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Disruptive Technologies In Systems Of Care: An Exploratory Study Of Social Work With

Older Adults In Long-Term Care Facilities

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A Dissertation

Presented to

The Faculty of the Graduate School of Social Work

University of Denver

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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By

Rebecca L. Paskind

June 2009

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Title: Disruptive Technologies in Systems of Care: An Exploratory Study of Social Sork
with Older Adults in Long-Term Care Facilities
Advisor: Dr. Walter LaMendola
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Abstract

The purpose of this exploratory research was to explore the application of knowledge
about disruptive technologies to the long term care setting using the Eden Alternative™ as an
example. The research questions were: What themes of structuration emerge when a long-
term care facility implements a disruptive social technology? What is the nature of the
disruption between and among workers, long-term care facility culture, and professionals
when a new social technology is introduced? How does social work practice with older adults
change when a social technology such as Eden is introduced in a long-term care setting? Is
Barley's (1984, 1986) model of analysis useful to predict each facility's stage of
implementation at a given time? Can the Barley (1984, 1986) model help explain why the
same social technology impacts different facilities in distinct and different ways? Can the
Barley (1984, 1986) model predict how far along a facility is in implementing the
technology? Can Black, Carlile and Repenning's (2004) model of analysis help predict the
relationship between activities, expertise and accumulations in a facility implementing the
Eden Alternative™?

The literature on culture and structuration was used in this exploration to highlight the
internal struggle of culture to resist or relent to change and how structures would reform in
the new culture. In doing so the researcher sought to replicate the successful study conducted
by Barley (1984) which investigated the introduction of CAT scan technology in the
radiology departments at two different hospitals. Barley (1984) hypothesized that it was not

the CAT scan technology that lead to different outcomes in each department of radiology, but the social interaction with the technology. Later, a study by Black et al (2004) further examined the changes in occupational role that might emerge by simulating changes using a recursive model based on Barley's work. This study applies Black's extension of Barley's model to speculate about the emerging role of the social worker in long term care facilities that are exposed to disruptive technologies, assuming that the long term care industry will be radically altered in the next ten years in the direction of social technologies such as the Eden Alternative and under the weight of a rapidly increasingly population of older Americans. For the current study Eden Alternative™ was implemented in two long-term care facilities at approximately the same time and the researcher conducted observations to see how the two organizational cultures responded to the changes that were made and look at the differences in implementation. In the end this research has discovered that the social technology of the Eden Alternative™ did indeed behave as a soft technology disrupting the existing culture of both settings into which it was introduced during the observation period. The results, explore the manner in which the behaviors in relationship to the technology are similar to and different from previous research findings.

Table of Contents

List of Figures

List of Tables

Introduction

Culture has been defined by Archer (1996) as an integrated set of ideas that encompasses values, beliefs, ethics, language and ways of doing things. When challenged with new values, beliefs, practices or languages participants in cultures will accept, alter, or reject this new idea or set of ideas. This morphogenetic or morphostatic process that maintains the present forms in a culture (morphostasis) or begins to alter them (morphogenesis) is ongoing in all cultures (Archer, 1996). The challenges this process presents can be subtle, such that one does not know what the challenges are today, but they will become clearer in hindsight. An example of one such challenge was the use of the cellular phone; at the point at which it was introduced those who knew about the technology probably did not imagine that "figuring out" the use of these devices, and the gradual integration of the ideas of its use into practices, would initiate a morphogenetic process that would change practices not only U.S. culture but most if not all cultures around the world. Looking back with the benefit of hindsight it is clear that the world is a very different place than it was when the cell phone was first introduced. Morphogenetic processes are by their nature culturally disruptive.

Culture change can be undertaken intentionally (Archer, 1996; Thomas, 2003). This can be done in situations where the current culture is simply not meeting the needs of those in it or when outside forces apply pressure for change. When this is done the hope is generally that morphogenesis will result and the culture will transform in the direction hoped for. However, even in intentional culture changes there will still be forces that resist and

1

push toward morphostasis or stability (Archer, 1996). As a result two cultures undergoing the same change will not accomplish the same changes in the same ways.

A variety of catalysts move cultures toward change; these might include wars, mass immigration or emigration, technological changes and others. Of particular interest to this work are technological causes of culture change. Technologies, as ways of doing things, drive changes in social structures that are largely unanticipated (Castells, 2000). These unanticipated changes may indeed be quite disruptive (Christiansen, 2008). When technologies are introduced into organizations such as those whose purpose is to care for aging persons, they not only alter the social structure through which care is provided, they also alter the provision of care (Bergman-Evans, 2004; Fahey, 2003; Ronch, 2003; Thomas, 2003). Such significant changes in the social structure of care are not usually done in a considered manner, though the subject of this study is an exception (Barley, 1986). By the social structure of care, this study means the relations between and among caregiving staff and the organizational staff in their daily work life: the culture of the work environment. Inherently, this includes professional groups like social work and the ways in which they provide care and support in these settings. Changes in the social structure may involve changing the way social workers do their jobs, how their jobs are organized in the larger context of the organization, and how decisions are made about the nature of their work in the care setting (Bergman-Evans, 2004; Fahey, 2003; Gibson & Barsade, 2003; Martin & Bonder, 2003; Thomas, 2003).

Research Problem Description

Traditionally, long-term care in this country has been provided on the medical model where diseases and symptoms are treated with all that medical technology can offer,

including procedures, medications, rehabilitation and other therapies such as occupational, physical and speech therapies (Henderson, 1995). However, with the increased cost of health care in recent years, long-term care facilities began receiving residents upon discharge from the hospital who were very sick and unable to return home as a result (Harrington, 2002). The Medicare reimbursement system pushed this change further with the development of a hospital reimbursement system known as Diagnosis Related Groups (DRGs) which moved people out of the hospital faster and paid long-term care facilities for their care (Ransom, 2000). Seeing that this was the future of their reimbursement model, long-term care facilities increased the number of beds in individual facilities and constructed new facilities with larger numbers of beds and there were at times as many as 120 residents living in a facility (Ransom, 2000).

This medical model structure requires the staff to function as representatives of their specific disciplines who may serve the resident in their limited role without understanding how all elements of care interact. The work in these isolated and independent silos (Thomas, 2003) is overseen by the facility administrator, director of nursing and other managers, including social workers, who are ultimately responsible for resident care. This requires strict adherence to professional roles and status where all control is in the hands of the administrator and a few people on the management team (Deutschman, 2001). However, in reality in long-term care facilities, staff is dependent on each other to meet the needs of the residents and this dichotomy causes frequent conflict and employee dissatisfaction. In the end this frustration leads to absenteeism and turnover, both of which are negative outcomes for residential care.

If a resident's physical needs are mostly addressed in long-term care facilities, why are so many of them, their family members and the staff who provide the care unhappy with the situation? This study argues there are inherent differences between the current social technology of the medical model culture with its medications and machines, and the culture supported by the social technology that would seek to meet human needs in the social environment of the long-term care facility that is warm, friendly, nurturing and engaging. Medical technology cannot meet those social and emotional needs and Dr. Thomas (2004) and many others argue that a medical setting was never intended to be and should never have been a long-term living setting for people (Deutschman, 2001; Roth, 2005; Thomas, 2004). . Dr. Thomas argues further that long-term care facilities house people who are predominantly bored, lonely and isolated from other people and from other living things, both animal and plant. When an older adult moves into a long-term care facility they usually experience tremendous losses that revolve around these curses of facility life: their friends and family may find it hard to visit, the facility may be in a community distant from the one in which they have lived a lifetime and they must close up their homes, which means losing pets, plants and a familiar setting (Thomas, 2004). The Eden Alternative™ makes meeting the social and emotional needs for residents a priority in a home-like environment where residents' medical needs are also met.

One of the most difficult transitions of aging is the loss of independence and placement in a long-term care facility. Loss of independence is a major practice concern in gerontological social work (Covinsky et al., 2003; Reese, 1999). Social workers who practice with older adults and their families report difficulty mobilizing resources, responses and treatment strategies when the older adult cannot stay home alone without support (Covinsky

4

et al., 2003; Hyduk, 2002; Netting & Williams, 1999; Roe, Whattam, Young & Dimond, 2001). Social work responses and solutions vary, given the differences in person, situation, and environment (Hyduk, 2002), and where the environment will include institutional structures, institutional processes (Kitchener & Harrington, 2004), the professional relationships the social work practitioner develops (Greene, 2005), social policies (Burnette, Morrow-Howell & Chen, 2003; Kane, 2001), and/or the agency base of the social worker (Hyduk, 2002).

This research will focus on the larger cultural and organizational issues involved in managing the changes that occur when new technologies—hard or social—are introduced into the long-term care setting. Because this is an exploratory study, this work will not be able to provide solutions so much as it will provide insight. This research and the conclusions drawn here will not ensure success for those facilities seeking to implement culture change, but will encourage them to think about how the change itself impacts the organization in which they work and provide care and in which the residents receive care. Because past research on the success or challenges of implementing culture change have not considered the organizational impacts, this acknowledgement of these impacts represents an important additional focus for culture change.

This research was conducted at two long-term care facilities operating under the ownership of one not-for-profit corporation in the greater Denver Metropolitan Area. As such, the results presented here will not be generalizable to other long-term care facilities, but the lessons learned here may help to guide the thinking about how to plan and implement culture change.

Purpose of the Study

This study investigates the introduction of a social technology that disrupts the organizational culture and the manner in which care is provided to older and/or vulnerable persons in long-term care facilities. Further, this study investigates the morphogenetic and morphostatic pressure exerted upon the organizational culture as part of the introduction of the social technology known as *The Eden Alternative™* (Thomas, 2003). The literature on aging anticipates that such changes in social technologies are and will become not only more prevalent in long-term care facilities across the country but will also become more important as a phenomenon that influences caregiving (Barba, Tesh, & Courts, 2002; Bergman-Evans, 2004; Coleman et al., 2002; Deutschman, 2005; Fitzgerald, Mullavey-O'Byrne, & Clemson, 2001; Kane, 2001). This study agrees with this assertion and adds a more specific question: how do these changes disrupt and reformulate the interactions and roles of long-term care facility staff? In this case, the study focuses on one profession, social work, and the nature and content of social work provision in the emergent structure.

Research Questions

There is a tension in the study of aging between those who, in the past, have seen it as a developmental stage of life-- with people moving from one orderly transition to the next, and the examination of signal events of aging – such as a move to long-term care – as dynamic, contextually-driven events that are emotionally sore, which in their processual composition are staged, managed, and structured by actors without a full script; a recognized social form only to those who witness the event. These are somewhat hidden events, accompanied more by a sense of the past than of the future, events whose rules, resources,

6

and outcomes cannot be comfortably predicted – even by those successful in insulating themselves with money and plans. The research questions are framed by this context:

1. What themes of structuration emerge when a long-term care facility implements a disruptive social technology?

2. What is the nature of the disruption between and among workers, long-term care facility culture, and professionals when a new social technology is introduced?

3. How does social work practice with older adults change when a social technology such as Eden is introduced in a long-term care setting?

4. Is Barley's (1984, 1986) model of analysis useful to predict each facility's stage of implementation at a given time?

5. Can the Barley (1984, 1986) model help explain why the same social technology impacts different facilities in distinct and different ways?

6. Can the Barley (1984, 1986) model predict how far along a facility is in implementing the technology?

7. Can Black, Carlile and Repenning's (2004) model of analysis help predict the relationship between activities, expertise and accumulations in a facility implementing the Eden Alternative™?

Research Limitations and Assumptions

From the review of the literature and an understanding of the Eden Alternative™ as a culture change tool, this research started with some assumptions and presuppositions about how culture change would disrupt the organizational structure in the facilities being observed. The presuppositions are listed here. First, it is assumed that Edenizing a long-term care facility is a good and desirable thing to do. Further, it is assumed that an Edenizing

facility will be pleasant to be, live and work in based on the changes made to the environment, structure, roles and schedules that took place. It is assumed these are changes that residents, family members and staff desire and support or they would not have remained there as the changes began. However, in some cases, staff may be challenged to change their personal perspectives on how care is provided in long-term care settings and this challenge may be difficult for them. In some cases this could be so difficult that staff would resign. Further, this research assumes that residents saw improved quality of life and that staff saw improved quality of work as a result of these changes and that this is a desirable outcome. Another assumption speculates that if the process of Edenizing went awry, residents and staff would experience diminished quality of life and quality of work as a result of the organizational frustration they are experiencing. Based on this possibility, it is assumed that there would be more conflict among staff and among residents, and possibly between staff and residents in a long-term care facility where the culture change process is not going well than there would be in a facility where it is proceeding smoothly.

Technology is described in many places as a major contributing factor in social change, where "the new information technology revolution induced the emergence of informationalism, as the material foundation of a new society. Under informationalism, the generation of wealth, the exercise of power and the creation of cultural codes came to depend on the technological capacity of societies and individuals" (Castells, 2000, p. 367). That insight is rarely applied in social work practice research, and even more rarely applied to social work with older adults who lose some of their independence. However, older adults' ability to survive the loss of independence is mediated by hard technologies, such as joint replacements, pace makers, organ transplantation, medications and others. As new social

8

technologies that respond to the impending or real loss of independence by older adults are introduced, they become powerful disruptive influences that affect the way professionals work as well as the way people live (Barley, 1986; Taylor, 2000). These hard technologies change the way social workers practice with older adults. A major thesis of this study is that social technologies have a similar effect.

For the purposes of this research, technology is not just a tool or artifact implemented with the intention of making work easier or replacing one effort with another; technology as used here denotes the way things are done in a material culture (Orlikowski, 1992). Technology is performative and includes practices. Practices are technologies of action that usually support a particular social structure. These structures are the settings, in which people work, live, study, interact and behave. As will be discussed in Chapter 2, social structures are composed of expectations, rules, resources, power and accomplishment (Giddens, 1991; Taylor, 2000). From these social structures, we know how to "be" family members, patients in a doctor's office, students, spouses, adults, older adults, and a whole host of life roles. When one of these roles is new to us, we learn the setting to orient ourselves. Once accomplished, our functioning blends smoothly into the setting and we cease to be as conscious of the rules of how to behave and interact. Structure is not only in the learned response by individuals or the interactions of the whole group; it is embedded in the setting both as environment and associated technology. The harder the structure is to change, the more deeply embedded the structure is and deeply embedded structures usually do not change without new learning (Taylor, 2000).

