-to-face communication to channel information about the upgrades during staff meetings with her unit to reiterate the information was effective. Since joining the FUSG1, Demi agreed with Eva that she appreciated the inter-connectedness among all the units and the collaboration the team had demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university.

Demi thought that the most important thing in supporting her adoption and use of the SIS was the support of the FUSG1 as well as the SIS office staff to resolve issues to ensure the SIS Unit D functions were working properly. Upon reflection, serving the role as the Unit D function expert, initially Demi was anxious and stressed; however, she became more confident and efficient in using the SIS as she learned more.

Summary

Chapters 5 through 9 presented the textural and structural descriptions for each

participant grouped by the five criteria profiles. The completed textural and structural descriptions were sent to the participants and debriefers and they validated the accuracy and completeness of my interpretations. The validated textural and structural were used to develop the composite textural-structural descriptions for each criteria profile which will be presented in the next chapter.

CHAPTER 10

COMPOSITE TEXTURAL-STRUCTURAL DESCRIPTIONS

In this chapter, the validated textural and structural descriptions from the previous chapters were used to develop the composite textural-structural descriptions. The composite textural-structural description for each criteria profile was developed by integrating the experiences of all the individual participants within the criteria profile.

By following Moustakas' (1994) imaginative variation process, the composite textural-structural descriptions began with the list of structural qualities of the experience which included four of the emergent themes: feelings generated toward the mandated change, system attributes contributed to the acceptance or resistance of SIS, staff attributes contributed to the success of the SIS implementation as well as feelings generated from the SIS adoption process. These four themes were integrated into an introduction narrative. For the remaining five emergent themes, two of the themes, critical support contributed to the SIS adoption process and leadership, were integrated into a single universal theme entitled leadership support. The final three themes, communication, training, and functional users support group, remained the same.

The debriefers verified the accuracy and completeness of my interpretations of all the composite textural-structural descriptions. Please refer to Table 6 for participants in each criteria profile.

Criteria Profile **Staff experienced the SIS implementation and upgrades that are legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

There were twelve participants in this criteria profile. At the beginning of the initial SIS implementation, legacy system staff all felt fearful, scared, apprehensive, and frustrated because they must learn a new system. For new staff that had not gone through the change of the system, learning the new system did not cause fear and anxiety because they did not have an old system to which to compare.

Big U benefited from the commitment and accountability to the university from long time staff in making the SIS implementation successful despite their negative feelings toward the SIS because it was believed to be an inferior system to the current legacy system. Unlike the user-friendly legacy system that was built to staff's needs, the SIS was perceived as complex and difficult to use. However, because of the persistence attitude from staff to making the system worked, the SIS implementation was a success. In addition, staff also had to change the familiar business processes because of the new systems.

However, staff agreed that although there were a lot of work and a lot to learn, the initial SIS implementation experience was a positive one due to the people with whom they worked. The breakdown of the silos enabled staff from across the university to gain understanding and respect of other units; thus, staff were better able to work together. The involvement of building the SIS created buy-in and the implementation was a

growing and learning experience that was worth the work. Staff that were part of the implementation sub-team gained a sense of accomplishment and self-confidence.

The Unit B functions implementation occurred in 2005, three years after the initial SIS implementation. Because the SIS implementation was carried out in phases, Big U upper administration allowed the existing legacy system Unit B functions to be incorporated into the new SIS for older records. Thus, staff were able to keep using the legacy system Unit B functions even after the SIS Unit B functions went live.

For the Unit B functions implementation, only seven members of the Unit B functional users were involved in the implementation. The Unit B functions within the SIS were the most complicated and difficult functions to learn. Staff loved the legacy system Unit B functions because it was a home-grown system. It was easy to learn and maintain. The SIS Unit B functions implementation was not the team's first choice. However, the Board of Regents mandated the use of the SIS Unit B functions and did not allow the purchase of another system. Ironically, the SIS Unit B functions implementation members stated that because of the mandate, they were able to ensure the success of the implementation as well as the adoption and use of the SIS Unit B functions when it went live.

To ease the resistance, Big U upper administration hired the vendor consultants to build all the Unit B functions. The seven Unit B functional team members received general training from the vendor consultants using generic documentation instead of Big U business processes. Since the team did not build the Unit B functions, they did not thoroughly learn the complicated system. Thus, they were not confident that they could serve as functional experts and trainer for the Unit B functions. Moreover, the team did

not write a Big U business processes documentation at the time of implementation because of the lack of clarity from upper administration that they were expected to produce documentation with Big U specific processes.

Furthermore, there was no buy-in from colleges' upper administration as well as team leaders and members to serve as functional experts and trainers for the Unit B functional area. Three of the five managerial level team members had since retired after the go live of the Unit B functions. Although the Unit B functions implementation went live successfully after the functions were built by the vendor consultants, it was a negative implementation experience because of the lack of long term support by the university upper administration. Interestingly, although staff agreed the SIS Unit B function was a bad implementation experience, they affirmed that they gained positive attitude about technology change because it served students better.

Communication

Staff felt that written communication, such as informational website about the new system, was not effective during the beginning of the implementation because it was not a system that they wanted. Therefore, there was no interest in reading information about the new system. Although information sessions as well as demonstrations of the new system were effective communication means during the implementation, staff agreed that the most effective communication channel was face-to-face communication during meetings. Information flowed from the implementation team leaders to their team members. Team members in turn communicated to their units. Thus, unit staff stressed the importance of leadership support and their responsibilities to fully participate in all implementation meetings in order to receive and communicate pertinent information on

the SIS implementation to staff. Staff attested that the lack of information at the unit level severely impeded staff from adopting and using the SIS.

After the SIS went live, communication from the FUSG1 meetings and the upgrade email reminders from the SIS office were effective to keep the staff across the university informed. For unit functions staff, communication from established FUSGs meetings served as the main communication tool for information on their specific functions.

Training

For staff that were part of the implementation team, frustration was caused by the overwhelming amount of new information delivered by incompetent off site vendor consultant. During this period, the presence of an accessible and knowledgeable in-house SIS functional expert alleviated some of the frustration by answering questions for team members. When a competent full time onsite vendor consultant was hired, the level of frustration went down because the implementation team received the constant and instant support that they needed. In addition, staff noted learning the new SIS could be as intimidating as learning a new language because they must learn the 7-character SIS form names instead of the screen numbers in the legacy system.

For staff across Big U, the SIS office provided general training to serve as a foundation. In addition, members of implementation sub-teams who served as the unit function experts provided customized training for specific functional units. This two-tier training was crucial to the success of the implementation. Furthermore, staff stated the importance of hands-on practice time and having SIS documentation with Big U business processes to reinforce the knowledge learned from the training in order to perform their

daily job functions in the new SIS.

After the SIS went live, the keys to continuing success of adopting and using the system were the on-going general training provided by the SIS office and the functional training to specific units provided by the unit function experts. Staff stressed the importance of having SIS documentation with Big U business processes and worried that without documentation Big U would suffer knowledge loss when staff from implementation team retired or left for other employment.

Functional users support groups

Staff agreed that FUSGs were significant to the success of the implementation. The support that specific functional units received from their FUSGs was vital to staff's positive experience toward the implementation. Friendship, loyalty, ownership, accountability, trust, respect, involvement, buy-in, consensus building, team work and collaboration, network as well as emotional support grew out of these groups that made it possible to endure the hardship of such a large scale implementation.

After the SIS went live, most FUSGs continued meeting to keep each other informed on issues as well as for the emotional support. They also served as a learning tool to keep up with the different ways to use the system. Some FUSGs evolved into various university committees and met periodically to discuss and monitor SIS unit functions issues related to their units.

Leadership Support

Staff affirmed that the university upper administration leadership made very good choices in choosing implementation team leaders to lead the SIS implementation. The commitment from the colleges' upper administration allowed the members from the

implementation sub-teams, selected from the various units across colleges, to devote time to ensure a smooth implementation. Staff agreed that university upper administration support was crucial during the implementation. An example of their support was providing funding for backfill positions so that staff could concentrate on the large amount of work needed for the implementation.

Moreover, the funding also provided the four main elements for a smooth transition for the implementation: (a) a competent full time onsite vendor consultant that was approachable and provided constant and instant support, (b) a capable project manager that was positive and provided action items, task lists, milestones, and deadlines to keep teams on track, (c) an accessible and knowledgeable in-house SIS functional expert that was empathetic and provided guidance to alleviate fear and misunderstanding while learning the new system, and (d) continuous proficient and accessible technical support to assist with data conversion and troubleshoot issues as they occurred.

For the SIS Unit B function implementation, in addition to the FUSG3, staff that were part of the implementation sub-team agreed that team leader support was crucial during the Unit B functions implementation to ensure positive attitudes in adopting and using the SIS Unit B functions because of the negative experience of this implementation.

After the SIS went live, staff appreciated the essential general functional support and training received from the SIS office. The SIS office also facilitated all of the upgrades and testing, acted as a liaison between the functional and the technical staff, and provided all of the on-going communications and updates regularly to SIS users.

However, staff expressed frustration toward the lack of support from the university upper administration leadership that was demonstrated by not putting in place

long term planning and dedicated resources for unit specific functional-technical experts in troubleshooting issues, performing testing for upgrades, maintaining unit specific documentation, and providing on-going function specific training for units across Big U. Because of the SIS implementation and the SIS Unit B function implementation, negative feelings were expressed toward the university upper administration for the expectation of unit staff to assume a role as on-going functional-technical experts within their unit that may not have been part of their initial job descriptions. Staff stated there was no buy-in from colleges' upper administration to allow members of implementation sub-teams, selected from the various units among the colleges, the time to serve the role as unit functional-technical experts after the SIS went live. Unit staff were expected to devote their time to conduct business processes for their respective colleges. For unit staff not within colleges, they were expected to serve multiple roles.

While unit staff understood the importance of having unit specific functional-technical experts in supporting the on-going adoption and use of the SIS and ensuring unit functions worked properly, because of workload issues, unit staff did not have the time necessary for them to serve the role as the functional-technical experts. Because of the lack of time to devote to multiple roles, staff stated there were many missed opportunities to leverage many new functions and capabilities offered by the SIS in order to improve business processes.

Criteria Profile **Staff experienced the SIS implementation and upgrades that are non-legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

There was only one participant in this criteria profile. This participant looked forward to helping with the transition because she was a non-legacy system user hired for the specific purpose of assisting in the SIS implementation before the SIS implementation went live. She was responsible for ensuring their unit functions would go live on the scheduled target dates successfully as well as to make sure there was the needed support for SIS functions to work properly within her unit.

Because of the high resistance in using the SIS, as a non-legacy system user, she was glad about the mandated change and that the university put in place an implementation team structure to ensure each unit's time frames and targets was met. She felt that the mandate for the SIS implementing and the clear time frames as well as goals provided by the implementation team made it possible for them to move her unit along with the implementation. In addition, she felt the negative feelings and resistance generated toward the mandated change were mainly because of the need to change current procedures within her units.

At the university level, this participant felt that the implementation team leaders selected to lead the change efforts were key for the success of the SIS implementation because they were willing to work hard and were committed to the SIS implementation.

Communication

This participant thought that the primary face-to-face communication used to channel information about the implementation during implementation meetings was effective. Because of the resistance of the legacy system users during the implementation, this participant relied on the SIS implementation team to keep them on track and to move her unit forward. At her unit level, staff meetings were the main communication tool to relay crucial information about the implementation.

Training

This participant stated that the unit management was responsible for her unit's implementation in learning and building the SIS unit functions, documenting new business processes for the new system, and making sure unit staff received appropriate training from the vendor consultant. Unit management was also responsible for providing all subsequent on-going function specific training after the SIS went live as well as to maintain unit specific documentation for subsequent upgrades.

Functional users support groups

This participant recognized that although her unit functions were unique, the units were inter-dependent of each other's functions. Thus, as a member of the FUSG1, this participant felt FUSG1 was beneficial in serving as communication and support tools. Upon her reflection, teamwork and communication from the implementation team stood out most for this participant. She cherished the personal relationships and team bond that grew out of the implementation team.

Leadership Support

The SIS implementation created an overwhelming amount of information that had

to be learned for their unit functions. This participant thought that the most important thing in supporting staff toward the adoption and use of the SIS was the support of leadership. During the implementation, this participant stated that leadership at the unit level must support the change efforts and be able to make decisions in order to move forward in the implementation process.