Justification for the Research

In a modern economy, any institution or organization must meet the needs of their consumers in order to survive. The changes that the Eden Alternative™ brings to long-term care are in response to what consumers of long-term care need, want and demand (Thomas, 2003). Given this reality Eden Alternative™ outcomes must be evaluated. In general not enough empirical study has been done looking at Eden Alternative ™ outcomes and results (Rahman & Schnelle, 2008). What previous research there has been on the Eden Alternative™ has tended to focus on health care outcomes for residents (Anderson, 1998; Barba et al., 2002; Coleman et al., 2002; Kehoe & Van Heesch, 2003; Schmidt & Beatty, 2005), with a minor focus on employee outcomes (Deutschman, 2005) and cost-benefit outcomes (Kane, 2001). However, given the health conditions most people experience that are in need of long-term care, it may not be reasonable to expect that these conditions will improve. Since Eden Alternative™ is a social model of care the outcomes evaluated to determine its efficacy should be social ones as well. Without research methodologies that can document what current outcomes there are, and how they occur, there is a real danger that the culture change movement will encounter increasing resistance by those entities that pay for care (Rahman & Schnelle, 2008).

The efficacy of long-term care and its outcomes has also been identified by gerontological social workers as a priority for research. In a 2003 Delphi study by Burnette, Morrow-Howell and Chen, a national sample of gerontological social workers identified a number of research priorities that encompass culture change in long-term care and its results. These include developing options for residential care, the need to focus on self-determination

for elders, managing transitions in living settings, caregiver support, empirical study of interventions and others.

The research reported here is a timely step in the needed direction clearly articulated by both Rahman and Schnelle (2008) and Burnette, Morrow-Howell and Chen (2003). Empirical study of the Eden Alternative™ and its implementation must establish a knowledge base for the future. This base must demonstrate how, where, when and why culture change in long-term care works and shows active benefits for residents, family and staff. Lacking this direction there is no basis for recommending culture change in long-term care at all. However, culture change is being embraced by the long-term care industry and the government entities that oversee it (Rahman & Schnelle, 2008). As a result empirical investigation is lagging sadly behind.

This study is just a step, one that takes a different approach to looking at the impact of culture change; one that has not been tested heretofore. By examining organizational impacts of culture change with a broader focus on culture itself this research seeks to identify ways in which the organization trips up and/or succeeds in adopting a new care technology. The macro focus of this work enables this research to focus where most of the change is happening—at the organizational level, not the resident level—as the shift to Eden Alternative™ is made. From that focus, organizational conclusions are drawn that seek to demonstrate not only how care was changed but also how it improved as a result of implementing the Eden Alternative™. However, this research also goes further to make recommendations for social work in long-term care settings as well. Social workers possess specific training in social systems theory and functioning. This training can and should be augmented enabling social work to emerge as a leader of the culture change movement and

11

culture changed facilities. Medical staff were the leaders in medical model facilities, social work staff should be the leaders in culture changed facilities.

Importance of Addressing the Problem

Older adults and their family members do not view long-term care facilities as a desirable choice. They have earned a reputation as unpleasant institutions, which smell bad and offer impersonal, substandard care, places where older adults are warehoused and forgotten. The unfortunate truth is that indeed the long-term care industry has been beset by problems of environment for residents, family and staff nearly since its inception. As Dr. Thomas (2003), the innovator of the Eden Alternative™ writes, "In order to survive, long-term care facilities must become places where elders feel at home, family members enjoy visiting, staff are respected, listened to and appreciated, the care is good, life is worth living, and legal action is unnecessary" (p. 143).

As an aging population lives longer and loses some independence in the next 50 years we will see increased demand for long-term care. In 2006 there were 37 million people over the age of 65 living in the United States. (U.S. Census Bureau, 2006). By 2050, these numbers will more than double to an estimated 87 million. Most dramatic will be the increase in the number of older adults who become very old. Nearly 49 million individuals are expected to be over the age of 75 by 2050, and of that number at least 33 million will be over 80 years of age (nearly equal to the number of all U.S. older adults today).

In 1999 the Government Accounting Office reported there were 1.6 million older adults living in long-term care facilities, costing the government $39 billion. Of this amount, the government programs Medicaid and Medicare are the primary payers, footing about fifty seven percent of the bill (Kitchener & Harrington, 2004). In addition to paying for these

services, the government works with states to set the policy requirements constituting

adequate care (GAO, 1999). Adequate or safe care has yet to materialize in many instances

and many long-term care facilities are chronically out of compliance with federal regulations.

Twenty five percent of the more than 17,000 long-term care facilities in the U.S. had serious

deficiencies in the 1999 report—those causing actual injury or risk of death-- on their

surveys. The GAO followed these facilities over a 4 year period and found that even though

these deficiencies had been initially corrected, by the end of the observation period the

problems had returned in at least forty percent of the cases. Research on outcomes in long-

term care consistently reflects this problem and while the literature has recommended some

changes to improve quality of care these do not appear to have been heeded.

Eighty percent of older adults 65+ in the U.S. report having one chronic condition and

fifty percent report having at least two. Among these conditions are diabetes, which is seen

in 18% of the population, Alzheimer's disease, which has rates as high as 47% among those

over age 85, and arthritis, which impacts 59% of the population 65+ and is a leading cause of

disability in that group (CDC, 1999). Without careful maintenance, chronic conditions such

as these lead to long-term disability over the course of later life, in which a person could

become progressively more frail, unable to care for themselves, and in need of assistance to

perform activities of daily living that maintain an adequate and appropriate quality of life.

Because of the ramifications of this increase in frailty, loss of independence, having to ask

busy family members or friends for help, admitting that aging is occurring, and fear of being

forcibly moved out of their home, many individuals will not willingly or easily acknowledge

these changes. In the absence of observant and supportive friends, family and spouses, the

older adult can become at increased and dramatic risk for injury in their home. Once injuries

occur or the risk becomes too great, long-term care facility placement is one option to manage the older adult's medical condition(s) safely.

Given these demographic realities, it appears there will be a potentially huge increase in the need for long-term care in the future. The question remains, what kind of long-term care will be provided? This research will hopefully be only one addition to a growing body of empirical knowledge establishing how and why culture change is effective in providing good quality care for the residents and good quality work environment for the staff and managers.

Contributions to Knowledge and Practice

This research is appropriate in the field of social work because structuration is a logical extension of social work's historical theoretical roots. Mary Ellen Kondrat (2002) writing in *Social Work,* talks about using the work of Giddens and other theorists of his genre to "re-vision the person-in-environment lens" (p. 1) for the continued and future development of our profession. Professional social work's primary theoretical foundation is in ecological theories that articulate how systems operate and specifically impact individual, family (and other groups) and community functioning. Further emphasis is placed on the interactions between people and people and systems. The idea is, then, that with this as a foundation, interventions can be developed to address these various impacts and through empowerment individuals, groups and communities can be helped to understand how to impact changes themselves (Kondrat, 2002).

Structuration (Giddens, 1984) takes this ecological thinking further, to emphasize human agency, the recursive nature of the relationships between individuals and their environment, roles, power, and empowerment. In the end "[i]ndividuals belong 'in' larger

social systems, not so much the way a smaller box is nested within a larger one, but rather the way an artist exists within his or her own creation or (to emphasize the coordination involved in any skilled social production) the way a ballet troop is in the dance performance…" (Kondrat, 2002, p. 4) This author goes on to argue that "using [structurationist] approaches could prove useful in answering questions about how racism, 'genderism' and classism become structured…" in our own professional institutions but also society at large (Kondrat, 2002, p. 13).

However, Kondrat (2002) has not gone far enough with her argument. Ageism, given our future demographic reality, is as much a problem as genderism and classism. The potential impact of ageism is far reaching, effecting the institutions we build that address the needs of older adults, but also how we each view our own aging and respond to it. Generally, the response to aging is to treat it like a disease: something to be fought and held at bay. This reflects little understanding of aging and its concomitant physical, emotional and societal results as a normal developmental process, one through which every person passes until they die.

Long-term care facilities and those who own and administer them will potentially benefit from this investigation. Making the shift in culture from the medical to the social model requires a huge commitment of time, energy, resources and money. This investigation will help all involved to better understand whether implementing the Eden Alternative™ in a long-term care facility works in the ways intended, what structures and practices must be changed in order to successfully implement this technology, what the nature of those structures is and what the role of expertise is. This investigation may also help us to understand whether the disruption and re-stabilization in roles, authority and interaction

caused by attempting to implement the Eden Alternative™ is the reason some facilities do not successfully complete this implementation. Further, this investigation will highlight social work roles as they exist in the facilities under observation and make recommendations for better using social workers as important experts in social systems as culture change is implemented.

Structuration using social technology like the Eden Alternative™ also presents a unique leadership opportunity for social work professionals. Training, experience and background all prepare social workers with a thorough and idiosyncratic understanding of human systems and their function. Impacting change and introducing new social technology requires that social experts be sought to monitor progress and record outcomes, just as information technology experts are sought to monitor progress and record outcomes when a new integrated computer network is installed in a new setting. Further, it would seem that those systems attempting to introduce social technologies without this expertise run the risk of having the process of change and re-structuring go awry.

What researchers like Barley (1986) have begun to investigate is the pivotal role that technology plays in how structures are defined, developed, responded to and stabilized: how it is a part of that social creation that Kondrat (2002) is referring to above, and how through its involvement, it changes the picture. This work represents an important shift in understanding that technology is not just a technological artifact but a social and processual one as well. As social workers, technology in all forms is a part of the human experience and environment for the people we serve; for the purposes of this study in particular, it is how their lives are attended to by institutions such as long-term care facilities.

Significance of the Research

       The Eden Alternative™ (and other culture change movements similar to it) is changing long-term care in the U.S. and in many other countries worldwide. These changes are being reflected in how long-term care facilities are evaluated on every level, by the consumer and their family members (Kane, Lum, Cutler, Degenholtz, & Tzy-Chyi, 2007; Rosher & Robinson, 2005), by the staff who work in and manage the facilities and the care they provide (Anderson, 1998; Barba et al., 2002; Coleman et al., 2002), by those who own the facilities (http://www.pinonmgt.com/, 2008) and also by those who finance and license the care provided (Rahman & Schnelle, 2008). The outcomes studies on culture change thus far have not demonstrated the positive results that all involved have hoped for (Barba et al., 2002; Bergman-Evans, 2004; Deutschman, 2005; Freedman, 2005; Kane, 2001, 2003; Ronch, 2003; Rosher & Robinson, 2005; Roth, 2005). This study considers if part of this failure is related to the focus that the previous research has taken. Rather than look at resident medical (or health) outcomes or staff variables related to job satisfaction or turnover rates, this study looks at the organization as a whole and both the disruptions caused by the Eden Alternative™ as it is introduced and implemented and the ways in which the organization rearranges itself around the Eden Alternative™ as a new Alternative™ to providing care. From this investigation there might develop another type of quality indicator for long-term care facilities hoping to implement the Eden Alternative™.

Definition of Key Terms

   Barley used a number of terms which are important to understanding his methodology (1984, 1986). Definitions of these terms are listed here for ease of reference as the methodology is explained. These terms have also been defined elsewhere in this work.

- Structuration: Natural process of temporally organizing social activity in systems in predictable, repetitive, reflexive and recursive ways. Structures evolve as part of systems so those involved have an understanding of the ways to behave within them. This is an ongoing process, minute by minute, and responds to disruptions, like new technologies, in unique ways (Barley, 1986; Giddens, 1991; Taylor, 2000)

- Phases of structuring: defined by talking with the staff in all departments in the organization about when key transitions occurred in the structuration of the organization and gaining consensus about when phases shifted (Barley, 1986)

- Scripts: a behavioral grammar that "outlines recurrent patterns of interaction that define in observable and behavioral terms the essence of actors' role (Schank & Abelson, 1977)

- Plots: scripts which occur regularly and by this repetition serve to reinforce roles, social structure and expectations (Barley, 1986)

- Centralization: level at which organizational decisions are located with a few leaders at the top or near the top of the hierarchy (Barley, 1986)

- Measure of Centralization: a measure used to code decision-making based on an analysis of the scripts and plots Barley (1984, 1986) identified from his observational notes

From this introduction, the next chapter will provide an introduction to and discussion of the relevant literature. This will cover the theoretical literature contributing to this work, long-term care literature in general, technology implementation in long-term care and Eden Alternative™ implementation as well. The goal is to begin to shift the readers' thinking toward understanding what

dimensions of culture are shifted when long-term care culture is changed and how this impacts the facility in ways different that have commonly been thought. Chapter 3 will then move on to a discussion of the methodology used in this research and how it links to theory. Chapter 4 will present the results of this study linking the analysis to the research questions. Finally chapter 5 will discuss these results and the ways in which they contribute to the literature on disruptive technologies and implementing Eden Alternative™ in long-term care.

Literature Review

Review of the Theoretical Literature

Cultural processes of Morphogenesis and Morphostasis

Culture is an integrated set of ideas which over time become ingrained into ways of looking at the world, beliefs, values, language and ways of doing things in an organization, family, community or society (Archer, 1996). These ideas share a logically consistent relationship to each other where they weave a tightly knit fabric that is also dynamically challenged to change and integrate new information on a moment-to-moment basis. The challenges presented by the cultural environment catalyze morphogenesis or morphostasis, the move toward change or staying the same. Power, values and beliefs are applied when cultures change, these guide the direction of change and the way in which culture members will come to view it as it transitions. These experiences offer new ideas out of and in potential conflict with old ones (Archer, 1996; Mutch, 2004). The change process is the site of cultural evolution and/or hardening. Cultures which resist morphogenesis over time become increasingly formalized and it becomes progressively harder to change them. Fully engrained cultures with hardened beliefs, values and expectations can be very painful to change for all people involved, if they are able to change at all.

Structures and processes are the outgrowth of this morphogenic/morphostatic cycle. Morphogenesis changes elements of the existing structures to integrate new cultural elements. Morphostasis formalizes existing behavior, values, beliefs, and expectations (Archer, 1996). In both cases, the results become, even if briefly, the"way things are done

around here." Family membership, work roles, social roles and other group roles in worship

centers, sports teams or other groups contain cultural roles embedded in social structures.

These structures and roles are not usually contemplated on a daily basis, but engaged in

through what Giddens (1986) would term practical knowledge; the expectations that govern

behavior about which people are generally unaware. Most of what people do on a daily basis

is governed by these cultural roles which determine expectations outside of the bright light of

conscious thinking. Individuals do have the freedom, or agency (Giddens, 1986) to pick the

roles of interest to them, such as professional roles, but once assumed these roles are usually

filled according to the expectations of the environment in which they are performed in order

for the person to be successful.

The morphogenetic/morphostatic transformation is not necessarily a smooth one.

These changes are often filled with conflict (Archer, 1996), specifically over whether and

how the culture will transition and what the end result should be. This conflict is a natural

part of the changes the culture is experiencing; however it can be frustrating and painful for

those involved. The normal opposing pressures to change and stay the same are unique to

each environment because of these conflicts. What is unacceptable in one organization will

be acceptable in another. The end result will be that the way each culture completes

morphogenetic cycles will be unique. No two cultures will look exactly the same.

Culture change can be sweeping and intentional, where morphogenesis takes on the

fundamental beliefs, values and ideas of a culture as a whole in one morphogenetic cycle.

Usually this must be managed carefully with goals and expectations in mind from the start

(Thomas, 2003). Such is the culture change to be addressed in this work where long-term

care facilities will purposely undertake to change their organizational culture from a medical model of care to a social model of care using the guidance of the Eden Alternative™.

The Eden Alternative™ is presented to organizations as a sweeping culture change. What this means is that Eden Alternative™ presents an integrated set of ideas (a culture) for the long-term care facility to adopt, or work at adopting, that is in opposition to the integrated set of ideas in the current organizational culture (known as the "medical model"). For example, in the Eden Alternative™ bathing is scheduled according to the resident's needs and often the facility will determine if there are any special scents or soaps the resident would like to use while bathing. In the medical model, bathing is scheduled according to the nursing team's needs (Thomas, 2003). Another example is "morning." Medical model facilities determine that morning starts sometime about 6:30 or 7:00 am. However, for many people morning doesn't really start until 1100am and for some who worked nights their entire adult life, morning might not be until 5pm. In the Eden Alternative™ residents are often encouraged to wake and go to bed on their schedule and medications planned around that. See Table 1 for more detailed comparisons of the differences between the medical model facility and an Eden Alternative™ facility.

Eden Alternative Principles	Medical Model Principles
1. The three plagues of loneliness, helplessness and boredom account for the bulk of suffering among our elders	**1. The patient is in the facility because they are sick and any further risk to their health must be minimized.**
2. An elder-centered community commits to creating a human habitat where life revolves around close and continuing contact with plants, animals, and children. It is these relationships that provide the young and old alike with a pathway to a life worth living	**2. The facility must be kept clean and free of any potential infection or contamination risk.**
3. Loving companionship is the antidote to loneliness. Elders deserve easy access to human and animal companionship.	**3. Relationships between residents are nice, but they are not the priority in the facility.**
4. An elder-centered community creates opportunity to give as well as receive care. This is the antidote to helplessness.	**4. Patients receive care; it is too risky to their health for them to participate in giving care.**
5. An elder-centered community imbues daily life with variety and spontaneity by creating an environment in which unexpected and unpredictable interactions and happenings can take place. This is the antidote to boredom.	**5. Daily activity is conducted by a schedule, posted visibly every week. Most activities will occur at the same time every day.**
6. Meaningless activity corrodes the human spirit. The opportunity to do meaningful things is essential to human health.	**6. Activities, meals and other facility management tasks happen on a predictable unchanging schedule.**
7. Medical treatment should be the servant of genuine human caring, never its master.	**7. Medical care is the purpose of the facility.**
8. An elder-centered community honors its elders by de-emphasizing top-down bureaucratic authority, seeking instead to place the maximum possible decision-making authority in the hands of the elders or in the hands of those closest to them.	**8. Facility is run on a model that mirrors hospitals. A management teams oversees all the work done in isolated teams and is responsible for all resident care decisions.**
9. Creating an elder-centered community is a never-ending process. Human growth must never be separated from human life.	**9. The medical model does not evolve**
10. Wise leadership is the lifeblood of any struggle against the three plagues. For it, there can be no substitute.	

Table 1: Eden Alternative Principles (Thomas 2003, p189) compared to medical model principles taken from (Henderson, 2003; Thomas, 2003).

The nature of the change in the status of all members of the organization depends on their relationship to the new technology and how authority is distributed (Black et al., 2004). Equal knowledge of the technology, soft or hard, among all those in the environment leads to more balanced collaboration. Conversely, imbalanced expertise either in the hands of those with most or least authority will result in less collaboration in the implementation of the technology. The result of this sweeping change is the development of new processes and structures, through which care is provided in synchronization with the values and beliefs of the new organization.

Role of Technology

Researchers have long seen that technology has an impact on behavior and culture when it is introduced and used. Technology can be understood by anthropologists, as "…meaning in the making" (Dobres, 2000, p. 47). The standing view of technology is as the production of material culture for use. However, it has been argued that such a view is narrow, confining technology, as it were, to the physical and artifactual world (Schiffer, 2001). Technology is applied to the production of a social culture for use as well (Giddens, 1991). When performed by persons in an organization through mutual labor, through practices that carry values and engender meaning, technology - seen as an intentional way of behaving - contributes to the production of social structures through performance. Thus, technology as a concept has been "extended to 'social technologies,' thereby including the generic tasks, techniques and knowledge utilized when humans engage in productive activities" (Orlikowski, 1992, p. 399). Eden Alternative™ has developed an approach to assist organizations with culture change, a process technology to assist in the active

production of social behavior that will incorporate new Eden Alternative™ (see Table 1) cultural ideas in embodied performance.

Early research viewed technology as a product (Black et al., 2004; Orlikowski, 1992, 2000) or as it influences and changes the environment in which people work and live. Other research investigated technology as an independent objective and external force impacting organizational structure when it is implemented (Orlikowski, 1992, 2000). This school of study however, failed to integrate human behavior in its thinking and did not recognize that technologies may be implemented in different ways by different people, groups or organizations. Researchers beginning to take human behavior into account see technology more as an object that is recreated anew in every situation into which it is introduced and takes on the characteristics the environment demands (Barley, 1986; Black et al, 2004; Orlikowski, 1992, 2000). Viewed through this perspective researchers have developed an understanding that a rigid view of technological use extrapolated to every situation not only does not make sense, but is inappropriate. Different settings need and use the aspects of the tools given to them in the way that fits for them.

The question remains, however, how are these implementation decisions made? Who determines the implementation and why? How does social action relate to technology implementation in practice? Using Barley's (1984) data, Black, Carlile and Repenning (2004) focus on the recursive dynamics between the activity or work and the power afforded to those with the most knowledge of the new technology being introduced. In the case of Barley's (1984) observations, the radiologists held the traditional power in the usually very hierarchical setting. In the case of Eden Alternative™, the manner in which the health professions have organized organizations of care distributes and maintains power (Thomas,

2003). In Barley's work, an artifact was introduced into a radiology setting. In Eden Alternative™, a new culture is introduced along with a process to enact it (Thomas, 2003). When the new technology was introduced in Barley's (1984) work, the technicians with the knowledge of how to operate the machinery and in some cases interpret the images came to hold more power. A big part of the disruption caused by introducing the technology was the disruption in the usual chain of authority and expertise in the setting. Even though a physical artifact is not being introduced in Eden Alternative™, the process of implementing Eden Alternative™ redistributes power and authority, changing the resources and rules of the organization (Thomas, 2003). In both cases, as the setting adjusts to the new technology, new patterns of power distribution emerge. Ideally, knowledge between the work and implementation of the technology will be balanced, leading to collaboration between all in the work environment and enabling a good sense of teamwork. Shifting the balance in favor of the professional staff or conversely the technical staff leads to power imbalances that impact the way the work gets done (Barley, 1984; Black et al. 2004). The recursive relationship between activities and the developing knowledge about them determines how, when and sometimes why technologies are used in practice.

Disruptive Nature of Technology

Disruptive technologies are those technologies which support an entire re-thinking of how things are done or the emergence of new ways of doing things. This disruption generally occurs at a cultural level. Many of the research examples of disruptive technology (Christensen, 2000; Christensen et al 2008) primarily use hard technology. A good example, mentioned previously, of a modern disruptive hard technology is the cell phone. This innovation has contributed to a complete rethinking of how, when, where and why people

talk on the phone but also stay in touch with their loved ones, employers, employees and friends. They can be and are taken anywhere: in the car, into restaurants, the theatre, stores and even places it was unthinkable to take a phone before, like the bathroom. Even though cordless phones predated the cell phone, their use was limited to a range around the base phone stationed in the house or office and therefore could not be taken everywhere. Modern cell phones hold all of a person's contacts, calendar and alarm requirements, in addition they serve as small computers with access to the internet and applications that will work with a larger computer seamlessly. As a result, human agents are creating new uses of cell phones in various settings. The awareness of the ubiquitous nature of cell phones is evident nearly everywhere: There are multiple urgings to turn off cell phones at the beginning of movies; Signs are often posted in restaurants and medical offices that cell phones cannot be used there.

As indicated, most of the literature about the disruptive nature of technology in social settings has focused on hard technologies such as computers, phone systems, and automation (Barley, 1984; Christensen et al, 2008; Suchman, 1987; Taylor et al, 2000). However the argument has been expanded to what have been called "soft" technologies (Jin, 2001; Orlikowski, 1992) that may include behaviors, job organization and knowledge. These processual technologies are described as equally disruptive to social systems when introduced (Christensen et al, 2008; Jin, 2001; Orlikowski, 1992, 2000) and like their hard technology cousins they will also impact each setting in unique ways. Most of this focus on the impacts of "soft" technology appears in the business and organizational literature (Barley, 1984, Christensen 2003; Christensen et al, 2008).

The research reported here places this issue at the heart of the social sciences and social work research literature. While this shift has some support in the literature (Christensen et al, 2008; Daneels, 2004; Gilbert & Bower, 2002; Govindarajan & Kopalle, 2006; Henderson, 2006; Markides, 2006; Tellis, 2006) the impacts of soft technologies on social settings has not received much empirical study. This is an important and timely transition in the study of systems and their ecology to which social work research in particular has been dedicated. This research takes the next step by looking at how systemic changes will impact similar but distinct systems in different ways based on the unique social structures of each. There has been an awareness that each family or work group is different, but there has been no foundation built that explains why each family or work group reacts to each situation differently.

Morphogenetic processes evoked by introducing technology

In general, technological change related to artifacts has been viewed as both desired and positive, where new inventions save time, money, human energy and increase motivation. They are often also directed by a vision of human progress, dignity, and justice. But in doing so, they are still disruptive influences requiring changes in how and when things get done in the setting into which they are introduced. Changes on this level also require changes in how people organize around the technology. This disruptive influence is important to consider for two reasons. First, it will change the social environment of any setting into which it is introduced. Second, these changes and disruptions will be unique to each setting (Barley, 1984). The individual nature of this disruption is the focus of Barley's (1984) study of the disruptions and restructuration of two hospital departments of radiology introducing CAT scanning technology. Barley (1984) found that even though both

28

departments were implementing the same technology into similarly hierarchical settings, the technology itself caused unique changes in the social environments of each department. Actual implementation of the use of the technology in the social environments of each department looked very different.

Morphogenesis caused by introducing technology in cultures is not widely documented. Of particular interest for this research is work environments, specifically long-term care work environments. Technology itself is a disruptive force in organizational cultures (Barley, 1984) and causes morphogenetic push by its introduction (Orlikowski, 2000). New technologies in organizations change the way work and interaction are accomplished. For example, when the cell phone was introduced in the work environment, work roles shifted significantly because organizations no longer required one person to answer the phone and take messages. The receptionist could be taken out of the loop entirely and workers were made available nearly around the clock depending on personal and larger group expectations around this. The impact of the cell phone has significantly changed the nature of how most people spend their work day. Without the technology, the cultural adaptation would not have been necessary and without the cultural adaptation, the technology may not have been required.

Structuration Theory

This model of culture change further draws upon early sociological theorists in structuration, Pierre Bordieu (1984) and Anthony Giddens (1991). Structure results from the morphogenetic cycle where there is pressure to establish some certainty to how things will be after a period of change. Giddens (1991) argues for a recursively and reflexively organized world in which social activity is temporally organized and ordered and repeats in a

predictable pattern. In this theory, activities are at the core and intentional or unintentional actions involve power (Taylor, 2000). Structure is a duality in that it is both the outcome of this repetition and it is the medium in which the repetition occurs (Giddens, 1984). In this theory, structure is what joins systems together and creates sameness about them; this is distinct from the systems which comprise them.

Giddens (1991) and Archer (1996) advocate for the individual's ability to impact situations in which they are involved, also called human agency (Kondrat, 2002; Schilling, 1997). And while Archer and Giddens disagree on some fundamental issues of culture, agreement can be found in their conception of agency (Schilling, 1997). Human agency is realized in exercising power and results from mobilizing resources all of which arises from the rules of how society functions. It is the capability people inherently hold that allows them to change or impact a situation toward a different outcome or result (Schilling, 1997).

Giddens (1984) views rules and resources as inextricably linked in any setting. Rules are grounded in practical knowledge about which people are consciously unaware day-to-day more so than in discursive knowledge about which people are more aware day-to-day and as such are acted out in unknown ways. Rules and resources work together in most situations; however, they are distinct entities. Rules pull together behaviors and expectations in social systems and resources are the result of this structuring around behaviors and expectations (Kondrat, 2002). Rules may be explicit (policy) or informal, moral or procedural (mores, expectations).

Resources will be either allocative or authoritative. Allocative resources involve things like equipment, money and time. Authoritative resources are people or groups. Power is not itself a resource but is exercised through the use of resources as one element of the

reproduction of social behavior (Giddens, 1984; Taylor, 2000). Individual access to resources is determined by a number of factors which might include social status, power, training, and opportunity (Kondrat, 2002; Taylor, 2000).

Giddens' (1991) thinking has been developed and tested in the time since his original work and these extensions are useful in this conceptualization of culture and culture change. James Taylor and his colleagues (2000) codified structurationist thinking on many levels. From the communications standpoint they added an important element to Giddens' (1991) thinking which has relevance for this work. These theorists postulate that communication is central in structuring activities and environments. By definition this emphasizes the fact that structuring is a group behavior requiring group interaction to accomplish. Further, once structures are formalized in a group setting they become much more difficult to change. Individual behaviors are not so resistant to change (Taylor et al., 2000). "[C]ommunication is the modality of domination and legitimation: how authority (power) is exercised and discipline enforced [it]…explains the ongoing restructuring of society" (Taylor et al., 2000, p. 48). In short, the spoken and written word is how structures are structurated and how morphogenesis is communicated and motivated.

Other theorists such as Suchman (1987), Huchins (1995) and Engstrom (1987) help us understand structure as an internal process within and between actors in a system which includes technology as an actor in various manifestations and which is situated strategically in all settings in which people live and function. Most of the time, these structures function seamlessly as a result of group process and distributed cognition (Hutchins, 1995); however, they are also inherently contradictory: people live at the intersection of this contradiction (and are often aware they do) and that contradiction is the motivation for change. Changes in

31

technology also change how work is organized, which is inherently different from the existing classification in a structure. The resulting upset to the structure will require a reorganization and accommodation of these tasks before productivity and a sense of satisfaction will result (Taylor et al., 2000).

Suchman (1987) focuses on the resources for structuring which exist as a relationship between the people in a setting, the setting itself and the activity involved. These structuring resources will be unique to each environment and will guide how these resources are mobilized to solve problems. Problems are not solved by individuals in these settings, but by everyone in the setting taking account of the requirements of the setting and the activity at hand (Hutchins, 1995). Hutchins' work takes Suchman's one step further and examines how parallel processing of the same information by several people at the same time is a more robust system of cognition, better able to detect error and more efficient in coordinating interlocking tasks and resources (Hutchins, 1995; Suchman, 1987; Taylor et al., 2000). How the environment is pulled together into this structure and how the actors respond to problems varies as a function of the expectations in the setting.