This participant declared that assisting the highly resistant unit staff when the unit director had difficulty making decision through the SIS adoption process was a growing and learning experience. Because this participant had previous implementation experiences, she had certain expectation from management and leadership. However, she learned that she must be patient with different working style and managed their expectations. On a positive note, this participant felt the SIS implementation brought on positive changes within her unit and her unit staff began working as a team to improve processes.

At the university level, this participant thought the university upper administration did a good job in providing managerial support during the implementation to ensure the success of the implementation team leaders that were selected to lead the change efforts. In addition, this participant felt the creation of the SIS office as the SIS went live was essential to because the SIS office facilitated all of the upgrades, acted as a liaison between the functional and the technical staff, provided all of the on-going communications and updates regularly to SIS users.

However, this participant affirmed that the university upper administration did not have long term in place to support function specific unit after the SIS went live. In addition, they did not provide adequate resources to put in place a much needed

functional-technical users to troubleshoot issues, perform testing for upgrades, maintain unit specific documentation, and provide on-going function specific training. Because of the lack of time to devote to multiple roles, this participant stated there were many missed opportunities to leverage many new functions and capabilities offered by the SIS in order to improve business processes.

Criteria Profile **Staff experienced the SIS implementation and upgrades that are legacy system users and SIS light users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

There were two participants in this criteria profile. Both staff members mentioned that most Big U staff loved the legacy system and did not want to change. However, the mandated change to the new SIS did not impact legacy system heavy or light users as long as they were SIS light users who only needed to view information or update simple data in the SIS. The longer staff used the legacy system, the more negative feelings toward the SIS. Legacy system heavy users felt that the new SIS was very different and non-user friendly. Legacy system light users who had not use the system for a long time were more excited to learn the new SIS and thought it was an easy transition.

Communication

Both staff members thought that receiving information via email from the university to channel information about the implementation was effective. In addition, they received information about the SIS from staff meetings. After the SIS went live, they

relied on the SIS office website and newsletter to provide them with up-to-date SIS information.

Training

SIS light users went through the basic training provided by the SIS office to learn how to view information and update the data needed within the unit. They noted learning the new SIS could be as intimidating as learning a new language because they must learn the 7-character SIS form names instead of the screen numbers in the legacy system. However, they appreciated the trainer's positive attitude and felt the training helped them learn more about the SIS.

Leadership Support

Both staff members were satisfied with the mechanisms the university had put in place, namely, the SIS office provided communication, training, and functional support, to help facilitate the transition from the legacy system to the new SIS. Both staff members emphasized the importance of having accessible and just-in-time hands-on training.

Since SIS light users did not have an established FUSG, both staff members affirmed the importance of having accessible support from the SIS office to answer questions. They commented the SIS office was accessible and responsive to their needs in using the SIS. Although there was not an established FUSG, staff expressed the importance of networking with other SIS users to serve as resources and support in learning and using the SIS. Both staff members felt that knowing they were not alone in the transition helped them in adopting and using the SIS. Moreover, both staff members affirmed having good training and accessible SIS support staff in place contributed to the

success of the SIS implementation. Overall, both staff members were proud of themselves because they survived the transition.

Criteria Profile **Staff experienced upgrades only that are** **non-legacy system users and SIS heavy users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

There were eight participants in this criteria profile. In general, upgrades were smooth transitions for unit functions. For all unit functions except for the Unit B functions, unit function specific documentation for Big U processes were created during implementation and were maintained by unit function experts across units. Unit function experts were usually management level staff who were involved in the implementation and assumed the role of functional experts within the unit in addition to their existing workload. The responsibilities as functional experts included providing unit function specific training for unit staff, maintaining documentation for upgrades, and troubleshooting issues for unit functions as they occurred.

However, for Unit B function staff, they viewed the changes caused in upgrades as obstacles that contributed to keeping up with maintaining the Unit B functions to work properly. In addition, there was no formal training or documentation for new Unit B functions users. New management level Unit B function staff were shocked and expressed disbelief that they must rely on the generic documentation to teach themselves how to use the Unit B functions as well as the FUSG3 to answer general questions and

troubleshoot issues. Some Unit B function staff were grateful that their college upper administration was supportive and funded the hiring of a retired managerial staff member that was part of the Unit B functions implementation to serve as a trainer and to build and maintain the Unit B functions. The FUSG3 members continued to struggle in learning to maintain the functions. They had to troubleshoot and figure out the SIS Unit B functions with the help of technical support. There was no university level support for the Unit B functional users for function specific training or troubleshooting issues.

Communication

Staff agreed that email communication from the FUSG1 and the SIS office for upgrades and updates were very effective. After the initial SIS implementation and the Unit B functions implementation went live, most implementation teams evolved into the FUSGs and had on-going meetings to serve as learning and communication tool as well as to serve as each other's resources in troubleshooting issues

Training

Staff agreed the keys to continuing success of adopting and using the system were the on-going general training provided by the SIS office and the function specific training provided by unit managers with the help of business processes documentation that were created and maintained since the initial SIS implementation.

For the Unit B functions, staff were frustrated that the university upper administration lacked long term planning in providing on-going and continuous support for Unit B functional training. Staff stressed the importance of having SIS documentation with Big U business processes and worried that without documentation Big U would suffer knowledge loss when staff from implementation team retired or left for other

employment.

Functional users support groups

Staff agreed that FUSGs were essential because the networking provided accessible support. This was especially true for the Unit B functions staff because the only resource they had was the FUSG3. FUSG3 members met regularly to keep each other informed on issues as well as for emotional support. FUGS3 also served as a learning tool to keep up with the different ways to use the system. The support received from FUSG3 was vital to Unit B staff's ability to survive the go live of the Unit B functions as well as subsequent upgrades. For FUSG3 members, the purpose of the group was to serve as a resource to troubleshoot issues as well as to implement new Unit B initiatives and policies approved by upper administration. They did not see themselves as Unit B functional experts and trainers for the general Unit B functions users.

Friendship, accountability, consensus building, networking as well as emotional support grew out of FUSG3 that made it possible to endure the lack of on-going and continuous support from the university.

Leadership Support

Although staff from this criteria profile did not experience the initial SIS implementation, some staff started at Big U as the SIS went live. Staff reflected the importance of leadership support for the success of the SIS implementation and subsequent upgrades. The devastating impact of the lack of leadership support within the unit could impede the adoption and use of the SIS. In one such unit, staff were instructed to perform manual processes and use the legacy system as long as they were allowed. Staff should use the SIS minimally and only when the data was required to enter in the

SIS by the university's processes. In addition, when leadership did not obtain best practices information, the use of the SIS within the unit did not conform to the university's best practices. Moreover, when leadership within the unit refused to attend implementation meetings, the complete lack of communication within the unit caused the unit to be completely disconnected from the university implementation transition. Information was not filtered down from management and staff did not get the needed resources for the SIS transition within the unit.

After the SIS went live, staff agreed that continual leadership support was important to provide staff with needed training. Staff felt the general functional support and training provided by the SIS office was essential. In addition, the SIS office facilitated all of the upgrades and testing, acted as a liaison between the functional and the technical staff, provided all of the on-going communications and updates regularly to SIS users. It was also crucial to have easy access to continuing technical support to support the smooth operation of the overall SIS system.

While unit staff understood the importance of having unit specific functional-technical experts in supporting the on-going adoption and use of the SIS and ensuring unit functions worked properly, because of workload issues, unit staff did not have the time necessary for them to serve in the role of functional-technical experts. Staff stated there was no buy-in from colleges' upper administration for them to serve as functional experts and trainers for the Unit B functional area. Thus, staff insisted on the need for the university to have a central Unit B functions office. This office would provide functional-technical experts to serve as trainers and upgrade testers as well as to create the much needed Big U business processes specific Unit B functions documentation. Staff stated

that because of their overloaded existing workload, they firmly believed that it was not their job to serve as the university's functional experts and trainers, to write documentation, and to serve as upgrade testers for Unit B functions.

Criteria Profile **Staff experienced upgrades only that are** **non-legacy system users and SIS light users.**		
Experienced SIS Implementation and Upgrades	Legacy System User	SIS Heavy User
Experience Upgrades only	Non-legacy System User	SIS Light User

There was only one participant in this criteria profile. This participant worked at Big U after the initial SIS implementation and her unit staff were already using the SIS on a regular basis for viewing information when she came on board. This participant had adopted and used the SIS at her previous institution and had no problem using the SIS. She stated that since the upgrades did not impact her unit's functions, her unit staff did not worry about them. Thus, the upgrade experience was a positive one for her unit in general.

Communication

This participant thought that the information received from the FUSG1 meetings as well as the SIS office was adequate. However, the face-to-face communication to channel information about the upgrades during staff meetings with her unit to reiterate the information was effective.

Training

For SIS light users who used the SIS to view information in general, they went

through the basic training with the SIS office to learn how to view information and update the data needed within the unit. It was observed that the SIS learning curve for new staff were shorter than existing staff mainly because the new staff did not have a history with the legacy system and therefore did not have to unlearn another system in order to learn the SIS.

Functional users support groups

This participant accepted the responsibilities in serving as the internal unit function expert and led her unit to ensure her unit's functions worked properly. However, she stated that she did not have a users group within her unit. Thus, she felt the FUSG1 was beneficial in serving as communication, learning, and support tools. Since joining the FUSG1, staff agreed that she appreciated the inter-connectedness among all the units and the collaboration the team had demonstrated in making sure the SIS upgrades were coordinated such that the SIS was running smoothly for the university. Upon reflection, serving the role as the internal unit function expert, this participant was anxious and stressed in the beginning; however, as she learned more, she became more confident and efficient in using the SIS.

Leadership Support

This participant thought that the most important thing in supporting her adoption and use of the SIS was the support of the FUSG1 as well as the SIS office staff to resolve issues to ensure her unit's SIS unit functions were working properly. Thus, this participant was appreciative of the leadership support in funding the SIS office.

Summary

In this chapter, the validated textural and structural descriptions from chapters 5

through 9 were used to develop the composite textural-structural descriptions. The composite textural-structural description for each criteria profile integrated the experiences of all the individual participants within the criteria profile. The debriefers were asked to verify my data analysis and they validated the accuracy and completeness of my interpretations. The next chapter will present the synthesis of composite textural-structural descriptions where the composite textural-structural descriptions were integrated to develop the universal experiences of all the participants.

CHAPTER 11

SYNTHESIS OF COMPOSITE TEXTURAL-STRUCTURAL DESCRIPTIONS FOR STAFF EXPERIENCES OF THE SIS ADOPTION PROCESS DURING IMPLEMENTATION AND UPGRADES

At the beginning of the initial SIS implementation, legacy system staff felt fearful, scared, apprehensive, and frustrated because they must learn a new system. The mandated change to the new SIS did not impact either legacy system heavy or light users as long as they were SIS light users who only needed to view information or update minimal data in the SIS.

Staff mentioned that most Big U staff loved the legacy system and did not want to change. The longer staff used the legacy system, the more negative feelings toward the SIS. Legacy system heavy users felt that the new SIS was very different and non-user friendly. Legacy system light users who did not use the system for a long time were more excited to learn the new SIS and thought it was an easy transition. For new staff that had not gone through the change of the system, learning the new system did not cause fear and anxiety because they did not have an old system with which to compare. It was observed that the SIS learning curve for new staff were shorter than existing staff mainly because the new staff did not have a history and did not have to unlearn another system in order to learn the SIS. For new staff with SIS experience from previous institutions, colleagues' resistance in using the SIS was a source of frustration because their abilities

in performing their job were hindered by the resistance. They were confronted with the need to convince colleagues and helped them in adopting and using the SIS.

Staff felt that the implementation team leaders selected to lead the change efforts were key for the success of the SIS implementation because they were willing to work hard and were committed to the SIS implementation. The implementation team and sub-teams were responsible for ensuring their unit functions would go live on the scheduled target dates successfully as well as to make sure there was the needed support for SIS functions to work properly within their unit. In addition, they were responsible for learning and building the SIS unit functions, documenting the new business processes for the new system, and making sure unit staff received appropriate training.

For all unit functions, except for the Unit B functions, unit function specific documentations for the Big U processes were created during implementation and were maintained by unit function experts across units once the SIS went live. Unit function experts were usually management level staff who were involved in the implementation and assumed the role of functional experts within the unit in addition to their existing workload. The responsibilities as functional experts included providing unit function specific training for unit staff, maintaining documentation for upgrades, and troubleshooting issues for unit functions as they occurred. Staff stressed the importance of having SIS documentation with Big U business processes and worried that without documentation Big U would suffer knowledge loss when staff from implementation team retired or left for other employment.