Taken collectively, these theorists develop a picture of cultures and systems that diverges somewhat from traditional social work theoretical orientations. Social work's theoretical roots mirror the development of social theory as a whole (Peile & McCouat, 1997), where at different historical times it has leaned toward positivism, interpretivism and postmodernism. Recently, social work has developed an affinity for theoretical relativism, believing that there is no one truth or theory to explain all of human behavior. (Peile & McCouat, 1987). Among the theories comprising the relativist view are critical theory, ecological theory and feminist theory. Critical theory holds as its focal idea oppression and

how people came to be oppressed. Feminist theory takes this one step further with a

particular interest in oppression in gender relationships (Peile & McCouat, 1997). Ecological

theory seeks to understand human behavior in context and how that context influences it.

Thus the ecological theories tend to look at people in environment and how that environment

impacts them (Kondrat, 2002; Peile & McCouat,1997). This is distinct from the view taken

in this work that social structure is a recursive process where structure constitutes and is

constituted by society. Actors are the key informants of this process where their behavior

enables structure but by using agency they change it as well. The emphasis in this view is on

this human agent (Kondrat, 2002).

Culture, the gathering together of the beliefs, values and ethics of a system is ever

changing, confronted with the option of changing or staying the same. Actors in this process

have some ability to impact the direction and nature of this decision, but the morphogenic

process itself is inevitable at some point. Structure results from morphogenesis and is

created *in vivo* by the actors involved and the rules, resources, power and practices that are

unique to each setting. This structure is realized on a daily basis; however, it is somewhat

resistant to change. Communication, both verbal and nonverbal in the setting serves to

inculcate and reinforce the structure by transmitting expectations and manifesting power.

While popular manifestations of technology focus on artifacts like the cell phone, less

obvious is the case that those part of the success of technologies is due to the ways people

change the way they perform tasks or the way they behave in order to accommodate them.

The social behavior that accompanies those artifacts is often in the background, only to

become visible when it disrupts behavior. In the case of the cell phone, numerous examples

of such disruptions are now more obvious – we now debate when to take calls and when not

to take calls, driving while talking on the cell phone, and so on - In fact, some technologies that change the way we do things, such as the Eden Alternative™ that is the subject of this paper, are not artifacts in the same way as a cell phone, and in addition they "foreground" social behavior. These social technologies, such as airport security checks, disrupt behavior in the foreground as they alter the social structure of an institution. For example, the Eden Alternative™ intends to change the way institutionalized caregiving tasks take place and the manner in which people behave in those institutions. It does that by introducing a set of ideas, a culture, embedded in a process for implementing an initial structure of new rules and resources for caregiving. For example, an idea in the Eden Alternative™ culture is that "…companionship, the opportunity to give meaningful care to other living things, and the variety and spontaneity that mark an enlivened environment can succeed where pills and therapies often fail" (Eden Alternative, retrieved 2/17/2002, www.edenalt.org).

A new structure based on this culture, or set of ideas, will allow people in residence to bring their own furniture, plants and their own companion animals to their new room. As a consequence, no room is the same. Individualized support of this type will take more time and involve staff in different roles. Time is a resource. As this example points out, it may be the case that social technologies are more openly disruptive by their foregrounding of requisite cultural changes than our example of a cell phone. Earlier studies of technology tended to deal with artifactual technologies where the cultural disruptions are unanticipated or unintentional. These studies are helpful in terms of studying how such technologies impact the culture and structure into which they are introduced (Barley, 1984; Christensen, 2003; Christensen, Horn & Johnson, 2008; Hutchins, 1995; Suchman, 1987; Taylor et al., 2000).

Here those findings are extended to social technologies through use of the example of the Eden Alternative™.

The Eden Alternative™ fits this definition of a disruptive innovation because it started as a grass roots effort and gained momentum among certain types of long-term care facilities. Facilities interested in implementing the Eden Alternative™ tend to be nonprofit facilities without a lot of resources in markets where there are often not as many choices for long-term care. The earliest Eden Alternative™ facilities were often associated with faith communities and were not members of large chains (Boyd, 2003; Brennan, Brancaccio & Brecanier, 2003; Tobin, 2003). Eden Alternative™ is disruptive also because it represents a shift from an emphasis on the medical model (as mentioned previously in this work) to a social one where making the facility the resident's home is more important (Barba, Tesh, & Courts, 2002; Ronch, 2003; Thomas, 2003).

The Eden Alternative™

The contemporary disruptive innovation at the heart of this research is the Eden Alternative™ in long-term care facilities. In 1992, William Thomas developed the Eden Alternative™ because he was disappointed by typical long-term care facilities and their resident care outcomes. The movement began with a grant-funded project in one 80-bed home in New York State. After replication in another facility in 1994, Thomas (2003) wrote the Eden Associate Training and Regional Coordinator training in 1998. At its core, this movement was "an effort to improve quality of life for residents in a single nursing home [and] has emerged as a worldwide movement to reform the ***structures and practices*** of long-term care as a whole" (emphasis not in the original) (Thomas, 2003, p. 143). This Alternative ™ is morphogenetic to the facility culture (Archer, 1996). It sought to change long-term care

culture at every level and make long-term care facilities more home-like for their residents, removing some of the institutional and hospital-like restrictions that make the facilities feel cold and harsh. It included plans to make communities more intimate where vocabulary recognizes that the environment was "home" to the older adult residents (often referred to as elders). These residents were encouraged to decorate their rooms with personal belongings, bring their pets with them (in many cases) or enjoy the pets adopted by the facility. They were encouraged to decide for themselves when they wanted to eat, sleep, bathe or participate in activities. These communities were redesigned using furnishings, lighting, and plants to make them more warm and inviting. Staff teams were reorganized to move decision-making about the resident as close to the resident as possible. Thus nursing assistants and other direct care staff were empowered to participate more fully and actively in care planning (Thomas, 2003).

Outcome studies in the decade since the inception of the Eden Alternative™, looking at the impact of culture changes at many levels including facility management, staff work setting, resident living setting and others have been promising and have spawned a culture change movement in the long-term care industry nationwide and to some degree internationally (Coleman et al, 2000; Fagan, 2003, Gibson & Barsade, 2003; Kane et al, 2007; Rahman & Schnelle, 2008; Redfoot, 2003; Tobin, 2003). This represents a cultural transition and philosophical change from the medical model to a social model of care. This change "seeks to care for residents in a holistic manner…expand the choices which residents have in their daily lives…encourage the elders' learning and developing new relationships with people from a variety of age groups…[and] promote quality of life and quality of care (Roth, 2005, p. 234)."

This research seeks to understand how Eden Alternative™ as a disruptive technology has different results in different environments. Using Barley's (1986) methods, this research seeks the answer not in problems with the technology of Eden Alternative™ itself but in the dynamic interplay of elements of the environment in which it is introduced. Elements considered include leadership, decision making, resources, rules, practices and power and others (Archer, 1996; Barley, 1986; Giddens, 1991; Suchman, 1987; Taylor et al., 2000). The results obtained here may enable long-term care facilities undertaking culture change to assess and anticipate how they may struggle with implementation and how they may soar. Planning for success and exercising patience with short-term "failure" may help ensure success for those facilities who do not give up on the journey in frustration.

Review of the Relevant Long-term Care Literature

Research into long-term care has focused on the cultural elements thought to be important under the medical model. Thus the emphasis has been on health-related outcomes and the staffing and facility characteristics to support those. In the medical model it is important to understand that a resident is doing "better" when their weight is good, when their skin intact with no ulceration, when they do not have an infection, when they are able to get out of bed as appropriate for meals and various activities. All of these things ostensibly lead to quality of care. Most of this research does not really address the issue of resident quality of life, assuming possibly that if they are well or as well as can be expected and participating in facility life, that they have a good quality of life. This section will review the long-term care literature along these cultural lines/expectations.

Research in long-term care has had difficulty discerning why institutional care for older adults generally yields poor outcomes. While the regulations help all involved develop

37

awareness of what should be done, how and when, this has not necessarily improved outcomes. The problem may be due in part to expectations that are out of line with the realities of aging. For example, many of the studies cited in this review examine health related outcomes in long-term care as an indicator of quality of care (Coleman et al., 2002; Forbes-Thompson, 2005; Kane, 2001; Kane, Lum, Cutler, Degenholtz, & Tzy-Chyi, 2007; Rosher & Robinson, 2005). However, people who are battling chronic, disabling and terminal illnesses that require long-term care should not necessarily be expected to recover their health or functional status and they will likely continue to decline. Measuring quality of life in a long-term care facility presents the same problems because a person who is ill and requires residential care probably should not be expected to be happy about it, at least not all the time. Residents may report that a facility is becoming pleasant to live in, but still feel very strongly that they would rather return to their home. The task is to figure out what health declines are caused by the facilities providing care and what is to be expected normally and improving quality of life within the confines of this dichotomy.

Staffing problems in long-term care

Working in long-term care can be challenging, staff deal with hyper-regulation, terminally ill and quite possibly cranky older adults who do not want to be in the situation they are in. Burnout and staff turnover are very high among caregivers and presents a very real problem to the ongoing management of facilities (Harrington, 2005). Employees frustrated with the process of care leave their jobs, creating a staffing vacuum in which turnover, hiring and resignations are a vicious cycle.

Since the 1970's long-term care research has consistently found that care outcomes improve with increased RN hours and total nursing staff hours per day. The Centers for

Medicare and Medicaid Services (CMS), the government's funding arm that pays for long-term care recommends specific staffing patterns in every long-term care facility which include approximately 4 hours per day of CNA and licensed staff and nearly 1 hour per day of RN staff (Harrington, 2005). Most facilities do not achieve this level of staffing (Harrington, 2005).

Research on nursing home outcomes has focused on a number of variables related generally to resident care and staffing which comprises quality of care variables. Researchers (Anderson, Hsieh & Su, 1998; Berkman et al., 2005, Bostick, Rantz, Flesner, & Riggs, 2006; Kane, 2001; Kitchener & Harrington, 2005) in this area find that staffing is one of the key indicators of facility success in long-term care. Yet many facilities are chronically understaffed. Research consistently indicates that when more money and attention dedicated to increased RN staffing and increased RN hours as a percentage of all licensed staff on hand per shift in long-term care facilities yields better outcomes for residents (Bostick, et al. 2006; Kane, 2001; Kitchener & Harrington, 2004). Because this expense is recommended and not mandated most facilities continue to staff at substandard levels with less well-prepared clinical staff as a cost saving measure. The outcomes for residents in this scenario are universally poor.

Another staffing issue of concern in long-term care is staff turnover. Good data on staff turnover has been difficult to come by. There is no good reliable, valid and consistently used measure. However, comparing those studies that have been done indicates a pattern for higher staff turnover in larger for-profit organizations. These facilities tend to offer fewer employee benefits and pay (Bostick et al., 2006). Some of the research has found a relationship between turnover and resident outcomes.

Industry wide turnover averages run approximately 75% (Harrington, 2005), but can run well over 100% in some facilities. Vacancies at this rate can make positions difficult to fill, impacts morale, leads to chronic staffing shortages and presents a number of problems in the care setting. First, residents are cared for by staff they do not know or trust and who do not know them well. This caregiving relationship is key to the resident's long-term health and stability on a day to day basis as seemingly small things like skin breakdown can lead to much more significant health problems and must be monitored. Second, caregiving staff is likely to be far less experienced in their jobs. They may not have the wisdom to understand that there are consequences for good and substandard care for older adults that may take days or weeks to manifest. Third, in order to keep things running, particularly on evening or night shifts, facilities often depend on temporary staff from agencies that is costly and less committed to the facility and their residents than regular staff (Bostick et al., 2006), thus exacerbating the problem. The end result is that long-term care facilities are chronically understaffed and/or staffed with workers inexperienced in their current setting or in general and the residents living in the facility pay the price (Harrington, 2005). In the end if residents don't get quality, mindful care, their health may begin to diminish, which is not only a problem for them, but also puts them in the position to require more care. This vicious cycle can be prevented at the beginning with committed, well-trained and experienced staff. While quality of care indicators and facility characteristics are important the research indicates that none of these are as important to quality care as staffing variables are (Anderson, Hsieh & Su, 1998; Bostick et al., 2006). It is generally believed that both staffing levels and staff turnover determine the success and/or failure of care in long-term care settings.

The Eden Alternative™ is implemented in long-term care facilities in an effort to improve resident outcomes and to humanize care. While it does not directly address the issues raised here about substandard staffing, it seeks to change the way work is done on a daily basis by moving important decisions closer to the resident and streamlining the way care is given. Yet, implementing the Eden Alternative™ is not necessarily an easy process and some facilities have not been successful. What follows is a discussion of literature addressing barriers to introducing technology in long-term care settings. These barriers include financial, regulatory and staff issues. These are important to this work because in implementing Eden Alternative™, staff will encounter similar implementation barriers. In as much as this work takes the view that Eden Alternative™ is a soft technology used in long-term care facilities, the barriers to technology implementation are of particular interest.

Technology and Innovation in Long-term Care

Implementing technology in long-term care facilities appears to be a problematic process that is complicated by regulatory issues, some of which address antiquated equipment not anticipated at the time they were written; financial issues where the long-term care facility itself is chronically short of resources for daily functioning much less investment in innovation; and facility barriers to implementing and using innovations when they are available, usually due to training. Further, because of these barriers innovations are often not pursued by manufacturers or pushed for by facilities (Freedman, Calkins & Van Haitsma, 2005).

Regulatory barriers can prevent innovation. For example in some states licensing requirements indicate that a resident must physically push a call button to summon help when needed. This prevents facilities in these states from implementing new wireless systems that

41

monitor the resident and summon help if it senses a problem. In some cases, the innovations have been installed anyway but those facilities were required to have a hard-wired redundant system as a backup. While waivers are available, not all providers will pursue those (Freedman et al., 2005). Providers need to address these regulatory issues at the legislative level to impact changes; however, other barriers to technology innovation raise questions about whether this would be time well spent.

Financial concerns present a huge barrier to implementing technology in long-term care facilities. Administrators report that they do not have information about cost effective existing and new technologies for the long-term care setting and an understanding of how to afford these (Freedman et al., 2005). Most facilities cannot cut any staff and would not be able to afford costly technology any other way. There is simply not enough room in most facilities' budgets to allow for the purchase of a new technology that is not required and is unsupported by the reimbursement system on which facilities are dependent (Freedman et al., 2005). Because of these financial constraints, manufacturers do not expect to be able to sell products in long-term care settings and thus research and development has not been done. As a result, manufacturers don't have the knowledge about what technology would be helpful in the long-term care setting.