Big U benefited from the commitment and accountability to the university from long time staff in making the SIS implementation successful despite their negative

feelings toward the SIS because it was believed to be an inferior system to the current legacy system. Unlike the user-friendly legacy system that was built for their needs, staff perceived the SIS as complex and difficult to use. However, because of the persistence attitude from staff to making the system worked, the SIS implementation was a success. In addition, staff had to change the familiar business processes because of the new system.

Because of the high resistance in using the SIS in some units, at times staff that were on the implementation team and sub-teams were glad about the mandated change. They were also glad that the university put in place an implementation team structure to ensure each unit's time frames and targets were met. The mandate for the SIS implementing and the clear time frames as well as goals made it possible to move units along with the implementation.

Overall, staff agreed that although there were lots of work and lots to learn, the initial SIS implementation experience was a positive one due to the people with whom they worked. The breakdown of the silos enabled staff from across the university to gain understanding and respect of other units; thus, staff were better able to work together. The involvement of building the SIS created buy-in and the implementation was a growing and learning experience that was worth the work. Staff that were part of the implementation team and sub-teams gained a sense of accomplishment and self-confidence. Staff agreed that they went into the implementation feeling like victims and came out of it feeling like champions.

The Unit B functions implementation occurred in 2005, three years after the initial SIS implementation. Because the SIS implementation was carried out in phases,

Big U upper administration allowed the existing legacy system Unit B functions to be incorporated into the new SIS for older records. Thus, staff were able to keep using the legacy system Unit B functions even after the SIS Unit B functions went live.

For the Unit B functions implementation, only seven members of the Unit B functional staff were involved in the implementation. The Unit B functions within the SIS were the most complicated and difficult functions to learn. Staff loved the legacy system Unit B functions because it was a home-grown system that was easy to learn and maintain. The SIS Unit B functions implementation was not the team's first choice. However, the Board of Regents mandated the use of the SIS Unit B functions and did not allow the purchase of another system. Ironically, the SIS Unit B functions implementation members stated because of the mandate, they were able to ensure the success of the implementation as well as the adoption and use of the SIS Unit B functions when it went live.

To ease the resistance, Big U upper administration hired vendor consultants to build all the Unit B functions. The seven Unit B functional team members received general training from the vendor consultants using generic documentation instead of Big U business processes. Since the team did not build the Unit B functions, they did not thoroughly learn the complicated system. Thus, they were not confident that they could serve as functional experts and trainers for the Unit B functions. Moreover, the team did not write a Big U business processes documentation at the time of implementation because of the lack of clarity from upper administration that they were expected to produce documentation with Big U specific processes.

Furthermore, there was no buy-in from colleges' upper administration as well as

team leaders and members to serve as functional experts and trainers for the Unit B functional area. Three of the five managerial level team members had since retired after the go live of the SIS Unit B functions. Although the Unit B functions implementation went live successfully after the functions were built by the vendor consultants, it was a negative implementation experience because of the lack of long term support by the university upper administration. Interestingly, although staff agreed the SIS Unit B function was a bad implementation experience, they affirmed that they gained positive attitude about the technology change because it served students better.

After the SIS went live, in general most units did not have problems with upgrades and were able to take advantage of the enhancements that some upgrades had to offer. Thus, upgrades were a positive experience for most staff. However, for Unit B function staff, they viewed the changes caused in upgrades as obstacles that contributed to the constant upkeep for Unit B functions to work properly.

Communication

Staff felt that written communication such as the informational website about the new system was not effective during the beginning of the implementation because it was not a system that they wanted. Therefore, there was no interest in reading information about the new system. Although information sessions as well as demonstration of the new system were effective communication means during the implementation, staff agreed that the most effective communication channel was face-to-face communication during meetings.

Information flowed from the implementation team leaders to their team members. Team members in turn communicated to their units. Thus, staff stressed the importance

of leadership support from unit managers and their responsibilities to fully participate in all implementation meetings in order to receive and communicate pertinent information on the SIS implementation to staff. In addition, staff attested that the lack of information at the unit level severely impeded staff from adopting and using the SIS.

After the SIS went live, communication from the SIS office about upgrades and system availabilities was effective in keeping staff across the university informed. In addition, for SIS heavy users from unit functions, communication from established FUSGs' on-going meetings served as the main communication tool for information on their specific functions. Information was funneled down to appropriate staff during staff meetings. For SIS light users, they relied on the SIS office website and newsletter to provide them with up-to-date SIS information.

Training

For staff that were part of the implementation team and sub-teams, frustration was created by the overwhelming amount of new information delivered by incompetent off-site vendor consultant at the start of the implementation. During this period, the presence of an accessible and knowledgeable in-house SIS functional expert alleviated some of the frustration by answering questions for team members. When a competent full time onsite vendor consultant was hired, the level of frustration went down because the implementation team received the constant and instant support that they needed. In addition, staff in general noted learning the new SIS could be as intimidating as learning a new language because they must learn the 7-character SIS form names instead of the screen numbers in the legacy system.

For unit functions staff across Big U, the SIS office provided general training to

serve as a foundation. In addition, members of implementation sub-teams who served as the unit functional experts provided customized training for specific functional units. This two-tier training was crucial to the success of the implementation. Furthermore, staff stated the importance of hands-on practice time to reinforce the knowledge learned from the training in order to perform their daily job functions in the new SIS.

For SIS light users, they went through the basic training provided by the SIS office to learn how to view information and update the data needed within the unit. They appreciated the trainer's positive attitude and felt the training helped them in adopting and using the SIS.

After the SIS went live, the keys to continuing success of adopting and using the system were the continuance of the general training provided by the SIS office and the functional training to specific units provided by the unit functional experts.

For the Unit B functions, staff were frustrated that the university upper administration lacked long term planning in providing on-going and continuous support for Unit B functional training. There was no formal training or documentation for new Unit B functions users. New management level Unit B function staff were shocked and expressed disbelief that they had to rely on the generic documentation to teach themselves how to use the Unit B functions. In addition, they had to rely on the FUSG3 to answer general questions and troubleshoot issues. Some Unit B functions staff were grateful that their college upper administration was supportive and funded the hiring of a retired managerial staff member that was part of the Unit B functions implementation to serve as a trainer and to build and maintain the Unit B functions.

Functional users support groups

Staff agreed that FUSGs were significant and essential to the success of the implementation because the networking provided accessible support. Staff agreed they learned about the inter-connectedness among all the units from participating in the FUSGs. They appreciated the collaboration the team had demonstrated in making sure the SIS implementation and upgrades were coordinated such that the SIS ran smoothly for the university. The support received from their FUSGs was vital to the staff from various functional units' positive experience with the implementation and upgrades. Friendship, loyalty, ownership, accountability, trust, respect, involvement, buy-in, consensus building, team work and collaboration, networking as well as emotional support grew out of these groups and made it possible to endure the hardships of such a large scale implementation. Staff cherished the personal relationships and team bonding that grew out of the implementation team and sub-teams that evolved into FUSGs.

After the SIS went live, most FUSGs kept the on-going meetings to keep each other informed on issues as well as for the emotional support. The FUSGs also served as a learning tool to keep up with the different ways to use the system. Some FUSGs evolved into various university committees and met periodically to discuss and monitor SIS specific unit function issues.

For Unit B functions, FUSG3 members continued to struggle in learning to maintain the functions after the functions went live. There was no university level support for the Unit B functional users for function specific training or troubleshooting issues. Since FUSG3 was the only resource the Unit B staff had for accessible support, they met regularly to keep each other informed on issues as well as for emotional support. The

support received from FUSG3 was vital to Unit B staff's ability to survive the go live of the Unit B functions as well as subsequent upgrades. For FUSG3 members, the purpose of the group was to serve as a resource to troubleshoot issues as well as to implement new Unit B initiatives and policies approved by upper administration.

Leadership Support

Staff affirmed that the university upper administration leadership made very good choices in choosing implementation team members to lead the SIS implementation and in providing managerial support during the implementation to ensure the success of the implementation team leaders that were selected to lead the change efforts. The commitment from the colleges' upper administration allowed members from the implementation sub-teams selected from the various units across colleges to devote time to ensure a smooth implementation.

Staff agreed that university upper administration support was crucial during the implementation in providing funding for backfill positions. This allowed staff to focus on the large amount of work needed to complete for the implementation. In addition, staff felt the creation of the SIS office as the SIS went live was essential because the SIS office facilitated all of the upgrades, acted as a liaison between the functional and the technical staff, provided all of the on-going communications and updates regularly to SIS users.

Moreover, the funding also provided the four main elements for a smooth transition for the implementation. These elements were: (a) a competent full time onsite vendor consultant who was approachable and provided constant and instant support, (b) a capable project manager who was positive and provided action items, task lists, milestones, and deadlines to keep teams on track, (c) an accessible and knowledgeable

in-house SIS functional expert who was empathetic and provided guidance to alleviate fear and misunderstanding while learning the new system, and (d) continuous proficient and accessible technical support to assist with data conversion and troubleshoot issues as they occurred.

At the unit level, staff thought that the most important thing in supporting staff toward the adoption and use of the SIS was the support of unit leadership. During the implementation, staff stated that leadership at the unit level must support the change efforts and be able to make decisions in order to move forward in the implementation process. In addition, staff reflected the importance of leadership support for the success of the SIS implementation and subsequent upgrades. The devastating impact of the lack of leadership support within the unit could impede the adoption and use of the SIS.

In one example unit, staff were instructed to perform manual processes and use the legacy system as long as they were allowed. Staff should use the SIS minimally and only when the data was required to enter in the SIS by the university's processes. In addition, when leadership did not obtain best practices information, the use of the SIS within the unit did not conform to university's best practices. Moreover, when leadership within the unit refused to attend implementation meetings, the complete lack of communication within the unit caused the unit to be completely disconnected from the university. Information was not filtered down from management and staff did not get the needed resources for the SIS transition within the unit.

For the SIS Unit B function implementation, in addition to the FUSG3, staff that were part of the implementation sub-team agreed that team leader support was crucial during the Unit B functions implementation to ensure positive attitudes in adopting and

using the SIS Unit B functions because of the negative experience of this implementation.

In general, staff were satisfied with the mechanisms the university had put in place, namely, the SIS office providing communication, training, and functional support, to help facilitate the transition from the legacy system to the new system. Staff emphasized the importance of having accessible and just-in-time hands-on training. For SIS light users, since they did not have an established FUSG, staff affirmed the importance of having accessible support from the SIS office to answer questions. They commented that the SIS office was accessible and responsive to their needs in adopting and using the SIS. Although there was not an established FUSG, staff expressed the importance of networking with other SIS users because they served as resources as well as support in learning and using the SIS. Staff felt that knowing they were not alone in the transition helped them in adopting and using the SIS. Moreover, staff affirmed having good training and accessible SIS support staff in place contributed to the success of the SIS implementation. Overall, staff were proud of themselves because they survived the transition.

After the SIS went live, staff agreed continual leadership support was important to provide staff with the needed training. In general, staff appreciated the essential general functional support and training received from the SIS office. The SIS office also facilitated all of the upgrades and testing, acted as a liaison between the functional and the technical staff, and provided all of the on-going communications and updates regularly to SIS users.

However, some staff that were SIS heavy users expressed frustration toward the lack of support from the university upper administration leadership for not putting in

place long term planning and dedicated resources for unit specific functional-technical experts to troubleshoot issues, perform testing for upgrades, maintain unit specific documentation, and provide on-going function specific training for units across Big U. Staff stressed the importance of having SIS documentation with Big U business processes and worried that without documentation the Big U would suffer knowledge loss when staff from implementation team retired or left for other employment.

Because of the SIS implementation and the SIS Unit B function implementation, negative feelings from unit staff were exasperated that the university upper administration expected unit staff to assume a role of on-going functional-technical experts within their unit. In many instances, this role was not part of their initial job descriptions. Staff stated that there was no buy-in from colleges' upper administration to allow members of implementation sub-teams selected from the various units among the colleges the time to serve the role as unit functional-technical experts after the SIS went live. Unit staff were expected to devote their time to conduct business processes for their respective colleges. For unit staff not within colleges, they were expected to serve multiple roles, including the role of unit functional-technical experts.

While unit staff understood the importance of having unit specific functional-technical experts in supporting the on-going adoption and use of the SIS and ensuring unit functions worked properly, because of workload issues, unit staff did not have the time necessary for them to serve the role as the functional-technical experts. In addition, unit staff stated there was no buy-in from colleges' upper administration for them to serve as functional experts and trainers for the unit functional area. Thus, unit staff insisted on the need for the university to have a central unit functions office. This office staff would

serve as functional-technical experts, trainers, and upgrade testers. In addition, this office staff would create the much needed Big U business processes specific unit functions documentations. Because of their already overloaded existing workload, unit staff firmly believed that it was not their job to serve as the university's functional experts and trainers, to write documentation, and to serve as upgrade testers for unit functions. Furthermore, because of the lack of time to devote to multiple roles, staff stated there were many missed opportunities to leverage many new functions and capabilities offered by the SIS in order to improve business processes.

Summary

In this chapter, the validated composite textural-structural descriptions from the previous chapter were integrated to develop the synthesis composite textural-structural descriptions. Again, the debriefers were asked to verify my data analysis and they validated the accuracy and completeness of my interpretations. The synthesis of composite textural-structural descriptions revealed the essence or the universal experiences of the Big U staff lived experiences in the SIS adoption process. The next chapter will compare findings with literature reviews and discuss recommendations for future research as well as the researcher's concluding thoughts.

CHAPTER 12

FINDINGS AND RECOMMENDATIONS

Introduction

This research study provided a detailed account of the Big U staff's experiences in how change management strategies informed their decision in adopting and using the SIS. By following Moustakas' (1994) four primary steps in phenomenological research and his systematic approach, the inductive data analysis process assist in revealing the essence of Big U staff's lived experiences of change management strategies put in place for the SIS adopting process. After the restatement of the purpose, the findings drawn from the essence or universal experiences will be discussed for the research question and each research sub question as well as other findings emerged from this research study. Findings will be compared to existing literature and triangulated with document review. This will be followed by the researcher's recommendation for future research and concluding thoughts.

Restatement of the Purpose

The purpose of this study informed by phenomenological perspectives was to better understand the lived experiences of Big U staff in the SIS adoption process. Thus, phenomenological perspectives is used in this study to focus on describing how people experience their world and what it is like to be in that world (van Manen, 1990). Given that the past informs the present and both inform the future of adoption, by revealing and

understanding the meaning of staff's lived experiences, this study informs the present in the hope of gaining insight about change management strategies for the future in information systems adoption (Moustakas, 1994, van Manen, 2007; Vickers, 2002).

Discussions of Findings

Research Question: What are the lived experiences of staff in the SIS adoption process at the Big University (Big U) (pseudonym)?

Moustakas' phenomenological induction data analysis process was applied to develop the synthesis composite textural-structural description in order to answer the research question. It revealed the universal experiences of Big U staff going through the change management strategies, namely, communication, training, and functional users support group, and how these strategies inform staff's decision in the SIS adoption process.

The universal experiences indicated that the perceived system attributes of the SIS contributed toward the acceptance or resistance of the SIS which was consistent with the research put forth by Rogers' (1995) five attributes of innovations discussed in the Diffusion of Innovations model and Davis' et al. (1989) perceived usefulness and perceived ease of use discussed in TAM. Rogers (1995) suggested the five attributes of innovations: (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability, can predict the rate of adoption of the innovation. Davis et al. (1989) theorized that attitude is a predictor of intent and intent is a predictor of usage. Staff perceived the SIS as complex and difficult to use. There was high resistant in staff to adopt and use the SIS because they were fearful of the complexity and the high learning curve in trying to learn all the different SIS forms in performing their job processes

caused frustration. In addition, Big U staff perceived the SIS as an inferior system when compared to the legacy system; thus, they believed there was little relative advantage to use the SIS. Moreover, Big U staff felt the SIS was not compatible with their needs because they had to change their existing business processes.

Since the SIS was a mandate system from the university system of the State, Big U upper administration had no control over the choice of implementing another system. Although the SIS functions were perceived as inferior to the legacy system, in some aspect, the SIS allowed Big U to provide students with better and more personalized service. This positive system attribute was communicated and highlighted as one of the goals for the SIS implementation. To combat staff's negative perceptions of the SIS, Big U upper administration put in place change management strategies to assist with that SIS adoption process in order to ensure the success of the SIS implementation. The change management strategies put in place for the SIS adoption process were consistent with the suggestions from Rogers' (1995) Diffusion of Innovations model as well as the critical success factors identified through SIS implementation research.

Rogers (1995) suggested that when forming an implementation team, it is important to include team members who are in the innovators and the early adopters categories. The innovators try out the innovation in order to accumulate valuable information and communicate necessary knowledge about the innovation to team members. The early adopters act as opinion leaders to serve as role models and persuade the majority to speed the adoption of the innovation. Based on the participants' data, the BU implementation team leaders selected for the SIS implementation were innovators whereas the members of the sub-teams were early adopters.

According to the perceptions and experiences, staff felt that the implementation team leaders and members of the implementation sub-teams selected by upper administration to lead the change efforts were keys for the success of the SIS implementation. The team leaders were innovators and were committed to learn and share knowledge about the SIS. The members of the implementation sub-teams were early adopters. They were well respected because of their leadership skills and historical knowledge in the Big U SIS processes. Big U upper administration actively involved these team leaders and sub-teams members to gain buy-in.

Document review of the project scope (see Appendix A) and project charter (see Appendix B) confirmed that the team leaders and members of the implementation sub-teams were responsible for learning and building the SIS, engaging in business process reengineering and documenting new business processes for the new system as well as in making sure staff received appropriate basic and function specific training in order to facilitate the adoption and use of the SIS. It seemed that Big U upper administration understood the sense of end-users involvement was a powerful tool in ensuring commitment in the SIS implementation as well as the ownership in promoting the adoption and use of the SIS.

Research Sub Question 1: What are the lived experiences for staff who received communication about the SIS?

Evidence from the universal experiences indicated staff feared the change to a new system because of the unknown; thus, providing information during the adoption process was crucial. According to Rogers (1995), communication channel is one of the elements within the diffusion of innovation process. It is important to leverage the use of

the appropriate communication channel in providing information to improve perceptions of staff toward the SIS adoption process. Based on the universal experiences, staff felt that written communication, such as informational website about the new system, was not effective during the beginning of the implementation because it was not a system that they wanted. Therefore, there was no interest in reading information about the new system.

Because of the negative perceptions of the SIS, implementation team leaders and members of the sub-teams understood that the most effective communication channel under the circumstances was face-to-face communication during meetings. Thus, information flowed from the implementation team leaders to their team members. Team members in turn communicated to their units. The communication plan documented in the project charter as well as staff's experiences affirmed the effectiveness face-to-face communication. Moreover, in order to move the implementation process forward and to calm staff's fear of the unknown, information sessions as well as demonstration of the new system were provided in order to address staff's concerns. This effective approach is in line with Hall and Hord's (1987) CBAM research.

From this research study, an extreme case demonstrated the lack of information and communication severely impeded staff from adopting and using the SIS. In fact, staff had to reverse back to manual processes because of the lack of leadership support in participating in implementation meetings in order to receive and communicate pertinent information on the SIS implementation to staff.

According to the universal experiences, communication about the SIS after the system went live was just as crucial to keeping staff informed. Big U upper

administration understood this importance and created the SIS office to communicate information about upgrades and system availabilities to keeping staff informed across the university. In addition, for SIS heavy users from unit functions, communication from established FUSGs' on-going meetings served as the main communication tool for information on their specific functions. Information is funnel down to appropriate staff during staff meetings. For SIS light users, they relied on the SIS office website and newsletter to provide them with up-to-date SIS information.

Research Sub Question 2: What are the lived experiences for staff who received training for the SIS?

To progress in the Level of Use as outlined by Hall and Hord (1987), staff were provided with basic SIS training by the SIS office. This basic SIS training served as the foundation for unit staff in preparation of the function specific training. In general, staff appreciated the trainer's positive attitude and felt the basic training helped them in adopting and using the SIS. In an effort to triangulate data collected through this research study, the SIS training evaluation survey results (see Appendix G) were reviewed. The results and comments from the SIS training evaluation survey results corroborated with the universal experiences in which staff felt the basic training helped them toward adopting and using the SIS.

In addition to the basic SIS training, team leaders and members of implementation sub-teams served as function specific trainers and change facilitators during the SIS implementation. They pointed out benefits of new SIS and how the new SIS could make staff's life better and easier. Moreover, during the initial SIS implementation, the implementation sub-teams created SIS documentation for Big U business processes for

each functional unit as outlined as part of their responsibility in the project charter. The two-tier training along with the availability of SIS documentation created for Big U business processes were crucial to the success of the adoption and use in the SIS during implementation as well as after the system went live because it provided trialability and observability (Rogers, 1995) in which staff were able to learn the SIS in a safe environment provided by the training database as well as to use the SIS to perform their job functions by following the documentation.

From the research study, an extreme case was uncovered and demonstrated the importance of the two-tier training as well as the availability of SIS documentation create for Big U business processes. The Unit B functions implementation occurred 3 years after the initial SIS implementation. There was no formal project charter to specific responsibilities for the Unit B functions implementation team members. Due to the lack of clear expectation, the Unit B functions implementation team did not create SIS documentation with Big U business processes for Unit B functions. In addition, to ease staff's resistance, Big U upper administration hired vendor consultants to build all the Unit B functions. The seven Unit B functional team members received general training from the vendor consultants using generic documentation instead of Big U business processes. Since team members did not build the Unit B functions, they did not thoroughly learn the complicated system. They were not confident that they could serve as functional experts and trainer for the Unit B functions. Thus, there was no formal training or documentation for new Unit B functions users. However, unit staff stressed the importance of having SIS documentation with Big U business processes and worried that without documentation Big U would suffer knowledge loss when staff from

implementation team retired or left for other employment.

New management level Unit B function staff were shocked and expressed disbelief that they had to rely on the generic documentation to teach themselves how to use the Unit B functions. Staff were frustrated that the university upper administration lacked long term planning in providing on-going and continuous support for Unit B functional training. Thus, some Unit B functions staff were grateful that their college upper administration was supportive and funded the hiring of a retired managerial staff member that was part of the Unit B functions implementation to serve as a trainer and to build and maintain the Unit B functions. Meanwhile, staff continued to use the legacy system SIS Unit B functions whenever possible.

Research Sub Question 3: What are the lived experiences for staff who participated in a SIS functional users support group?

During the SIS implementation, implementation sub-teams were formed to focus on all the functional units scheduled to go live. There were fifteen implementation sub-teams to cover all the major functional and technical units. Implementation sub-team members were selected by upper administration within their respective units, some of whom were highly visible resisters of the new SIS, to create buy-in for the new SIS. The set up of the various functional implementation sub-teams as well as having clear expectations and guidelines from project charters incorporated all the elements from the critical success factors of a successful implementation indicated in ERP implementation research as stated by Garcia-Sanchez et al. (2007) and Nah et al. (2003).

The Big U team leaders were charged to retain holistic knowledge of the project and to keep the implementation team informed of their implementation sub-teams' issues

as well as progresses by attending the bi-monthly meetings where key dependencies issues were discussed. They were also responsible for coordinating all SIS building and testing activities amongst implementation sub-team members. All implementation sub-teams were directed to ensure operational business processes aligned with the SIS functions and provide job processes documentation as well as function specific training for their respective units. From the universal experiences, staff affirmed that working with team members from various units enabled the breakdown of the silos from across the university. Staff gained understanding and respect of each other's units; thus, staff were better able to work together.

After the SIS went live, most implementation sub-teams evolved into FUSGs that kept on-going meetings to keep each other informed on issues as well as for emotional support. FUSGs also served as a learning tool to keep up with the different ways to use the system. Eventually some FUSGs evolved into various university committees and met periodically to discuss and monitor SIS specific function issues related to their unit.

Staff agreed that FUSGs were significant and essential to the success of the implementation because the networking provided accessible support. Staff affirmed they learned about the inter-connectedness among all the units from participating in the FUSGs. They appreciated the collaboration the team had demonstrated in making sure the SIS implementation and upgrades were coordinated such that the SIS ran smoothly for the university. The support received from their FUSGs was vital to the staff from various functional units' positive experience toward the implementation and upgrades. Friendship, loyalty, ownership, accountability, trust, respect, involvement, buy-in, consensus building, team work and collaboration, networking as well as emotional

support grew out of these groups and made it possible to endure the hardships of such a large scale implementation. Staff cherished the personal relationships and team bonding that grew out of the implementation team and sub-teams that evolved into FUSGs.

Research Sub Question 4: What are the implications that can be drawn from the participants' lived experiences?