Other financial concerns appear to prevent technological innovation in long-term care facilities, particularly concerns with liability issues (Freedman et al., 2005) if a new technology were to fail; costing the resident their health or their life and raising the possibility that the facility could be sued. Further, technologies that increase independence among long-term care residents also increase liability because there is greater risk they may fall and hurt themselves.

Finally, there are staff barriers to implementing technology. Most long-term care facilities tend to attract workers who would rather work with people than technology and who are not highly educated in the use of technology. It is time consuming to bring everyone who needs to be familiar with the technology up to speed (Freedman et al., 2005). Staff may further have no real interest in learning to use new technology making training and buy-in difficult to obtain.

Of those facilities that do innovate, some characteristics are shared. Research (Castle, 2001) finds that small chain-owned facilities with higher percentages of private pay residents were more likely to be early adopters of innovations. For-profit long-term care facilities were more likely to be innovative because those facilities tend to have more private pay residents, are owned by chains and will have greater access to the resources namely money, needed to innovate. Further, smaller facilities are more likely to have more time and energy among staff members to innovate. Innovative facilities may be in markets with a lot of competition for residents and may feel they need to innovate to survive.

While Freedman et al. (2005) and Castle (2001) address the issue of introducing hard technologies and other care innovation into long-term care settings; practical considerations indicate that the same issues may hamper the introduction of a soft technology like Eden Alternative™. The conclusions the authors come to are apt for consideration here. There must be enough resources, information and enthusiasm to train people in the Eden Alternative™ and what it will mean to their work life. The regulatory environment must support the change to Eden Alternative™ or it will be much like putting a square peg in a round hole. Liability issues, particularly those around encouraging residents to make their own choices, even if those choices end up hurting them, must be addressed as a facility and

very importantly with family members. Leadership needs to become expert at managing change and encouraging buy in even if there is resistance at the same time.

Much of the published information about implementing Eden Alternative™ in long-term care facilities actually addresses these very issues, even though at the same time most do not explicitly consider Eden Alternative™ a technology at all. Dr. Thomas (2003) emphasizes training, creating the Eden Associate™ program by which many staff in facilities studied in this review and observed for this study were certified. In addition to leadership, addressing state and federal regulatory issues that prioritize the medical model for long-term care and buy in from the caregiving staff who are being placed in a position of authority over the needs of the residents they care for daily.

<center>*Review of the Relevant Eden Alternative™ Literature*</center>

Resident Outcomes

 Medical Indicators

The Eden Alternative™ movement seeks to change the long-term care culture for all who function in it including staff, administration and family members, not just the older adults who call a facility home. The literature presented here shows that Eden Alternative facilities and research involving them have yet to really begin to show that culture change improves resident outcomes on a consistent basis. In part this is because medical model indicators are often still used when measuring resident outcomes in particular. The available body of research examines the effectiveness of the Eden Alternative™ from several directions. First and seemingly foremost is the body of research that looks at traditional resident outcomes in long-term care including processes of care such as medication use, treatment, environment, care planning, incidence of infections and decubitus ulcers,

<center>44</center>

functional status and others (Coleman et al., 2002; Forbes-Thompson & Gessert, 2005;

Ransom, 2000; Thomas, 2003). Second is the body of research that looks at variables more

directly related to Eden Alternative™ goals of culture change including easing the three

plagues of living in a long-term care facility, loneliness, boredom and helplessness (Thomas,

2003), and other quality of life and psychosocial variables including depression among others

(Bergman-Davis, 2004; Hinman & Heyl, 2002; Kane, et al., 2007; MacKenzie, 2003;

Ransom, 2000; Rosher & Robinson, 2005; Ruckdeschel & Van Haitsma, 2001; Wylie, 2001;

Yeats & Cready, 2007). Other studies have emphasized family satisfaction with care and

staff perceptions of the care they give. Across the bulk of this literature consistently

significant results are nearly non-existent and inconclusive.

Much research has emphasized client outcomes in Eden Alternative™ facilities on a

number of levels, including those on which medical model long-term care facilities are

judged such as incidence of decubitus ulcers, infection rates, functional status, cost of care,

average number of prescriptions used, incident rates, mobility, mortality rates and

psychotropic drug use (Coleman et al, 2002; Hineman & Hyel, 2002; Ransom, 2000).

Generally speaking these data are obtained from either the MDS or OSCAR national

databases, both of which are self-reported by facility staff for quality improvement and

reimbursement from Medicare/Medicaid and Center for Medicare/Medicaid Services. While

there is some concern about both the reliability and validity of these measures they appear to

be attractive to researchers and certainly yield a large sample from which to compare

facilities. This research has yet to find statistically significant results that indicate that

residents in Eden Alternative™ facilities fare better in medical outcomes than those residents

living in traditional medical model facilities. In many cases there were improvements seen for residents in some facilities, but these generally were not statistically significant.

These results beg a couple of questions of interpretation of what the goals of implementing the Eden Alternative™ are. First, in challenging the medical model of care it does not appear to have been Dr. Thomas' (2003) goal to provide better quality medical care. Rather the goals have to do with everything else regarding care that the medical model does not address including the social, emotional and relational aspects of care. Therefore it seems expectable and certainly is a hoped-for outcome that medical model and social model long-term care facilities are not statistically significantly different from each other on indicators of quality of medical care.

Second, it further stands to reason that since both medical and social model long-term care facilities are indeed intended to provide long-term care that one would expect residents with similar types of medical problems that do not generally improve over time. All facilities are required by state and federal regulation to admit residents who do indeed need long-term care and justify the continuance of that care with their record-keeping with the MDS and OSCAR information systems. When and if residents recover from their illness they are generally transitioned to other living settings such as Assisted Living or home with family member support. Those who remain in long-term care for a long time or the remainder of their lives really should not normally be expected to make significant recovery. Thus, research looking into improvements in resident medical outcomes really should not see much change.

Social and Quality of Life Outcomes

Quality of life measures appear to be appropriate measures of culture change in long-term care. Eden Alternative™ goals include a radical change in the social environment in a facility (Thomas, 2003). Resident quality of life has been studied both qualitatively and quantitatively looking at a variety of variables including well-being (Wylie, 2001), physical, mental, social and emotional functioning (Hinman & Heyl, 2002), experience of life in the facility, what they liked best and least, perceptions about what had changed since the Eden Alternative ™ had been implemented (Wylie, 2001), levels of depression, loneliness and helplessness (Bergman-Davis, 2004), specific reactions to the environmental changes (Ruckdeschel & Van Haitsma, 2001), perceptions of privacy and autonomy (Kane, 2007) and included measures taken from residents, staff and their family members and friends who visited on a regular basis (Bergman-Davis, 2004; Kane, 2007; Ruckdeschel & Van Haitsma 2001; Wylie, 2001).

Results from these studies are quite mixed. Measures of well-being in the Wiley (2001) study were not statistically significantly different for those residents living in an Eden Alternative™ facility. However, Bergman-Davis (2004) did find statistically significant improvements in both depression and helplessness for those residents in Eden facilities but not for loneliness. When studying the impact of the environmental changes made when Edenizing a facility such as the plants, animals, food, etc, the results are also equally mixed. Some residents report great affinity with the pets and pleasure at the environmental changes (Ruckdeschel & Van Haitsma, 2001; Wiley, 2001) even if at the same time they are unfamiliar with Eden Alternative™ as a term and what it was supposed to accomplish.

Family Member Satisfaction with Care

Little research has focused on family satisfaction with care under the Eden Alternative™ and what results are available seem contradictory. When family members are asked about their perceptions about how the residents are doing in the new social model of care, families felt generally more positively about the facility and the care their family member received in addition to perceiving improved staff ability to do their jobs and more active social lives in the facility with more visitors (Ransom, 2000). However, Yeatts and Cready (2007) found that family members did not see that their family member was getting better care overall.

Family members who are not satisfied with the care their loved ones are receiving or the environment in which it is given are more likely to complain about the care or move them to another facility. Family members reported that the most positive changes were in the respectfulness of the staff, interaction with animals, and visits from children (Rosher & Robinson, 2005). It appears the improvements in the environment in the facility make the facility more pleasant to visit for the family members and these family members feel the improvements make it a more pleasant place to live (MacKenzie, 2003; Rosher & Robinson).

However, some family members reported no significant differences in the care received by their loved one including no improvements in responses to complaints, staff listening to concerns, time spent on care needs or concern about resident comfort (Yeatts & Cready, 2007). So while family members may find the facilities more pleasant to visit and the staff happier, there does not appear to be a change in the quality of care provided by an Eden Alternative™ facility (Yeatts & Cready, 2007).

Employee Satisfaction with Care

Many of the changes the Eden Alternative™ makes impact the work tasks and work environment for the nursing assistants in the facility. The nature of their daily work shifts when residents make choices about when to wake, bathe, eat and recreate. Their schedules shift when a facility implements self-scheduling, meant to allow flexibility for scheduling work around family needs. Self-managed teams begin replacing hierarchical management coming from the top down with the intention of putting caregiving decisions closer to the resident, in the hands of the people who know their needs the best. Further, teams can make better decisions than individuals when implemented well (Coleman et al., 2002; Forbes-Thompson & Gessert, 2005; Ransom, 2000; Ruckdeschel & Van Haitsma, 2001; Thomas, 2003; Wiley, 2001). Staff has in some cases become more interested in pursuing more training and credentialing to support their work and turnover has decreased (Mackenzie, 2003). In most studies (Ransom, 2001; Wylie, 2001) staff variables saw change, but not statistically significant change. Some Edenizing facilities saw reductions in absenteeism, a drop in employee injuries and a steady increase in self-scheduling. However, in other studies CNA turnover or intention to change jobs was unchanged (Yeatts & Cready, 2007). In some cases job satisfaction improved (nurses, housekeeping/maintenance, dietary) and in some cases job satisfaction did not improve (CNAs and administrative staff) (Ransom, 2000).

Conclusion

Taken together this body of research depicts long-term care facilities as somewhat lumbering organizations encumbered by regulation and the weight of their own characteristics and problems. While most staff work in long-term care facilities with good

49

intention (if only to support themselves and their families), care is often substandard and unpleasant for the resident and the staff providing it. There probably will not be just one solution to the problem, but more likely a multi-faceted one that changes long-term care organizations on every level. The Eden Alternative™ is one such effort, aimed at improving resident outcomes, making facilities more pleasant to work and live in. Any change such as this will impact the organization and the social structure of the facility and in the manner in which care is provided. Well-intentioned research efforts thus far have yet to look at the broader effects of culture, even though Eden Alternative™ is a culture change process, and how it resists or encourages change. This investigation takes a new stand on the nature of the cultural and organizational changes where disruption of the social structure is anticipated and accounted for and the whole process of change is set in this context. This will offer organizations a new way to think about and plan culture change—taking cultural morphogenesis into consideration. This also offers a way to understand why different long-term care facilities do not change their culture in the same way nor do they finish the process looking the same. Each culture changes idiosyncratically and each becomes a different entity through the process of change.

Methodology

Barley's (1984) Model

A major part of this research replicates the study methodology of Stephen Barley (1984) who pioneered observational and analytical techniques that could be used in investigations of organizational culture change processes when new disruptive technologies were introduced. This research also explores organizational issues raised by Barley (1986) in regard to centralization. The idea of centralization is important to organizational literature as a determining factor in consideration of structure and authority. It is important to this study for similar reasons, as it is hypothesized here that an indicator of successful cultural change is indicated by a lower level of centralization. In other words, the degree of centralization is taken to be a primary indicator of organizational change.

Barley's work (1986) was groundbreaking in organizational literature and remains the most cited article ever published by *Administrative Science Quarterly*. Barley (1986) noted that the introduction of CAT scan technologies in hospitals were "occasions that trigger social dynamics which, in turn, modify or maintain an organization's contours…[believing] it is quite likely that identical technologies used in similar contexts can occasion different structures in an orderly fashion" (p81). In order to understand the sequencing of this 'orderly fashion', Barley (1986) proposed his "sequential model of the structuring process" with its emphasis on scripts (p. 82, see Figure 1 below).

Barley (1984, 1986) uses this model to address how interactions and influences between the institution and action (players or roles) evolve. He sees this as a cumulative process as

constraints and impacts compound over time. In this model, the actual arrangement of a setting moment-by-moment ("realm of action") is juxtaposed against the idealized social logic from which people act daily ("institutional realm") and the two act against each other in ways that are visible and measurable in the organizational members' behavior and interaction through the scripts they use (Barley, 1984, 1986). An actor's identity is composed of the position they play, their behavior and their speech (also composed of form, content and unfolding action). In particular, Barley's (1984, 1986) work relied on the interpretation of scripts, which he saw as a behavior grammar; patterns of interaction which define roles. Scripts develop into plots whose reoccurrence is the basis for interaction and order in the setting.

For his purposes, Barley (1986) felt that "new technologies in formal organizations would either **confirm or disturb** engrained actions to reformulate or ratify scripts" and become the 'way we do things around here'"(emphasis not in the original) (Barley, 1986, p. 84). In order to investigate this question he functioned for one year as a participant observer in the departments of radiology at two different hospitals which had two different formal structures.

This is the morphogenetic cycle to which Archer (1996) refers. This pressure to change routine actions after the disruptive technology is introduced is the pressure to change through morphogenesis with the resisting force to stay the same—morphostasis. The tension experienced during the moment-to-moment push for change is uncomfortable for the actors involved. Resolution of these tensions results in a restructuring of the environment anew (Giddens, 1991).