Because the SIS was a mandated change, Big U upper administration acknowledged and planned for the potential barrier from the resistance to change. As a result, change management strategies, namely, communication, training, and functional users support group, along with the different levels of leadership support were put in place to assist with the adoption and use of the SIS. Strong endorsement from Big U upper administration was visible during the initial SIS implementation. Effective strategies were employed such as end-users involvement to create buy-in and ownership in addition to top-down as well as bottom-up communication about goals, objectives, and deadlines.

Team leaders and members of implementation sub-teams took ownership leading the change with a positive attitude. They evaluated business processes to make sure they aligned with the SIS and created SIS documentation with Big U business processes. In addition to the basic SIS training provided by the SIS office, team leaders and members of implementation sub-teams served as function specific trainers to prepare unit staff before the SIS went live. These strategies aligned with Rogers' (1995) Diffusion of Innovations theory, Hall and Hord's (1987) CBAM research, and Davis' et al. (1989) TAM theory to ensure user acceptance. The universal experiences indicated that the success of the Big U SIS adoption and use after the initial SIS implementation was

greatly enhanced by these planned change efforts that incorporated most of the elements from the critical success factors of a successful implementation indicated in ERP implementation research as stated by Garcia-Sanchez et al. (2007) and Nah et al. (2003). Thus, Big U upper administration declared the success of the SIS implementation when the project was completed on time and under budget.

While the universal experiences reflected the success of the initial SIS adoption and use, a very different picture emerged for the SIS post-implementation. Although staff appreciated the upper administration support in creating the SIS office to provide general functional support, perform basic SIS training, and coordinate upgrades and testing, it did not fully meet the needs of functional units for SIS heavy users.

This research study uncovered the function unit staff‘s perceptions in the lack of on-going support for the SIS post-implementation from the Big U upper administration. Findings indicated negative feelings from unit staff were exasperated because the university upper administration expected functional unit staff to assume the role of on-going functional-technical experts within their unit. In many instances, this role was not part of the college unit staff’s initial job descriptions. Staff stated that there was no buy-in from colleges’ upper administration to allow members of implementation sub-teams selected from the various units among the colleges the time to serve the role as unit functional-technical experts after the SIS went live. Unit staff were expected to devote their time to conduct business processes for their respective colleges after the SIS went live. For unit staff not within colleges, they were expected to serve multiple roles, including the role of functional-technical experts. Because of the lack of time to devote to multiple roles, unit staff stated there were many missed opportunities to leverage many

new functions and capabilities offered by the SIS in order to improve business processes.

Even though unit staff understood the importance of having unit specific functional-technical experts in supporting the on-going adoption and use of the SIS and ensuring unit functions worked properly, because of workload issues, unit staff affirmed they did not have the time necessary for them to serve the role as the functional-technical experts in which they were expected to troubleshoot functional issues, perform as unit function specific trainers and upgrade testers as well as to create and maintain Big U business processes documentation in addition to their regular job duties. Staff mentioned Big U suffered knowledge loss when staff from implementation team retired or left for other employment. Thus, unit staff stressed the importance of continual leadership support for the SIS post-implementation to provide staff the needed function specific training and support in order to ensure continual adoption and use as well as to maximize benefits of what the SIS had to offer.

Because of my intimate involvement with the Big U SIS implementation, I shared the belief of the initial SIS implementation success. Once the SIS went live, I was involved in the daily operation of the SIS office in providing basic SIS training and general functions support for the university. Through the training evaluation survey results and the SIS office customer service survey results, staff affirmed they were satisfied with the general functions support provided by the SIS office. Thus, I was surprised to find such high level of dissatisfaction in on-going unit function specific training and support. In addition, since I was not involved in the Unit B functions implementation in 2005, I was not aware that there was no documentation for the Big U Unit B functions business processes and no formal training for new Unit B functions

users.

During the initial SIS implementation, there was buy-in from all leadership and staff level for implementation team leaders and sub-team members to serve as unit function experts in which staff were responsible for troubleshooting unit functions, providing function specific training, and creating as well as maintaining unit function documentation. However, from the universal experiences, staff affirmed that the commitment to serve as unit function experts was only for the duration of the SIS implementation. Although staff continued to assume the unit function expert role after the SIS went live, the findings of this research study indicated the strong negative feelings toward upper administration in the lack of on-going unit functions support. For Unit B function staff, they stated that they had repeatedly submitted their unit evaluations to upper administration for the past several years requesting on-going unit function support for Unit B functions but to no avail. Clearly the expectation of ownership in providing on-going unit function support after the SIS went live was quite different between Big U upper administration and unit functions staff.

When performing document review for this research study, one of the project scope deliverables for the initial SIS implementation stated "all maintenance and support responsibilities will be turned over to the appropriate functional and technical groups by 12/31/2002." Although this statement existed in the project scope, I was not sure how clearly this ownership expectation for on-going unit function support after the SIS went live was communicated to the unit functions staff and their management. Furthermore, most of the unit functions staff within colleges that were part of the initial SIS implementation as well as the colleges' upper administration had either retired or left Big

U. Thus, the new unit functions staff and colleges upper administration were unaware of the university upper administration's expectation of ownership for unit staff in providing on-going unit function support and serving as the unit function experts. My surprise in the research findings about the high level of negative feelings from unit staff due to the lack of on-going functions support prompted me to perform literature reviews in ERP post-implementation evaluation.

Other Findings Emerged from This Research Study: Leadership support

In addition to support in the form of FUSGs, through the descriptions of staff's experiences, leadership support at different levels emerged as a crucial factor toward the success of the SIS implementation. Change management strategies provided by the upper administration at Big U included most of the critical success factors identified through the SIS implementation research. At the highest level of support, a SIS Steering committee was formed in which the associate provost served as the project champion and provided a clear vision statement for the SIS implementation project.

External expert project management consultant and expert functional vendor consultants were hired to provide the necessary project task lists and milestone as well as the crucial training to transfer the SIS knowledge to team leaders and members of the implementation sub-teams. An internal SIS functional expert was also hired to develop a training plan for university-wide SIS users in providing first-tier general basic SIS training. End users involvement from the implementation team and sub-teams were ensured by providing funding for backfill positions to allow members to focus on performing the large amount of work involving the implementation tasks.

In addition, staff felt the creation of the SIS office as the SIS went live was

essential because the SIS office facilitated all of the upgrades, acted as a liaison between the functional and the technical staff, provided all of the on-going communications and updates regularly to SIS users. In addition, staff were satisfied with the basis SIS training and accessible general functional support provided by the SIS office. In an effort to triangulate data collected through this research study, the SIS office customer services survey results (see Appendix H) were reviewed. The results and comments from the SIS survey results coincided with the universal experiences in which staff were satisfied with the accessible and responsive general functional support provided by the SIS office in helping them toward adopting and using the SIS.

Through the universal experiences, staff's negative feelings were exasperated because of the lack of university level support for unit functions support to troubleshooting issues. For Unit B functions that went live three years after the initial SIS implementation, FUSG3 was the only resource the Unit B staff had for accessible support. FUSG3 members met regularly to keep each other informed on issues as well as for emotional support. The support received from FUSG3 was vital to Unit B staff to survive the go live of the Unit B functions as well as subsequent upgrades.

Recommendations for Future Research

Agee, Yang, and the 2009 EDUCAUSE current issues committee conducted a survey to identify information technology issues of top concern to higher education technology leaders. Survey participants were typically Chief Information Officers of EDUCAUSE member institutions which comprised more than 2,200 colleges, universities, and educational organizations, including 250 corporations, with more than 17,000 active members. Survey results indicated in the past decade higher education ERP

implementation focused in the administrative functions in an attempt to address financial and student information needs; however, leading vendors now offer software applications integrating to the administrative ERP that address numerous other functions such as admissions and enrollment management, web front-end applications, and business intelligence systems (Agee & Yang, 2009). These ERP integration implementations promise great improvements in operational efficiency and greater value to institutions' customers. Thus, with the abundance of software applications available, administrators are caught up in the seemingly never-ending software application implementations to integrate with the existing administrative ERP system in order to leverage its capabilities and to gain a competitive edge.

In reviewing literature in ERP post-implementation evaluation in the higher education sector, research from Cramer (2005), Gemmell & Pagano (2003), King, Kvavki, & Voloudakis (2002), Mahon (2009), and Swartz & Orgill (2001) mainly focused on CSFs and best practices for successful implementation as well as guidelines in selecting best fit integrative software applications. Due to the continuing wave of deployment of ERP integrations implementation, higher education administrators are eager to gain more information on ERP implementation.

On the other hand, some research in post-implementation evaluation associated with business in various industries sector seemed to focus on maximizing value and return on investment from the implemented ERP systems. Yu and Chien (2005) stated "completing ERP implementation is not the final goal/stop but a "go live" point/start" (p.117). Willis and Willis-Brown (2002) agreed with Yu and Chien's (2005) assessment and further stated that "the mistakes that companies make is to see the "go live" point as

the final goal or destination" (p.36). Moreover, Willis and Willis-Brown (2002) suggested that ERP post-implementation evaluation should focus on "the actions that are taken after ERP is implemented to enable the organization to maximize value and return on investment" (p.36). Unfortunately, because the cost of implementing an ERP is high, management tends to be anxious to declare victory and move on to other projects (Nicolaou & Bhattacharya, 2006).

From the industries SIS post-implementation evaluation research findings, one prominent fact for ineffectiveness of the post-implementation ERP system is lack of on-going user support (Nicolaou & Bhattacharya, 2006; Ross & Vitale, 2000; Welch & Kordysh, 2007). Welch & Kordysh (2007) stated that for organizations to reap maximum benefits from ERP systems, long term post-implementation planning for on-going user support structure and resources must be in place to ensure adoption and use of the system as well as to fully leverage the ERP capabilities.

In light of the findings from the industries post-implementation evaluation research study, higher education administrations need to explore the concept that "go live" point of any system implementation is not the final goal. All the effective planned change efforts put in place to ensure a successful implementation will not be fully realized if long term post-implementation planning is not put in place to reap the benefits of the ERP to fully capitalizing the system's capabilities. Given that the significant human and financial investments in ERP implementation, it is essential that research in higher education SIS post-implementation evaluation examines: (a) How can higher education administrations create buy-in for functional users to assume ownership in serving as unit experts to provide function specific training and maintain university

business processes for the ERP system with their already overloaded workload? (b) How can higher education administrations better retain functional and technical knowledge in the SIS post-implementation? (c) What roles do higher education administrations need to play in capturing, transferring, and managing functional and technical knowledge in the SIS post-implementation? (d) What are the opportunity costs of investing resources in unit functional-technical staff to provide on-going support for function specific training and documentation? What are the costs of not doing so?

Concluding Thoughts

In chapter 1, I mentioned that according to information system implementation research, most implementation failures are contributed to by organizational- and people-related issues (Adams, Berner, & Wyatt, 2004; Hirschheim & Newman, 1988; Jiang, Muhanna, & Klein, 2000; Klaus, 2006; Kwahk & Lee, 2008). Regardless of the type of organizations, whether it is higher education, K-12, business, or banking, organizations face similar challenges when it comes to technology adoption with a complex social environment.

SIS implementation involves people and it is their implementation experiences that will offer invaluable pragmatic insights to accomplish successful SIS implementation. Thus, understanding why people accept or reject information technology was one of the most challenging issues in information systems research (Davis et al., 1989). In addition, it is inevitable for innovations adoption to involve unwanted change; therefore, it is necessary for organizations to plan for it. However, not all changes are successful, even when there is a significant planning effort made. Organizations need to investigate what change management strategies to put in place to influence staff's

attitudes toward the technology being adopted.

Although this research is based on SIS implementation and the use of change management strategies in one organization, it is a study of the relationship between an information system implementation and the influence of the planned change efforts to help users with technology adoption. According to Straub (2009), "this decision of whether an individual will adopt a particular technology and the time frame involved with that decision has been a long source of research across multiple disciplines, and it influences business, school, and everyday life" (p.625). Therefore, the findings of this study will be useful for disciplines such as organization development, information system implementation research, and technology adoption, where people and unwanted change in technology adoption are involved.

This research study revealed the lived experiences of university staff going through a large scale ERP implementation and the importance of having change management strategies such as communication, training, and functional users support group to ensure adoption and use of the SIS. In addition, the findings revealed the lived experiences of university staff's devastation and frustration of not having long term post-implementation on-going functional support.

Staff mentioned Big U suffered knowledge loss when staff from implementation team retired or left for other employment. Staff turnover had been identified as one of the reasons of knowledge loss in organizations (Carcary, Long, & Remenyi, 2006; Mason & Pauleen, 2003). When staff turnover is combined with a lack of on-going unit functions support in providing training and maintaining business processes documentation, the effectiveness and efficiency of institutions' day-to-day operations can be greatly

impacted by user resistance (Carcary, Long, & Remenyi, 2006; Davis et al. 1989; Hall & Hord, 2001; Mason & Pauleen, 2003; Rogers, 1995), productivity, and data integrity issues (Shaw, DeLone, & Niederman, 2002; Willis & Willis-Brown, 2002).

A favorite saying of my committee chair, Dr. Shoffner, is that 'change happens one person at a time' no matter how complex the organization. Since innovation adoption is a continuous process according to most adoption and diffusion theories, "the decision to or not to adopt an innovation can be a one-time event, the route that leads to one's decision does not take place in a vacuum. Beliefs and attitudes are formed over time, which in turn may influence decisions" (Straub, 2009, p.628). Thus, in order to reap maximum benefits of the costly ERP system, adequate resources must be allocated to provide on-going user support, from pre-implementation to post-implementation, to ensure effective and efficient use of the implemented system.

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APPENDIXES

APPENDIX A

Document Review

Project Scope

Please note that all identifiable information has been replaced with pseudonyms.

Project Name: Big U SIS Implementation	
Project Sponsor: Provost	**Project Leaders: University Registrar & Associate Provost**
Project Start Date: 5/17/2000	**Project End Date: 12/31/2002**
Objective: To implement the selected SIS modules, a selected Unit B functions system, and other selected ancillary systems, all of which will be identified and scheduled in Deliverable #1 below. All of the selected SIS modules, the selected Unit B functions system, and any selected ancillary systems will be in production no later than 8/1/2002. Post-implementation clean-up will be completed no later than 12/31/2002. The total cost of the project will not exceed the proposed project budget of $XXM. It is understood that the *QUALITY* of this implementation will take precedence over both the *SCHEDULE* and the *BUDGET*. The goal is for this to be the most positive implementation of SIS in the University System of the State.	
Narrative: The Board of Regents of the University System of the State has selected the SIS as the standard Student/Financial Aid system for the institutions that make up the System. Big U has been using its 'home grown' legacy student system since the mid-1980's. Although the legacy system has been enhanced and maintained over the last 15+ years and continues to provide considerable functionality, the University has decided that now is the time to migrate to the SIS. Several reasons for moving to the SIS include: • Increasing cost and difficulty in maintaining the 15+ year old legacy student system. • More current technologies that are used by SIS including Client/Server, Oracle relational database, Windows GUI, and Web based functionality available to students, faculty, and administrative functions. • The advantage of purchasing a system from a large software company with the resources to develop for, and support as many institutions as the vendor does.	

• The advantage provided by the Board of Regents technical group, which develops and supports functionality required by Federal and State regulation for all of the Institutions of the University System of the State.	
<u>Deliverables</u>: ***(Tangible and intangible products, processes, results and services)***	**<u>Boundaries</u>:** ***(Empowerment limits and project constraints)***
1. A document that identifies the specific SIS modules to be implemented and their 'go live' dates will be developed during the planning phase of the project. The document will also identify the specific Unit B functions system and any ancillary systems that will be implemented along with their 'go live' dates.	1. Project participants will strive to minimize negative impact of the SIS implementation project on the operations of the University. Although project participants will be relieved of some of their regular responsibilities, it is understood that they will continue to be involved in the operations of the University.
2. Detailed project plans will be developed and procedures for monitoring and tracking progress against the plan will be developed and implemented.	2. The Implementation Team and Sub-Teams will not be empowered to set University policy. Recommendations for changes to University policy will be raised to the Steering Team.
3. A plan for communicating project status, upcoming activities and events, and general information about the SIS project will be implemented so that the University community is kept informed.	
4. Contingency plans for likely problem scenarios will be developed.	
5. An easy to use, end-user reporting environment will be designed and implemented as part of this project. Critical, must have reports, that are not provided as part of the purchased system will be developed and available prior to module 'go live' dates.	
6. The selected SIS modules, the Unit B functions system, and all ancillary systems will be completely tested prior to their 'go live' dates to ensure that they are ready for production.	
7. End-users will be adequately trained in the use of the system prior to module 'go live' dates.	

8. Technical and end-user documentation will be developed and available prior to module 'go live' dates.	
9. The post-implementation stabilization for each of the SIS modules, the Unit B functions system, and all ancillary systems will be completed within 3 months after their 'go live' dates.	
10. Processes and procedures for operating the SIS in a production mode will be developed and implemented by 12/31/2002.	
11. All maintenance and support responsibilities will be turned over to the appropriate functional and technical groups by 12/31/2002.	
12. The SIS project team will be de-commissioned at the end of the implementation project – 12/31/2002.	

APPENDIX B

Document Review

Big U Implementation Sub-Team Charter

Please note that all identifiable information has been replaced with pseudonyms.

Team:	***Unit C Functions***
Purpose:	The *Unit C Functions Sub-Team* is primarily responsible for implementing the appropriate SIS modules and their integration with the appropriate third-party system. Additionally, the Team will support the implementation of the other SIS modules, the selected Unit B functions system, and other selected ancillary systems.
Team Sponsor:	University Registrar, *Implementation Team* Leader
Team Members:	• Brad, *Unit C Functions Team* Leader • Ivanna • Katrina • Francis • Jamie • Sally, technical support
Resources:	• Faculty member TBD • UIS programmer TBD
Duties of this team:	1. Identify Needed Resources. To identify resources needed for the project and communicate these needs to the *Implementation Team*. 2. Project Plans. To assist in the development of implementation project plans and be responsible for providing status updates for tasks and activities that have been assigned to them. 3. Plan Execution. To ensure that the project plans are executed and that the system is implemented on time and within the approved budget. 4. Communication. To communicate and coordinate with the

	Implementation Team, all end-users, University students, and project stakeholders. 5. Communication Plan. To ensure that the communication plan is implemented and to carry out audits to ensure that effective communication is occurring to the *Implementation Team*, end-users, University students, and project stakeholders. 6. Analysis of current business processes. To analyze current business processes and to suggest possible reengineering opportunities to take advantage of SIS processing. 7. System interfaces. To assist in identifying requirements for system interfaces: a. from existing Big U systems to SIS Student (and other systems implemented as part of this project) and, b. from SIS Student (and other systems implemented as part of this project) to existing Big U systems. 8. System Set-Up. To optimally configure the SIS Student-Financial Aid system and selected ancillary systems to satisfy the academic and business needs of the University. 9. System Security. To design and implement the required security features. 10. Training. To work with the in-house SIS trainer to develop an overall plan for training end-users including identifying who will be trained, when training will occur, what subject matter will be covered, the development of training materials, and the delivery of the training. 11. Testing. To develop and execute test plans and to ensure user acceptance of the SIS Student-Financial Aid system prior to moving it into production mode. 12. De-commissioning legacy system. To assist in planning for the de-commissioning of the legacy system. 13. Transition to SIS. To ensure a smooth transition from the legacy system and legacy Unit B functions to SIS. 14. Transition to Production Mode. To ensure a smooth transition from 'implementation mode' to 'production mode'. 15. Response to Problems. To develop contingency plans for likely problem scenarios and as problems arise to effectively deal with them to minimize their impact on the project and the University. 16. Vendor Performance. To assess and provide feedback to project vendors to ensure quality performance and service for the University. 17. Pro-SIS PR. To continuously sell the benefits of SIS to the University community.
Success Measures:	1. The Team's primary success measure is that: a. The appropriate SIS modules will be in production

	(and fully integrated with Unit C functions third party system) to support Summer 2002 term Unit C functions no later than 9/30/2001. 2. In support of the implementation of the other SIS modules, the selected Unit B functions system, and other selected ancillary systems, the Team's <u>secondary</u> success measures include: a. The SIS Unit A modules will be in production to support the Summer 2002 term no later than 10/31/2001. b. The SIS Unit E module will be in production to support the Fall 2002 semester no later than 1/31/2002. c. General Person information from legacy system will be converted and loaded into SIS to support the Summer 2002 term no later than 1/31/2002. d. General Student information from legacy system will be converted and loaded into SIS to support the Summer 2002 term no later than 2/28/2002. e. Academic History from legacy system will be converted and loaded into SIS to support the Summer 2002 term no later than 3/31/2002. f. The SIS Unit G and Unit F modules will be in production to support the Summer 2002 term no later than 3/31/2002. g. The selected Unit B functions system will be in production no later than 8/1/2002. h. The production SIS Alumni & Development and Housing modules will be integrated with SIS as part of this project. This will result in a single, integrated database supporting all of the installed SIS modules. 3. Post-implementation clean-up will be completed no later than 12/31/2002. 4. End-users will be adequately trained in the use of the system prior to module 'go live' dates. 5. An easy to use, end-user reporting environment will be designed and implemented as part of this project. Critical, must have reports, that are not provided as part of the purchased system will be developed and available prior to module 'go live' dates. 6. Technical and end-user documentation will be developed and available prior to module 'go live' dates. 7. Processes and procedures for operating the SIS system in a production mode will be developed and implemented by 12/31/2002. 8. All maintenance and support responsibilities will be turned

	over to the appropriate functional and technical groups by 12/31/2002. 9. The SIS project team will be de-commissioned at the end of the implementation project – 12/31/2002. 10. This project will be completed at or under the approved budget.
Budget:	The approved budget for the SIS Implementation Project is $XX M.
Boundaries:	1. During the project, the *Unit C functions Team* will strive to minimize negative impact on the operations of the University and customer service to the University community (students, faculty, and staff). 2. There will be a "freeze" on non-critical enhancements to the legacy student information system and to the legacy academic Unit C functions. Modifications to legacy system and legacy academic Unit C functions will only be made to fix 'broken' code, to correct corrupted data, or if the modification is required to satisfy mandated/legislated requirements.
Operating Guidelines:	1. The *Unit C functions Team* will receive direction from and be responsible to the SIS Implementation Team. 2. The *Unit C functions Team* will meet twice per month during the life of the project, or more often as needed. 3. The *Unit C functions Team* will be a model for effective team processes. 4. The *Unit C functions Team* will make decisions through consensus and then represent the team as a whole. 5. The *Unit C functions Team* will communicate their activities, decisions, and action steps, as appropriate, to various project personnel.
Ground Rules:	1. Agendas for *Unit C functions Team* meetings will be sent out at least 72 hours in advance. 2. Meeting minutes will be circulated within 48 hours of each meeting. 3. Respect confidentiality 4. Team member etiquette: a. Come prepared b. Participate c. Complete assignments d. Be an active listener e. Stay focused f. Project a positive attitude g. Critique an idea, not the person

	5. Respect other's ideas/opinions/roles: a. Be open-minded b. Don't interrupt while others are speaking 6. Be respectful of other and individual roles 7. Be committed to the project 8. Meeting courtesy: a. Arrive on time b. Start on time c. Stay for the entire meeting d. Inform meeting leader before meeting if unable to attend or need to leave early e. Turn off your cellular phone or switch to vibrator mode