Figure 1: The "Social Organization" from Barley (1986)
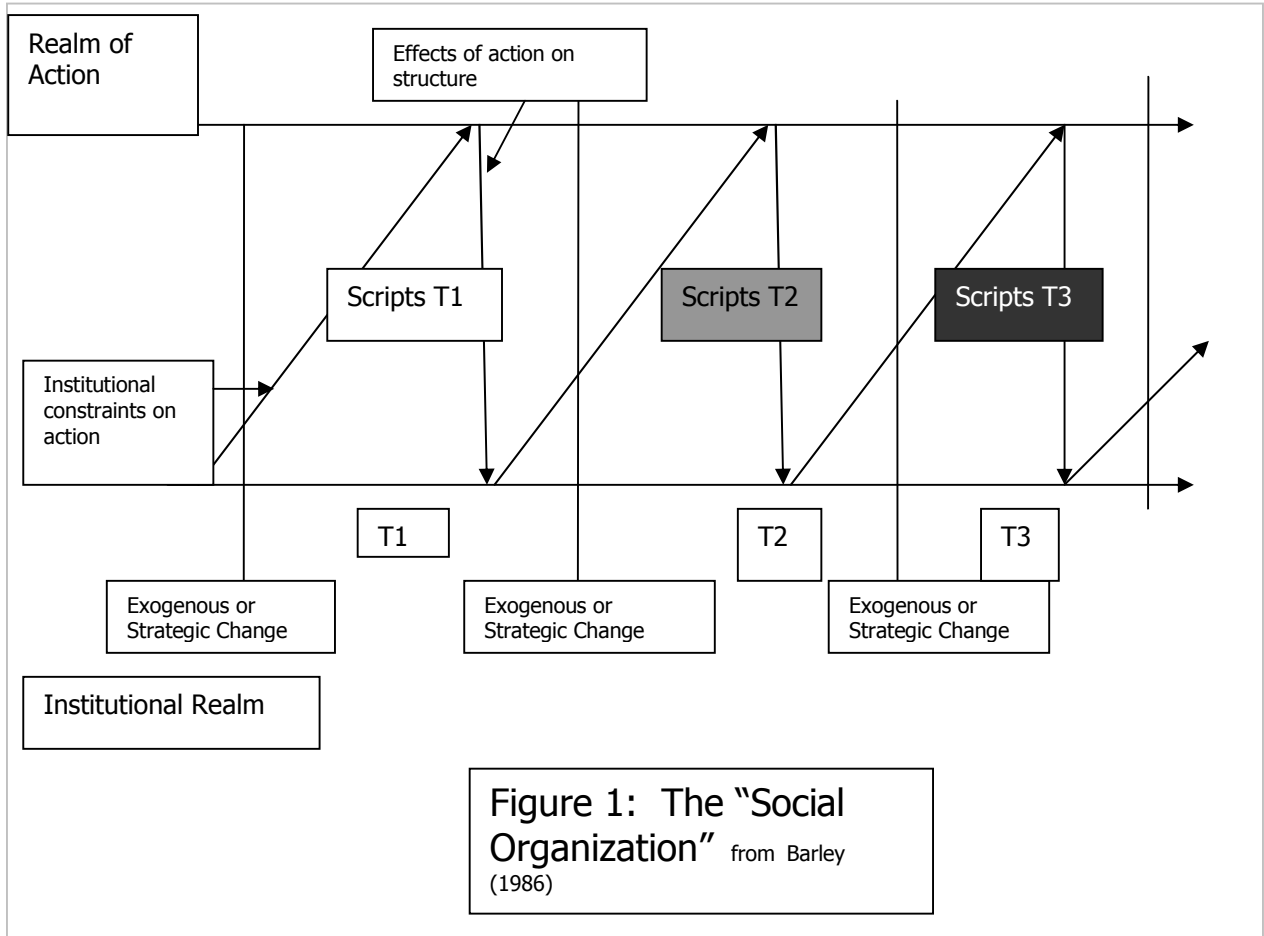
Barley (1984, 1986) took extensive observational notes during this year. From the observational data, he undertook data analysis. First he defined the phases of structuring by talking with the staff in each department about when key transitions occurred in the structuration of the department and gained consensus about when phases shifted after the CAT scan machines were introduced in both settings. Scripts were identified arranging the interactions in chronological order as they are the recurrent interactions and behaviors that constitute each individual's role in the setting. To identify these scripts, Barley (1986) conducted thematic analysis of his notes taken during observations, looking for similar ways of saying things in relation to the changes or individual behaviors in the setting.

From the scripts Barley (1986) identified plots which contain scripts of a common theme which recur in the setting over time. These scripts occur more regularly and by this repetition serve to reinforce roles, social structure and expectations. "The link between action and formal structure can be visualized as a chain of successive encodings that abstract, first from instances of action and interaction to properties of scripts and then, from scripts to properties of formal organizations…formal organizations [are] the grammar of a set of scripts" (Barley, 1986, pp. 83-84). Plot frequency was used to identify the characteristic scripts of the phase (Barley, 1984, 1986). These data were then used to compare role relationships in a condensation process.

Barley (1984, 1986) linked scripted parameters of the formal structure by developing a measure used to code decision making based on an analysis of the scripts and plots he identified; this was his measure of centralization. When a larger proportion of decisions were made by an authority figure (defined by traditional departmental hierarchy) a higher score was assigned on a centralization profile.   Conversely, when decisions were made by those staff members not in authority, a lower centralization score was assigned. These scores were plotted over time to see how this indicator of centralization changed over time (Barley, 1986).

The idea of centralization is important to long-term care facilities which are *Edenizing* because this social technology seeks to specifically impact how, when and where decisions are made in caring for the resident. Thomas (2004) made flattening the managerial hierarchy central to the Eden Alternative™, where managers support the direct caregivers and caregivers are empowered to make decisions to the benefit of the residents for whom

they care. As a result there should be increased collaboration at all levels of the organization as they become *Edenized*.

Black, Carlile and Repenning's (2004) Model

Black, et al. (2004) expanded on Barley's (1986) thinking about centralization where they looked in more detail at the type of leadership and how it impacted restructuring after the disruptive technology was introduced. They looked at the role of the work required in the setting—or activities. These are the specialized knowledge required to accomplish the work in the setting. As a result each setting will have different activities but each setting will have things that must or should be done to get the work done. Black et al. (2004) looked second at the accumulations of knowledge/expertise and the power involved as a result. Those who have the knowledge and expertise in the setting usually do have more power. And finally these researchers looked at the recursive dynamics between the activities and expertise developed by the actors involved (Black et al., 2004). "The question becomes, then, what kinds of knowledge matter—expertise in running the machine, expertise in interpreting the scans, or both? Further, how can expertise explain the different interactions between doctors and technologists that emerged at the two hospitals despite similarities in settings, technology and staffing changes? [W]hat can relative differences in knowledge tell us about the disruptions or benefits this technology had on each organization (Black et al., 2004, p. 578)?"

To answer these questions, Black and her colleagues (2004) started where Barley (1986) left off, and re-analyzed his data. Using a dynamic modeling process to develop a grounded theory, these authors conclude that situations with balanced expertise optimize the use and implementation of the technology. Where expertise was heavily weighted in favor of

the radiologists the traditional hierarchical patterns of relating and working were reinforced; the radiologist guided the type of scan needed and results interpretation. Where expertise was too heavily weighted in favor of the technologist the traditional hierarchical patterns were so disrupted that both technologists and radiologists were uncomfortable. Thus the radiologists withdrew from the scanning room and limited the opportunities for themselves and the technologists to learn. When expertise was balanced where all parties knew something about the technology (technologists) or interpretation of the results (radiologists), a more cooperative and collaborative learning environment was supported. It was this cooperative atmosphere where most of the restructuring occurred in the two departments Barley (1986) observed (Black et al., 2004). Figure 2 below depicts this dynamic modeling process as developed by Black et al. (2004).
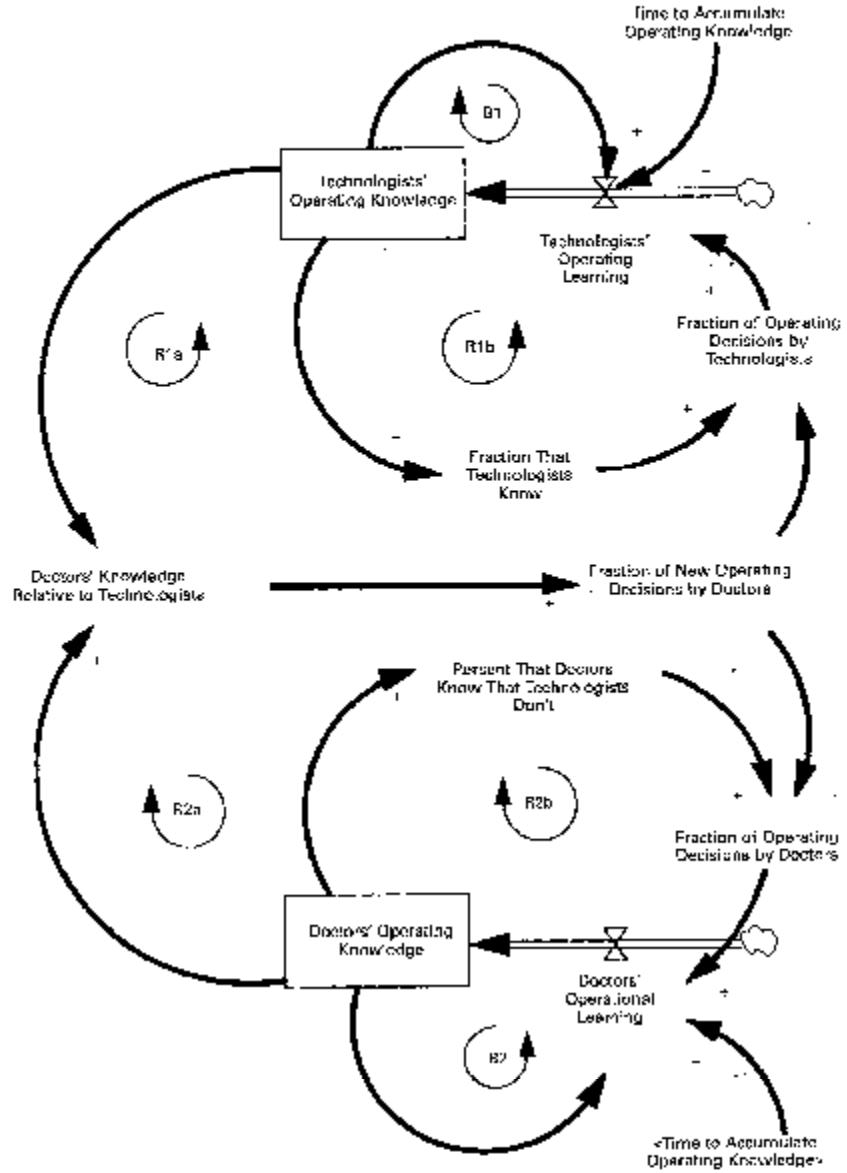
Signs (+ or –) at arrowheads indicate the polarity of casual relationships. A plus denotes that an increase in the independent variable causes the dependent variable to increase, ceteris paribus, and a decrease causes a decrease; that is, X → +Y ↔ ∂Y/∂X > 0. Similarly, a minus indicates that an increase in the independent variable causes the dependent variable to decrease; that is, X → –Y ↔ ∂Y/∂X < 0. Boxes represent stocks; arrows with valves represent flows. A stock is the accumulation of the difference between its inflows and outflows (see Sterman, 2000).

Source: Frot et al 2006, p58.

Figure 2: Overview of initial model formation

57

Research Design

This research is a qualitative study which uses an orientational inquiry perspective (Patton, 2002)   Thus, this research "begins with an explicit theoretical or ideological perspective that determines what conceptual framework will direct fieldwork and the interpretation of findings. (Patton, 2002, p. 129) The philosophical assumptions underpinning this research are the tenets of structuration theory, how it influences culture change and theories of disruptive technology discussed in Chapter 2 in detail. These include the belief that system structure and culture is a social product and technologies, soft or hard, not only support the work systems perform, but new technologies disrupt systems when they are introduced. This disruption and its resolution are central to how the technology is implemented in a setting and its ultimate success.

This design is appropriate for this research because this study seeks an understanding the disruption in the organizational culture caused when the Eden Alternative™ technology is introduced into a setting. Because the nature of this technology is social, it was appropriate to observe interactions and relationships in the settings at the time of the change and for a period thereafter. This research does not seek to discover these elements of theory, they are already well written but this research does seek to connect them to each other in a new way. One of the lynchpins of the previous study done by Barley (1984, 1986) and in conformance with both the theory of structuration (Giddens, 1991) and morphogenic theory (Archer, 1996) is that similar technologies will disrupt similar settings in different ways, depending on the idiosyncratic structures and roles in those individual settings. As a result it was important to observe more than one discrete structure (long-term care settings) to see how each responds in unique ways. Two long-term care facilities (East and West, names of

the facilities have been changed for the purposes of this dissertation) in the process of

Edenizing were observed over the course of one year and nine months respectively.

Observations were done by one researcher using similar processes, described below.

Data analysis identifies themes with a theoretical basis which are then arranged

chronologically. The chronological arrangement is then analyzed to identify stages of

structuration and the key scripts of those phases with an emphasis on decision making as a

reflection of centralized or decentralized management approaches to decision making. Data

analysis will identify these stages of structuration and the key scripts and these will be

examined to see what trends in decision making and centralization are evident. More detail

of data analysis is provided below in the discussion of methodology.

The two facilities are compared to each other as part of data analysis as well, to see if

their adjustment to *Eden* has tracked in the same direction or not at about the same time or

not. The similarities and differences between the two facilities highlight the impacts of the

disruptive nature of *Eden* itself and how that disruption is resolved. Finally, the choice of

methods is also guided by this researcher's attempt to replicate Barley's (1984, 1986) work

and the necessary loyalty to the methodological decisions he made at the time. However,

during data analysis decisions were made about shifting methodologies away from Barley

(1984, 1986) Black et al (2004) as neither was sufficient to model the interactions between

and among the various roles in the settings observed (more detail on this change provided

below and in Chapter 4).

The qualitative emphasis in this research necessitated methodological flexibility and

as such these designs were emergent. Patton (2002) indicates that "design flexibility stems

from the open-ended nature of naturalistic inquiry as well as pragmatic considerations. [As a

result] naturalistic inquiry designs cannot usually be completely specified in advance of fieldwork" (p. 44). Thus, while a plan was laid out for how this research would proceed at the beginning of the study, there were allowances necessary where circumstances shifted over the observation period.

As culture change takes place there are a number of anticipated organizational outcomes to look for. However, it is important to note that these do not appear in any particular order because each organization will implement culture change in a different way. Organizationally, culture change moves decisions for resident care as close to the resident as possible. In many organizations this means the direct caregivers (Certified Nursing Assistants, CNAs, for example) may be empowered to make more decisions for or with their residents. Often this necessitates flattening the organizational chart. Many organizations cross train or cross certify staff so that care can be more seamless for the resident. For example, a nurse or administrator is usually prevented from helping feed residents who need assistance during meals because a specific credential is required for feeding in the State of Colorado (Health Care Facilities, Powers and Duties, C.R.S. §§ 25-3-103, 1970). Cross training (and in some cases cross certification) is one way the resident's needs can be met by those people available, without much interruption (Bergman-Evans, 2004; Coleman et al., 2002; Deutschman, 2005; Rosher & Robinson, 2005; Roth, 2005).

Culture change also includes changing the physical environment in the long-term care facility. Sometimes this is as simple as changing paint colors, furnishings, adding plants or other accessories. In many cases it includes encouraging residents to choose paint colors, decorate their rooms with personal items or even bring a pet with them. The facility may be remodeled to make cozier neighborhoods and eliminate nurses' stations, where people take

their meals together, socialize and make connections. All of these changes were available to me in the observations at each facility (Bergman-Evans, 2004; Kane, 2001; Kehoe & Van Heesch, 2003; Thomas, 2003).