APPENDIX C

Epoché Process performed by researcher before the pilot study

Researcher's reflections using the Individual Participant Interview questions

Questions	Reflections
Please take a few minutes and tell me about yourself in reference to your SIS usage – that is how much do you use SIS and in what ways do you use it.	I am an expert user who uses SIS daily. It is part of my job to learn as much as I can about SIS so I can support SIS end-users within the university. In my job I am expected to be the functional expert for general functions as well as a technical liaison for SIS. I familiarized myself with SIS by reading the documentation provided by the vendor as well as joining functional and technical list serves to build a support network to learn more about SIS.
Please tell me about your experience about the change when the SIS was implemented.	I was hired as a trainer when Big U just started to implement the SIS. I remembered a lot of resistance from management as well as staff because I was told that SIS was not the product of choice for Big U. Because I came with SIS experience and went through the SIS implementation from my previous institution within the State system, I felt very welcomed by managers and staff alike at Big U. However, at times I was overwhelmed by the demand of serving as the only in-house expert as well as resource to help the implementation team in addition to planning, developing and rolling out the SIS training program for the entire university. I remembered working 80-hour weeks and still felt like I could not catch up with my workload.
Tell me more about your experience when you went through the change management strategies related to the SIS implementation (i.e., communication, training program, and functional users support group), especially how you	From the implementation team member standpoint, I felt like the communication from upper administration was at times confusing because of the change of project leadership at the beginning of the project. When the project leadership settled about 6 months after the initial start of the project, communication was much

felt and acted, and what you said.	better. As for the communication among the implementation team, it was excellent. The communication among team leads and their team members was also excellent. The project leadership also communicated well with the project sponsors to get the support we need from various upper administrations from the colleges. I think that was the reason for buy-ins from top to bottom of the university. As for the training I received as an implementation team member from the vendor consultant, they were excellent after we interviewed and hired a full time onsite consultant. As I was the in-house trainer for the university, the feedback I received from the university was that the in-house SIS general training program was effective. I also facilitate the implementation of customized training for each implementation team where the team members create the training documentation specific for their own area and conduct their own area training. I felt and still feel that all these different level of training in place was the key to our implementation's success. The functional users support groups were another key support mechanism for users to learn from each other as well as discuss and resolve issues. They offered members an opportunity to see the big picture since they were exposed to one another's issues.
Do you think you adopted and used the SIS? By adopted, I mean the actual use of SIS to perform your job functions with adapted best practice processes. If so, tell me your experience in adopting and using the SIS. If not, tell me why not.	I had definitely adopted and use SIS. Since I am the gatekeeper of best practices, I believe in leading by example and follow the policies and procedures when it comes to using SIS. However, I know not all unit staff follow best practices and it is frustrating when we have to clean up inconsistent data.
How supported did you feel when it came to adopting and using SIS especially in the area of communication, training and functional users support group?	When it came to being part of the implementation team, I felt quite supported from upper administration. We received the necessary SIS training as well as soft skills training to better prepare us to lead the implementation. As implementation team members, we were offered

	leadership and team building skills development from an expert consultant firm. We had retreats to build team rapport and to discuss implementation issues at hand. We went to the SIS conferences to build our external network and to stay abreast of the SIS knowledge we need. Lastly, we had the bi-weekly FUSG1 meetings as well as the Implementation team meetings to keep open line of communication through the implementation project.
What dimensions, incidents, and people intimately connected with the experiences in SIS adoption and going through the change management strategies stand out for you?	Because of the constant communication and the need to work very close together in the central implementation office, the friendship I made during the implementation that was carried over well after the implementation was what stood out for me. I treasured the bond that was fostered by the personal connections with other team members through weathering the politics of a big implementation together, as well as learning and growing together.
How did these experiences affect you? What changes do you associate with these experiences?	These experiences opened my eyes and gave me first hand experience to the detrimental and negative impact of how politics can destroy a project no matter how well planned it was. It gave me a better understanding of how stable and supportive leadership could make or break a project.
What feelings were generated by your experiences in going through the change management strategies (communication, training, and if applicable, functional users support group)?	I felt that the buy-in from key team leaders who acted as change agents were critical because they were the key communication channel to the bigger staff audiences. Also, it was important to receive training from a functional expert who knows the system. The vendor sent consultants who were still learning the system and did not know most of the answers to our questions; thus, it did not create credibility as a trainer and the training did not go well at all. However, the training improved when we interviewed and hired a full time competent onsite functional expert from the vendor. It is important not to accept incompetent consultants as trainers from vendor and not be afraid to discuss with vendors about the quality of their consultants.
What thoughts stood out for you?	On the one hand, the challenges of dealing with

	the power of user groups and their resistance as a group. On the other hand, the power of network and team collaboration to create buy-in and break down silos.
Did you change in anyway that you are aware of as you went through the change management strategies related to the SIS adoption?	I changed from being just a team member, trying to do what was told and to do what needed to be done, to being a confident leader that provided ideas and solutions to arising issues. I learned that it took a lot of work to build credibility but it didn't take much to lose it. Thus, I learned to be diligent and research the information I needed before I responded to questions. I also learned that honesty in admitting you didn't have all the answers but were willing to find them went a long way in building credibility.
What did you think was the most important thing in supporting you in your adoption and use of SIS?	I thought the most important thing in supporting me in adoption and use of SIS were the resources provided to me such as attending conferences to learn more about the SIS as well as having internal and external network support to seek out the knowledge I needed.
What did you like most about the support you received toward your adoption and use of SIS?	The team's friendship and emotional support during the implementation that carried over after the completion of the project.
What did you like least about the support you received toward your adoption and use of SIS?	The confusion that caused by the politics and unstable leadership at the start of the project.
Can you think of anything else you want to share with me with reference to the experiences in going through the change management strategies and SIS adoption?	Overall, the implementation was a positive experience for me. The lifelong friendship I made from the implementation is invaluable. After 9 years, I still kept in touch with some implementation team members who had retired or who had left Big U.

APPENDIX D

Informed Consent Form for Individual Interview

Title: University Staff Perspectives on Change Management Strategies in Student Information System Adoption

Principal Investigator: Dr. Mary Shoffner

Student Researcher: Winnie Tsang-Koşma

Sponsor: N/A

I. Introduction/Background/Purpose:

You are invited to take part in this study. The goal of this research is to learn from your experience in adopting the SIS so we can better prepare staff for new technology adoption.

II. Procedures:

If you decide to take part in the study, the interview questions will be sent to you before the scheduled interview. During this study, you will be interviewed by the Winnie Tsang-Kosma. There will be two 1 ½ hour interview sessions for each participant. A total of six individual participants will be interviewed. In addition, members of two SIS functional users support groups will be interviewed for a 2-hour interview session. All interviews will be audio-tape recorded.The recorded data from the interviews will be written out into text for examination. Any mention of people, places, or things by you during the interviews will be masked. The text will be sent to you to review and you have right to delete or change anything that might reveal the confidential information related to you. The interviews will be conducted face-to-face at an on-campus location as agreed to by the participants and the student researcher.

III. Risks:

The interview involves minimum risk to you as a participant in this study. The study will only ask you to think about and describe your experiences involving communication, training, and functional users support groups and how these expericences relate to your adoption of the Student Information System.

IV. Benefits:

Taking part in this study may not help you personally at this time. We hope to gain a better understand in what change approaches to use for new technology adoption. We also hope to better prepare staff to adopt new technology.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

VI. Confidentiality:

All information collected for this study will be kept confidential to the extent allowed by law. You will not be identified except by a code in the form of a false name. The code will be used to mask any personal information. All information collected which include the code file, the recorded digital tapes, and the transcription will be saved in a firewall and antivirus-protected computer at the student researcher's (Winnie Tsang-Kosma) locked private office at the Big U and will be protected by a computer log in password and a different document security password for each document. All hard copy documents will be kept in a locked filing cabinet. Only authorized research personnel have access to the computer and the locked filing cabinet.

Whatever personal information gathered during the interviews will be deleted when the study is presented and/or its results published. Any mention of people, places, or things during the interviews will be masked. The recorded data will be written out as text and it will be sent to you for review. You have the right to delete or change anything that might reveal the confidential information related to you. Only the approved text will be used for data analysis and consequently for the completion of the dissertation, conference presentations or publications.

Your name and other facts that might point to you will not appear when the study is presented or published. The findings will be summarized and reported in group form. You will not be identified personally.

VII. Contact person:

Please feel free to contact Winnie Tsang-Kosma at XXX-XXX-XXXX or by email, BBB@xxxxx.xxx, if you have any questions about this study.

If you have questions or concerns about your rights as a participant in this research study, you may contact the Office of Research Integrity at XXX-XXX-XXXX or AAA@xxxxx.xxx.

VIII. <u>Copy of Consent Form to Subject:</u>

You will be provided with a copy of this consent form for your personal record.
If you agree to participate in this research and to be audiotaped, please sign below.

_____
Participant's Printed Name

_____ _____
Participant's Signature **Date**

_____ _____
Student Researcher's signature **Date**

Consent Form Approved by Big U IRB June 12, 2009 - June 11, 2010

APPENDIX E

Informed Consent Form for Functional Users Support Group Interviews

Title: University Staff Perspectives on Change Management Strategies in Student Information System Adoption

Principal Investigator: Dr. Mary Shoffner

Student Researcher: Winnie Tsang-Koşma

Sponsor: N/A

II. Introduction/Background/Purpose:

You are invited to take part in this study. The goal of this research is to learn from your experience in adopting the SIS so we can better prepare staff for new technology adoption.

II. Procedures:

There will be two 1 ½ hour interview sessions for each participant. A total of six individual participants will be interviewed. In addition, members of two established SIS functional users support groups will be interviewed for a 2-hour interview session.

Since you are invited to participate in the functional users support groups interview, you will be notified in advance of all the invited group participants so that you may choose whether or not you wish to participate. If you decide to take part in the study, you should not repeat any information discussed from the group interview.

The interview questions will be sent to you before the scheduled interview. During this study, you will be interviewed by the Winnie Tsang-Kosma. Members of two established SIS functional users support groups (FUSG) will be interviewed. Each FUSG will participate in a 2-hour interview session. All interviews will be audio-tape recorded. The recorded data from the interviews will be written out into text for examination. Any mention of people, places, or things by you during the interviews will be masked. The text will be sent to you to review and you have right to delete or change anything that might reveal the confidential information related to you. The interviews will be conducted face-to-face at an on-campus location as agreed to by the participants and the

student researcher.

III. Risks:

The interview involves minimum risk to you as a participant in this study. The study will only ask you to think about and describe your experiences involving communication, training, and functional users support groups and how these experiences relate to your adoption of the Student Information System. However, since the interview will be conducted in a group setting, there are limits of confidentiality due to others are present in the group interview. Thus, there is more risk that information is disclosed.

IX. Benefits:

Taking part in this study may not help you personally at this time. We hope to gain a better understand in what change approaches to use for new technology adoption. We also hope to better prepare staff to adopt new technology.

X. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

XI. Confidentiality:

All information collected for this study will be kept confidential to the extent allowed by law. You will not be identified except by a code in the form of a false name. The code will be used to mask any personal information. All information collected which include the code file, the recorded digital tapes, and the transcription will be saved in a firewall and antivirus-protected computer at the student researcher's (Winnie Tsang-Kosma) locked private office at the Big U and will be protected by a computer log in password and a different document security password for each document. All hard copy documents will be kept in a locked filing cabinet. Only authorized research personnel have access to the computer and the locked filing cabinet.

Since you are invited to participate in the functional users support groups interview, you will be notified in advance of all the invited group participants so that you may choose whether or not you wish to participate. If you decide to participate, you should not repeat any information discussed from the group interview.

Whatever personal information gathered during the interviews will be deleted when the study is presented and/or its results published. Any mention of people, places, or things during the interviews will be masked. The recorded data will be written out as text and it

will be sent to you for review. You have the right to delete or change anything that might reveal the confidential information related to you. Only the approved text will be used for data analysis and consequently for the completion of the dissertation, conference presentations or publications.

Your name and other facts that might point to you will not appear when the study is presented or published. The findings will be summarized and reported in group form. You will not be identified personally.

XII. Contact person:

Please feel free to contact Winnie Tsang-Kosma at XXX-XXX-XXXX or by email, BBB@xxxxx.xxx, if you have any questions about this study.

If you have questions or concerns about your rights as a participant in this research study, you may contact the Office of Research Integrity at XXX-XXX-XXXX or AAA@xxxxx.xxx.

XIII. Copy of Consent Form to Subject:

You will be provided with a copy of this consent form for your personal record. If you agree to participate in this research and to be audiotaped, please sign below.

_____

Participant's Printed Name

_____ _____

Participant's Signature **Date**

_____ _____

Student Researcher's signature **Date**

Consent Form Approved by Big U IRB June 12, 2009 - June 11, 2010

APPENDIX F

Interview Protocol

This study uses a modified version of the Seidman (1998) interview technique which centers on a phenomenological approach to in-depth interviewing.

Interview questions related to staff's attitudes toward the change management strategies are adapted from Hall & Hord (1987) Stages of Concern questionnaire based on the Concerns-Based Adoption Model.

The Student Information System (SIS) implemented at the research site referred to as the Big University (Big U). Acronyms are used in protocol questions to establish rapport with participants as the common language of use. During the interview, Big U will not be referred to as Big U but by its actual name.

Change management strategies for the purpose of this research are defined as 1) Communication (focus groups, information sessions, and SIS website), 2) Training program, and 3) Functional users support groups.

Purpose of Interview

I am conducting a research for my dissertation on the SIS adoption at Big U.

I appreciate your time and participation in this interview.

Individual Participant Interview Session

First 1 ½ -Hour Individual Participant Interview Session- Establish the context of the participants' experiences and to construct the details of their experiences

1. Please take a few minutes and tell me about yourself in reference to your SIS usage – that is how much do you use SIS and in what ways do you use it.