Finally there are changes in the nature and number of decisions a resident is encouraged to make for him/herself. These usually include options for bathing, dining (both time and choices of what to eat), sleeping, activities and others. Often these are the earliest changes implemented in the culture change process and were visible and measurable in observations with staff.

As culture change proceeded and some of the above innovations implemented, how staff accommodated these changes was noted, as well as how smoothly these accommodations were going, what problems or hold-ups there were and to some extent how they felt about them. Staff reflected on these accommodations during both the observations and on surveys and they reflected how the organization as a whole was adjusting to the disruption from culture change. It was important to integrate the responses and interactions documented over the course of the study to help me understand that adjustment over time.

The following operational research questions guided the qualitative components of this investigation:

1. What meaningful changes in structuration including roles, rules, resources and use of power result from the implementation of a social technology in a long-term care facility?

2. What changes in social work roles will occur as the Eden Alternative™ is implemented?

3. How does a disruptive social technology impact long-term care facility structure and how does that disruption manifest?

4. Will either Barley's (1986) sequential model of the structuration process or Black et al.'s (2004) model recursion analysis explain the disruptive cultural impacts of the same social technology in different long-term care facilities?

Methodology

Piñon Management Inc hosted this research. Two long-term care facilities in the Denver Metropolitan Area associated with Piñon Management were identified: East and West (the names of these facilities have been changed to protect the confidentiality of the study participants). West was located in a well-established suburban community west of downtown Denver. At the time this research was initiated, the facility was licensed for 76 beds, but the administrator reported a plan to reduce the number of beds to 70, making room for some Medicare suites and a chart room on the main floor. The facility was built in the traditional medical model for long-term care facilities where there are two units each on a long hallway with a central nurses' station. The front lobby served as the primary gathering area for residents with a large living room furnished nicely with a fireplace. There was an aviary with birds and a number of plants in the living room. The facility also owned and cared for one dog and two cats. Residents were also given the option of having birds in their rooms.

East was licensed for 62 beds, with Medicare suites. Like West, it was built on the traditional two unit design with long hallways connecting the rooms and central nurses' stations. There were offices off of the front lobby with a couple of quiet sitting areas nearby.

Residents at East enjoyed a number of comfortable sitting areas. The facility provided

reading material, televisions with satellite TV service, a 'fireplace' room (with an artificial

fire lest anyone get injured) with a computer. This computer was set up on the "It's Never

Too Late" (IN2L) system accessible by touch screen and developed to be used in long-term

care facilities like East and West. The facility owned and cared for a number of cats and one

of the staff members regularly brought her dog to work with her. There were a number of

birds in residence and the facility was decorated with mostly artificial plants.

The chosen facilities were in the early stages of a culture change process, but had not

have fully *Edenized* when the research began in the summer/fall of 2007. The same

methodology was used to observe both facilities. Qualitative methods are described below

first, followed by quantitative methods and the section will conclude with notes about when

and how the methods were combined in the data analysis.

As the sole investigator, the author functioned as an observer in the each of the two

long-term care facilities chosen for this project (two different formal structures) over the

course of 9 months to one year. Each facility was handled as a separate unit of analysis,

where comparisons were made between them only after analysis was concluded on data

collected from each facility. Extensive observational notes were taken during the

observation period and a brief survey was given to staff at all levels composed of open-ended

questions at the end of the observation period. From the observational data, extensive data

analysis was undertaken and will be described below in detail.

Sampling Plan

Working from the premise of emerging design (Patton, 2002) there was a two stage

sampling process. In the first stage, the population was identified by choosing facilities in

which to observe. As noted above, West and East agreed to participate in this research. Initially, North another Piñon Management Inc facility was chosen to participate in this research. Efforts were underway to orient the researcher to the setting, introduce the study to the facility staff and start observations when the facility administrator resigned. The corporate officers at Piñon Management Inc decided it would be best to select a different facility and West was added to the sample. Data collection at West began two months after it was started at East. Selection of the initial two facilities and reselection of an additional facility was made from among those facilities associated with Piñon Management using an operational construct sampling strategy (Patton, 2002). Facilities were chosen to participate which fit the theoretical constructs underpinning the investigation. These include:

- The facilities were very new to and beginning the process of culture change preferably under the Eden Alternative™ model.

- The staff and administration were willing to partner with the researcher for the time-frame required for the study.

- Each facility was located at a distance within the Denver Metropolitan Area which makes the frequent researcher observations practical and affordable in time and travel.

This sample was appropriate for this study because specific characteristics must be present in order to successfully implement the methods as designed. Any facilities which volunteered to participate in the study but were not chosen due to their fit to the criteria were notified about the researcher's decision and why.

Data Collection: Observations

According to Patton (2002) there are six dimensions to consider when planning data collection in participant observation research and these are: the role of the observer, whether the observer will be an insider or outsider, whether research is conducted by a team or individual, whether the observer's role is disclosed to others, how long the observations will be and the focus of the observations. Participant observation was appropriate to this research for a number of reasons. While researcher presence in the setting as an observer might have been disruptive to the organization, it was less disruptive than some other choices might be such as if the researcher were to try to function as a staff member, for example. Second, observations of this nature are intensive and time/energy consuming and trying to add a new role in this setting would have made the investigation that much more difficult to conduct. Third it was important that observations be well documented, requiring extensive note taking. Fulfilling a staff role at the same time would make the required documentation very difficult to do. Fourth, given that this research replicates a well known methodology from Barley (1984, 1986) it was important to be as true to his previous methods as is possible and practical.

For the current study, the researcher's role was onlooker participant. Members of each community were told that the researcher was an observer conducting an investigation about the culture change process and its impact on the organization. Each person being observed was given a project information sheet which briefly explained the study and offered contact information for the dissertation chair and the Institutional Review Board at the University of Denver if there were any questions or concerns. These were distributed in a

meeting at which the researcher explained the study and how it would be conducted. The dissertation chair, Dr. Walter LaMendola also attended these introductory meetings to answer any questions staff might have of him. Staff in attendance at the meeting was instructed to ask the administrator for another copy if they needed it and a number of copies were left with each facility. The researcher was in each setting up to 8 hours per week over the entire course of the observation period. Primarily daily meetings at all levels of the organization were observed including morning management team meetings, twice monthly pay day meetings, nursing staff meetings, CNA meetings, culture change meetings and others as they could be fit in. There was an emphasis on maximum variation to improve researcher understanding of how the facility operates.

Even though the researcher functioned primarily as an outsider, given that she is a gerontologist she was an informed outsider. She did not contribute as a social worker to resident care planning, or staffing patterns established by facility policy, but observations and interactions were collected with this specialized knowledge as a lens.

The researcher was the sole researcher observing in the settings. The detailed documentation of these observations constituted the qualitative data for this research. As this project is a primary component of successful completion of dissertation research for the researcher's PhD in social work, she was required to be the sole and primary investigator on this project.

Staff was informed that the researcher was conducting a study and had a particular interest in culture change in their setting. However, residents and family members were not informed about the research. This was appropriate in this situation because interactions with residents and their family members were minimal, and no data was collected about resident

outcomes. Questions about the project were answered emphasizing the researcher's interest in organizational change, not specific individual staff or resident outcomes. If resident interactions or concerns are mentioned it is done so in order to highlight interaction about their care in the facility. The Staff was assured that the information they provided was confidential and stored in a secure location away from the facility. All staff and administrators were assured that no resident information was being collected for this project. They were provided enough information about the study without biasing them either positively or negatively about this research.

Preparation for the study included developing relationships with the sites and completing Human Subjects Approval for sites agreeing to participate in the study. The Project Information Sheet was developed for individual participation in the study. A signed consent form was developed for individual consent to the survey which was administered at the of the observation period in each facility. The consent was completed at the time staff members were asked to complete the survey instrument itself at the end of the data collection period. The survey and the consent (described in detail below) were collected separately so names would not be associated with survey responses. The project information sheet and the consent form were approved by the Institutional Review Board (IRB) at DU and by the facilities involved before they were used.

Participant observation took place over the course of 12 months at East and 10 months at West. The entire data collection period was between June 2007 and July 2008. Data collection at East began in June 2007 and data collection at West began in September 2007. In October and January of the data collection period the researcher developed health problems requiring two surgeries, one of which was major. As a result there were two breaks

in data collection, one in October 2007 for a little more than a week and one beginning in January 2008 for approximately 2.5 months. Data collection resumed at the end of March 2008 and was conducted in both facilities through the end of June 2008.

The focus of the observations was on developing an understanding of how *Eden* as a social technology disrupts the culture in each long-term care setting when it is introduced, and then how the culture responds to the disruption by re-structuring to accommodate these changes. This was somewhat broad because these disruptions impact the organization at every level. Consequently the researcher was interested in looking at a broad range of interactions with all people involved in the long-term care setting; however observations were focused on these theoretical issues. Some emphasis was placed on observing social workers in both settings because they are natural experts on the impact of social changes in a setting. The researcher was particularly interested in what changes occur in social work roles in both observed facilities as a result, and what those changes may mean for the overall success of culture change during the observation period.

Observational Notes

Note taking broke down each visit to each facility into three sections detailing observations, personal notes and a diagram of the job roles (if it was known) of those who attended the meeting. This note taking is appropriate to this study because it breaks down the data into specific conceptual units that are important to what the researcher hopes to learn. Further, the structure of the notes encourages non-judgmental and clear descriptive language in the areas covered and gives the researcher the opportunity to write about personal responses in a separate section.

Observation notes included what happened, when, where and why. This includes the detail of what was seen in non-interpretive and descriptive language (Patton, 2002). Further, when documenting the details the researcher used comprehensive and thick descriptions and did not assume anything. For example, if the researcher saw a group of people standing, evenly spaced in front of a door to the dining room, she described this and did not summarize it by saying they are standing in line. Summarizing the situation by saying they are standing in line would compromise a lot of detail and the assumption could be wrong.

Personal notes included the researcher's feelings and responses to the environment; her assessments and curiosities about the setting and initial thoughts about the meaning of the details were noted including how the environment felt as an observer. They also include notes about what she did in the setting, where she sat, how she interacted in the environment, and how the environment felt as an observer. These notes were helpful in reconstructing the observation during data analysis, but have more to do with researcher behavior and less to do with what is happening.

In taking these notes the researcher focused on obtaining extensive quotes from all members of the setting and details of interactions observed. At the end of each day in observation, as much detail of the day as possible was immediately documented using the above format, including the quotes in order to recreate the setting as faithfully as possible. These recreations, particularly the quotes, were used to identify the scripts that comprise the first level of analysis as discussed in the section on data analysis.

Data Collection: Research Memos

Research memos documenting overall methodological changes and planning through the analysis process were maintained. These memos include an active time line and any adjustments in planning that were required over the course of the study.

Data Collection: Surveys

At the end of the observation period at each facility all staff and administration were asked to complete a two page survey comprised of open-ended questions (see Appendix A attached). This survey asked their view on culture change as it is progressing in their facility including changes in their job tasks, access to resources, and changes in organization rules. Individual perceptions of changes in the environment physically, the ways conflict is handled and team work were explored. Each staff member or administrator was asked to identify only their job title and length of employment in the current setting. Each person agreeing to do the survey was given a consent form describing the survey, the assurance of confidentiality and how the results would be used. A second page attached to the consent form was used for their signature and was handed in separately from the survey itself. Survey participation was voluntary and there were no employment related negative consequences for anyone who did not wish to participate.

Each survey was assigned a number and the initials of the facility in which the staff member worked. Answers were individually transcribed verbatim into a main document to permit analysis of the answers. No answers were changed and where they could not be deciphered no response was recorded.

The survey enhances study credibility by triangulating the observations because it asks staff and managers to report in their own words the same changes the researcher is looking for. This will be discussed in the further detail below.

Data Collection Sequencing

Planning the sequence of observations and surveys is an important element for this methodology. Initially the emphasis was on observations in the two facilities in this study. This helped the researcher learn the rhythm of the setting, who the staff is, what their roles are, what the schedule is including important meetings and meal times, to what extent the facility is *Edenized* and what the future plans are for all these things while data were being collected. Once the researcher came to understand each facility observations became more targeted to specific meetings, times and events that were significant to the particular facility. General observations of everyday life were ongoing at this point as well, but there was less emphasis placed on them. Initial learning observations took about 2-4 weeks per facility when the researcher observed approximately 8 hours weekly in each facility. The subsequent phase consumed the rest of the observation period of up to ten months to a year. There was a brief re-adjustment required when the researcher returned from medical leave and it took her a week or so to get used to the note taking process again.

The plan had been to conduct some concurrent data analysis that would inform choices about when and where to observe next. However, due to the researcher's health problems during the data collection period (and noted above) concurrent analysis was not as in depth as was hoped. Data analysis will be discussed below in more detail below.

Data Analysis

Once an observation was completed the researcher immediately spent time reading through the notes, filling in detail and completing thoughts before the memory of the observation faded. Initially the researcher transcribed the notes from observations herself however, due to her health issues, transcription was delayed and much of it was accomplished after data collection was complete. The researcher did most of the transcription herself but once she had neck surgery she began using a transcriptionist. She would dictate the notes on a digital audio recorder and email the files to the transcriptionist who lived in another state. Once completed the transcriptionist would email the file back and the researcher would double check to make sure the file was accurate and make corrections. Files the researcher transcribed herself would also be double checked for accuracy prior to data analysis.

After a couple of months of data collection the researcher developed a start list of codes to guide the data analysis process (Miles & Huberman, 1994). These codes were derived from various sources including theory, Barley's (1984, 1986) methodology, Black et al.'s (2004) subsequent reworking of Barley with a focus on leadership and the balance of power and activities in the setting, Giddens (1984) and Taylor et al (2000). The start codes are attached in Appendix B. Qualitative data analysis was conducted using Atlas-ti (2007) software.

The evolving nature of the qualitative methods used in this study allowed the researcher to refine methods or analysis as the study progresses. This is standard procedure in qualitative or mixed methods studies and allowed for methodological refinement as the study

progressed (Creswell, 2003). The researcher soon discovered there were a number of the codes on the start list that did not get used in actual analysis. These were subsequently refined by eliminating codes that had not been used through four readings and coding of the data. Some codes needed to be expanded with more detail based on their actual usage as data analysis progressed. For example, there was initially one code for "decision-making" however the researcher realized while working through the transcripts that the administrator's direction giving was more substantial and carried more weight as she was the ultimate authority on site. Therefore, administrators' direction giving was coded separately from all other direction giving. Still others were linked together in families to reflect what was happening in the data.