2. Please tell me about your experience about the change when SIS was implemented.

3. What mechanisms provided by the University do you feel are in place to help you toward adopting and using SIS?

4. Tell me more about your experience when you went through the change management strategies related to the SIS implementation (i.e., communication, training program, and functional users support group), especially how you felt and acted, and what you said.

5. Do you think you adopted and used the SIS? By adopted, I mean the actual use of SIS to perform your job functions with adapted best practice processes. If so, tell me your experience in adopting and using the SIS. If not, tell me why not.

6. How supported did you feel when it came to adopting and using SIS especially in the unit of communication, training and functional users support group?

7. Between now and our next interview, please reflect on the experience you just shared with me and think more deeply about your own personal experience in adopting and using the SIS. What support do you find most helpful or least helpful and what kind of support you feel would be helpful?

Individual Participant Interview Session

Second 1 ½- Hour Individual Participant Interview session – Reflect on the meaning of participants' experiences

1. Let's return to the experiences you described to me in SIS adoption and going through the change management strategies during our last interview a couple days ago. Please recount briefly the situation you described.

2. What dimensions, incidents, and people intimately connected with the experiences in SIS adoption and going through the change management strategies stand out for you?

3. How did these experiences affect you? What changes do you associate with these experiences?

4. What feelings were generated by your experiences in going through the change management strategies (communication, training, and if applicable, functional users support group)?

5. What thoughts stood out for you?

6. Did you change in anyway that you are aware of as you went through the change management strategies related to the SIS adoption? Can you elaborate?

7. What did you think was the most important thing in supporting you in your adoption and use of SIS?

8. What did you like most about the support you received toward your adoption and use of SIS?

9. What did you like least about the support you received toward your adoption and use of SIS?

10. Can you think of anything else you want to share with me with reference to the experiences in going through the change management strategies and SIS adoption?

Functional Users Support Group Interview Session

2-Hour Functional Users Support Group Interview Session- Establish the context of the participants' experiences, construct the details of their experiences, and reflect on the meaning of participants' experiences

Introduction (Edmunds, 1999)

• Greeting

• Purpose of group interview

- I am conducting a research for my dissertation on the SIS adoption at Big U.

• Ground rules

- Role of moderator
- Interview will be audio-taped - will not attribute answers back to individual participants
- Confidentiality of comments/responses
- Individual opinions (no right or wrong)
- Speak one at a time and as clearly as possible

Interview

1. Please tell me about your experience about the change when the SIS was implemented.

2. Tell me more about your experience when you went through the change management strategies related to the SIS implementation (i.e., communication, training program, and functional users support group), especially how you felt and acted, and what you said.

3. What mechanisms provided by the University do you feel are in place to help you toward adopting and using SIS?

4. Do you think you adopted and used the SIS? By adopted, I mean the actual use of SIS perform your job functions with adapted best practice processes. If so, tell me your experience in adopting and using the SIS. If not, tell me why not.

5. How supported do you feel when it comes to adopting and using SIS especially in the unit of communication, training, and functional users support group?

6. What dimensions, incidents, and people intimately connected with the experiences in SIS adoption and going through the change management strategies stand out for you?

7. How did these experiences affect you? What changes do you associate with these experiences?

8. What feelings were generated by your experiences in going through the change management strategies (communication, training, and if applicable, functional users support group)?

9. What thoughts stood out for you?

10. Did you change in anyway that you are aware of as you went through the change management strategies related to the SIS adoption? Can you elaborate?

11. What did you think was the most important thing in supporting you in your adoption and use of SIS?

12. What did you like most or least about the support you received toward your adoption and use of SIS?

13. What did you think is the most important thing in supporting you toward your adoption and use of SIS?

14. Can you think of anything else you want to share with me with reference to the experiences in going through the change management strategies and SIS adoption?

APPENDIX G

Document Review

Big U SIS Training Evaluation Survey Results from July 1, 2008 to June 30, 2009

Please note that all identifiable information on the survey have been masked.

Training Evaluation - Zoomerang Online Survey Results - Windows Internet Explorer

http://www.zoomerang.com/

File Edit View Favorites Tools Help

Training Evaluation - Zoomerang Online Surve...

Page Tools

2. Training Content

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Strongly Disagree	Disagree	Agree	Strongly Agree
The training was well organized.	1 2%	1 2%	8 13%	53 84%
Training objectives were stated clearly.	1 2%	2 3%	10 16%	50 79%
The content covered in the training enabled me to perform my job.	2 3%	3 5%	13 21%	45 71%
The format of the manuals/handouts was clear.	1 2%	4 6%	15 24%	43 68%
The exercises/lessons were a helpful learning experience.	1 2%	1 2%	17 27%	44 70%
Overall, I learned and benefited from this training.	1 2%	1 2%	16 25%	45 71%

3. Instructor

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Strongly Disagree	Disagree	Agree	Strongly Agree
The instructor presented the material clearly.	1 2%	0 0%	6 10%	56 89%
The instructor was prepared to teach the course.	1 2%	0 0%	5 8%	57 90%
The instructor demonstrated knowledge of subject matter.	1 2%	0 0%	3 5%	59 94%
The instructor answered questions completely.	1 2%	0 0%	5 8%	57 90%
The instructor kept the course at the right pace.	1 2%	0 0%	7 11%	55 87%

Done Internet 100%

Training Evaluation - Zoomerang Online Survey Results - Windows Internet Explorer

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Training Evaluation - Zoomerang Online Surve...

3	The instructor was very patient when people did not understand what to do. She explained things thoroughly and made sure everyone was keeping up.
4	In order to really prepare me for my position, I would prefer a specific training session centered around th r functions related to my job. That would be a better use of my time.
5	very good class
6	a very good instructor!
7	as very knowledgeable and helpful. On-line pre-training was difficult to follow and of minimal help. Classroom training was most helpful.
8	I enjoyed the training. I believe the hands on will be easy to learn more.
9	Very informative
10	There is not enough room on the tables to use the computer and take notes during the lesson. I answered "2" to questions for which I had not opinion but the system required that I respond.
11	I enjoyed the class!
12	Room too cold
13	The instructor exemplified a lot of enthusiam for the subject matter which helped to facilitate learning
14	The room was too cold!
15	Thanks
16	thank you! It would have been nice to get the "cheat sheet" of what the common forms are - as a handout. Thx.
17	ras great!
18	as a excellent Trainer, She provided very helpful information that have allowed me to utilize what I have been taught to perform my job requirements. This training is very much needed and appreciated.
19	Thank you!
20	Instructor Jessica was excellent and very knowledgable. She was very personable and professional.
21	as AWESOME! I will recommend t his to any of my colleagues!
22	Use examples that pertains to participants jobs.
23	An unexpectedly enjoyable experience; thank you!
24	Some of the screens didn't work in training mode - hence, the *only* reason she received a 3 in being prepared to teach the course. Otherwise, this was a really great training session.
25	The facilitator was great.

Display 25 Per Page

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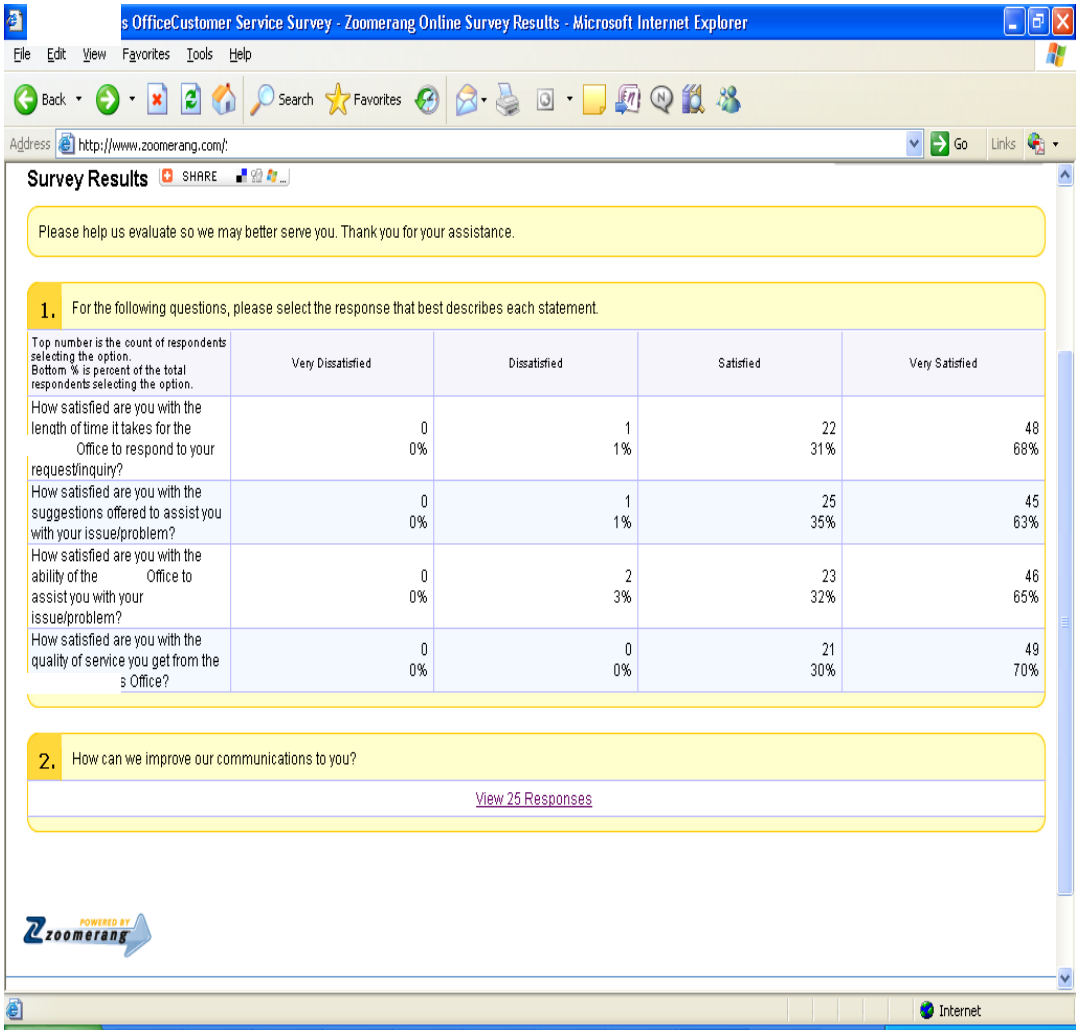
APPENDIX H

Document Review

Big U SIS Office Customer Service Survey Results from July 1, 2008 to June 30, 2009

Please note that all identifiable information on the survey have been masked.



s OfficeCustomer Service Survey - Zoomerang Online Survey Results - Microsoft Internet Explorer

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Survey Results SHARE

Please help us evaluate so we may better serve you. Thank you for your assistance.

1. For the following questions, please select the response that best describes each statement.

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
How satisfied are you with the length of time it takes for the Office to respond to your request/inquiry?	0 0%	1 1%	22 31%	48 68%
How satisfied are you with the suggestions offered to assist you with your issue/problem?	0 0%	1 1%	25 35%	45 63%
How satisfied are you with the ability of the Office to assist you with your issue/problem?	0 0%	2 3%	23 32%	46 65%
How satisfied are you with the quality of service you get from the s Office?	0 0%	0 0%	21 30%	49 70%

2. How can we improve our communications to you?

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	Y'all rock!
6	to continue your efficient service. thank you.
7	You do an excellent job.
8	fice has a extremely fast response time! Thanks! a are the BEST!!!
9	I'm satisfied with the service. I have always received timely and courteous service. Keep up the good work!
10	Already good communications.
11	I am very satisfied wh is available. However, we notice a different in service wher not available.
12	I just do not like that whenever I call I have to leave a message when I need help at the time I placed the call. Then when I get a call back it is a message left on my phone. It can be from hours to the next day when I will get a responds. When I do get in touch the people are very nice.
13	no suggestions
14	Keep the newsletter and email coming. Your office is doing a great job. Thanks.
15	No suggestions. I have received wonderful service every time.
16	N/A
17	Thanks- keep it up!
18	All is fine....
19	Communication is good!
20	I thing the way we communicate now is very good for me.
21	Communications are good. Passwords and logins could be the same as t or everything else.
22	Seems fine to me!
23	Doing a great job so far...keep it up!
24	I think the newsletters are a great way to dispense information the university community.
25	You are doing a great job. Thanks for coordinating testing after the database server upgrade last Sunday.

Display 25 Per Page

Displaying 1-25 of 25 Responses Select Page: First | Previous | Next | Last

Done Internet