Analysis proceeded similarly to what was outlined above in Barley's (1986) methodology however there were some changes once the stages of structuration were identified. How and why these changes were made will be described in detail in Chapter 4. First, the researcher read through the transcripts coding excerpts. This was repeated four times to insure the researcher could read through a transcript without recoding. This was an indication that coding was accurate to her perceptions of the data. Next the researcher identified the phases of structuring and when or if the phase-shifts occurred as a result of culture change. Once those phases were identified the transcripts were arranged in chronological order and a report run on Atlas-ti (2007) that could then be exported to a spreadsheet program that indicated the most common codes in the phase. The totals for each phase and each code were identified so the researcher knew what codes were most common at what point in time. This yielded 19 most common codes at West and 25 most common codes at East. At that point each of the most common codes in each phase was reviewed for

internal consistency and any data not fitting the code was re-coded at that time. From this the data was used to answer each of the operational research questions posed above.

Trustworthiness and Credibility

According to Creswell (2003), there are a number of steps that should be taken to improve the trustworthiness and credibility of a qualitative study. First among these is triangulation, meaning using "different data sources of information by examining evidence from the sources and using it build a coherent justification for themes" (p. 196). Patton (2002) goes on to recognize four distinct types of triangulation. For the purposes of this research two of these--methods triangulation and triangulation of sources are relevant.

Methods are triangulated in this research because data was gathered from both qualitative observations and surveys. The data are integrated as part of data analysis. In this way the methods are distinct from but supportive of each other and the conclusions ultimately drawn from the data once it is collected and analyzed. Sources were triangulated in this research as well. Data were collected from observations and surveys.

The survey is a particularly important method of triangulation because it offers the researcher data from the facilities themselves, in the words of those who have been observed over the course of the study. In this way the survey will support or contradict the findings from observations and interpretations made of those findings.

Creswell (2003) includes the idea of using "rich, thick description to convey the findings [giving] the discussion an element of shared experience to improve trustworthiness" (p. 196). Weekly observations in the settings under investigation and researcher notes and impressions convey this rich description and provide this experiential element for the

intended audience. This is augmented by extensive use of participant quotes which give direct voice to those who have participated in this investigation and provided valuable data.

Third, it is important to be clear and open about what bias the researcher has about the topic and setting under study. This honesty allows the audience to assess for themselves the impact they believe these biases may have had on the study itself. It gives the researcher the opportunity to keep this actively in mind while conducting the study. The researcher's perspectives have been outlined as part of this narrative (below) and she worked to keep them separated from her thinking as she collected, analyzed and drew conclusions from the data.

Presenting negative or discrepant information is another important element of establishing trustworthiness. Data analysis included those themes that support the research questions and early conclusions but also those that run contrary to it or do not fit (Creswell, 2003). In absence of this the researcher runs the risk of simply looking for and identifying only those events which fit their presuppositions. Data analysis for this project included identifying unexpected or incongruent findings, themes and results. These finding were included here in the final write up of this dissertation. This helps the audience better understand the conclusions that were drawn and offers a more complete picture of all the data collected in the study.

Creswell (2003) further recommends spending a long period of time in the field, thus giving the researcher the opportunity to learn about the environment in depth and detail. The researcher spent 10-12 months in the field conducting this investigation. Piñon Management Inc. staff and administration in the individual long-term care facilities have expressed some concern that this is not a sufficient time to learn about the culture change process. Piñon

75

Management and the individual facilities have agreed that the study can continue beyond the period of this dissertation if it is warranted and appropriate at the time this work is completed.

Other elements Creswell (2003) recommends include using peer debriefing and external auditing. Peer debriefing involves asking a colleague with experience and training in this methodology to review the study in its entirety and ask questions. An external auditor would be a reviewer who is unknown to the researcher, but knowledgeable in the methodology that would review and ask questions as well. Auditing in this way helps to ensure the account makes sense and is clear to other readers aside from the researcher. However, given the time constraints on this project, external auditing will not be sought at this time. This project has been reviewed extensively and approved by the dissertation committee before an oral defense. All of this will be done prior to any publication of this work. Taken together all of these steps help create a study that is high in trustworthiness and credibility as long as these efforts are pursued diligently over the course of the study.

Researcher Perspectives

The qualitative methodology requires that the researcher act as the instrument in the setting (Patton, 2002) being the one who collected the data, analyzed and drew the conclusions reported here. As such it is important to be aware of the assumptions and presuppositions with which the researcher enters the study and any biases positive or negative about the environment she may carry with her. To simplify writing about these perspectives that are highly personal, this section is addressed in the first person.

My biases about long-term care are important because they tend to be negative. I am a gerontologist with 16 years experience working with older adults. Prior to entering

academia, all of my experiences were in faith-based nonprofit organizations working with community-dwelling older adults (whose resources are often quite limited) to help them avoid long-term care placement by putting vital services in place to support them at home. I was a manager for services like these when I was not a direct service provider. I supervised programs including a focused program for mono- or bilingual Spanish-speaking older adults funded with Older Americans Act funds, and volunteer programs to place friendly visitors with isolated older adults to provide socialization. None of my professional gerontological experience is in long-term care. I admit to having a bias against traditional, medical model, long-term care by personal experience and much preferred to work in a setting supporting people who were able to remain safely in the community for as long as possible. When long-term placement became necessary, I (or the case managers under my supervision) would work to secure the needed resources often including Medicaid or planning a Medicaid spend-down with the family. From there we worked to find a placement most suited to the older adult's needs. This was often a frustrating search. The culture change movement started in earnest in 1996 and, locally, Piñon Management Inc began to transform the long-term care industry. It is a transformation I support.

My bias against traditional medical model long-term care facilities is also a personal one. In 1999 my grandmother died at the hands of a negligent long-term care facility. She had suffered a number of small strokes and a few larger ones in the months/years immediately following my grandfather's death. Over the time this was happening she was slowly robbed of her ability to speak and competently care for herself in her home. Caregivers were hired to help her, but she would fire them on days she could summon the language to do so, and try push them out the door on days she could not. She clearly did not

think she needed the help. My cousin who functioned as her primary caregiver and power of attorney did her best to keep her at home, but with her own children, family, work and school obligations she came to her wits' end after several years of caregiving.

My grandmother was placed in a huge facility; my estimate was that there were 50-60 people living on each of 3 or 4 units there. On one of my visits (in which I only told the staff that I was Ms. Chesser's granddaughter) the staff did not know who she was, or that she was unable to speak. I asked the charge nurse to change her, as she was filthy and in filthy clothing. She said "Ms. Chesser didn't tell us she was dirty." When they went to find her to clean her up, they located her by looking at her arm band, not knowing who she was. I took my grandmother for a walk once she was cleaned up; she made it clear she hated it there. I hugged her and told her I loved her. I left and insisted that my mother do what she could to get her moved. They moved her to another facility in the same town, owned by the same company. What we didn't know until later was that the parent company had just entered bankruptcy, had many staffing problems in all their facilities and many quality of care complaints as a result. In the town where my grandmother lived, all three of the facilities available were owned by this company. My cousin was unwilling to move her to another town and other family members didn't push the issue. My grandmother died at 97 years of age, generally healthy of body, but neglected by the long-term care facility. They had not given her sufficient fluids for many days and she was unable to ask; her kidneys failed.

I feel strongly that the long-term care industry as a whole is being humanized by the culture change movement. This is a process that is a long time coming. While I have done my best to set aside my biases in order to conduct this investigation, I feel optimistic that this

research will contribute to the development of humane care for older adults in the future. This gives me hope that other families can avoid this kind of loss.

Operationalization of Terms

Disruptive cultural impacts: these were identified by examining the scripts for incidences of disruption and plotted over time.

Stage of implementing Eden Alternative™: Identified by the arrangement of scripts into plots and examining them chronologically.

Measures

The primary sources of data for this investigation are transcripts of notes taken during non-participant observations over the course of approximately one year from June 2007 through June 2008 in two long-term care facilities. From these observations, themes of cultural and organizational change, its impacts and resolutions are identified. Using Barley's (1986) methodology, scripts, plots and the phases of restructuring are identified.

One of the "Ten Principles of the Eden Alternative™" (Thomas, 2003) is that decisions are made by those closest to resident care with knowledge of resident preferences. As a result, culture change should result in a flattened management structure that supports and informs the decisions made for resident care. Staff at both facilities was asked to complete a survey (See attached in Appendix A) developed by the researcher at the end of the data collection period that reflected on the changes in their roles and resident care as a result of *Edenizing* their facility. Their comments on this open-ended survey were then used as narrative data for the overall analysis.

The second source of data is the survey administered to staff and managers at the end of the observation period (see Appendix A). The analysis of these surveys is discussed in detail in chapter 4.

Taken together the data collected and the analysis result in an improved understanding of how culture change progressed at the individual facilities and the impact this had on satisfaction with organizational life. After individual facility analysis was complete, the facilities were compared to each other. This comparison leads to a better understanding of the process of change, how it proceeds in both similar and distinct ways in different facilities. In the end, how the facility restructures itself after the disruption involved in implementing the Eden Alternative™ is a result of organizational forces from staff, residents and family members.

Results

The purpose of this chapter is to present the results of the data analysis from this investigation. First, analysis for each facility will be explained and then the facilities will be compared by looking at the identified phases of structuring and key themes identified as part of each phase. Presenting the findings in this way is appropriate because it mirrors the analysis plan outlined in chapter 3 previously and Barley's (1984) and Black et al.'s (2004) methods upon which this work is based. Further, this discussion will be organized by addressing the research questions individually and consecutively.

Data Analysis Results for East

The administrative structure at East was primarily medical model when they decided to implement the Eden Alternative™ beginning in July 2007. The Administrator 'ran' the building where all important decisions were approved by her; this is particularly true where resources were concerned. For example, any expenditure of money or licensing issue had to be addressed by her. All staff in the facility was under her supervision and she was under the supervision of management staff at Piñon Management Inc. She worked in close partnership with the Director of Nursing (DON), the next most senior administrator, who was responsible for the day-to-day medical care for the residents. Any change in status, emergencies, needed testing or other medical procedures were communicated to her so she knew from moment-to-moment the status of all the residents in the facility. All of the nursing staff, including CNA's, was under the supervision of the DON.

The Administrator and the DON oversaw the professional groupings or silos in the facility. Department heads included Social Services, Activities, Therapies (physical and occupational), Dietary, Medical Records, Facilities and Business Office which itself included a dedicated manager to handle the billing and Medicare paperwork for the Minimum Data Set in addition to the nursing staff. There was a team of doctors who worked with the facility accepting residents upon admission to oversee their care. These doctors did not keep offices at the facility but visited regularly. There was a Medical Director assigned by Piñon Management Inc. who oversaw all of the medical care in the facility. However, the doctors were not a daily presence in the facility except by phone and the nursing staff worked with them to make sure the residents' medical needs were met.

The nature of the professional silos at East meant that each professional group handled their own issues. For example, if someone wanted to plan an outing to the mountains, the activities director and her staff were responsible for planning this trip. If a resident needed to apply for Medicaid, the social services director was responsible for making sure the appropriate paperwork was completed. If something needed to be done that was the responsibility of someone who wasn't in the building at the time, it was generally added to a list of things they needed to address when they got in. For the most part tasks did not cross silo lines unless there was an emergency that needed quick action. Each staff role in the facility has an assigned Piñon Management Inc consultant and these groups, or clusters as they are known, meet to discuss their particular job function with others in the same position in the company's other facilities monthly. In addition, the consultants would periodically visit on-site as well.

As discussed briefly in Chapter 2, the medical model is supported by the regulations under which facilities are licensed. For example, in Colorado a special certificate is needed for a staff person to be able to feed a resident who needs feeding assistance. This certificate is usually obtained by CNA's. In order to help out in this capacity a number of people at East had discussed getting this certificate. To the researcher's knowledge none of the managers got these certificates during the observation period. Special certifications must also be obtained in order to give residents their medications. This certification is available to CNA's as an add-on to their initial credential.

At the time observations began the management team had a mixture of experience, background and longevity at East. The administrator had begun working there in 2005 (two years before the observation period) but other staff were newer to the facility, like the DON who had only been there a few months when observations began. Neither the administrator nor the DON had experience with the Eden Alternative™. Most of the facility staff had not worked for any length of time in an *Edenized* facility and the shift toward a social model of care appeared to be new to them. East had attempted *Edenization* at some point prior to the observation period but had not made much progress toward culture change. The facility had not been Eden Alternative ™ certified during that previous attempt. Most of what they had implemented, with the possible exception of their bathing program, had not lasted so it was the general feeling that they were starting over.

There is a history of innovation at this facility as they have developed a program for Korean elders in need of long-term care. To this end there were a few Korean residents, many of whom had very limited English proficiency living at East. The facility had made an effort not only to provide signage in Korean but also to provide staff, CNA's and an activities

assistant who could speak Korean. They taught English-speaking staff who were interested in learning them enough words in Korean to be able to communicate minimally with the residents. East provided culturally appropriate food choices on the menu and celebrated holidays important to the Korean culture. During the observation period the facility celebrated Korean Thanksgiving with traditional food, entertainment and staff dressed in traditional Korean garb for the day. Many of the residents included their family in the celebration. All residents who wished to be included in the celebration could be; however other menu options were available for those who were not interested.

Other examples of innovation at this facility include their frequent "Happy Hours" with music, dancing and games. These were usually held on Friday evenings and included non-alcoholic drinks for most of the residents who could not have alcohol due to complications with their medications. All facility residents and staff were included in these celebrations and fun was had by all. It was reported that a number of other facilities owned by Piñon Management sought to implement this in their own calendars based on its success at East.

As mentioned in the methodology, the goal of this research was observe staff and managers in the facility, how they interact and how decisions get made. At East these observations were conducted primarily in their morning department head meeting and 24-hour report. For most of the observation period these meetings were held every morning from 8:30am to between 9:00 and 9:30am. Toward the end of the observation period the morning department head meeting was changed significantly and that change will be discussed below as part of the results. Other meetings observed at East included pay day staff meetings, culture change meetings and CNA meetings. Meetings that were not a focus

84

of this research due to their scripted format include the quality assurance meeting, the program improvement committee meeting, Medicare meeting and others. Meetings were chosen based on the researcher's schedule and time limitations of 8 hours per week in the facility during the observation period. An emphasis was placed on attending meetings where the most information about facility governance would be included. Other meetings held at East were purposely not attended in order to protect resident confidentiality and these included community meetings, care conferences, weight and skin meetings and others.

Piñon Management Inc is certified to provide the Eden Associate™ training that consists of a three day class in which staff learn the Eden Alternative™ principles and more. Upon completion of this training the attendees receive their certification, which often puts them in a leadership role in their facilities. At the time the observations began, there was a handful of Eden Associates™ working at East at all levels of the organization and more were certified over the course of the year observations were conducted.

The day-to-day business of running the facility takes up most of the time in meetings the researcher observed, particularly in the morning management meeting. The daily agenda included important announcements, checking with each department for what is happening and any reporting that is mandatory as well. Social services reports every morning about any behavior issues or ongoing behavior monitoring that is being recorded. In 24-hour report all new doctor's orders are read aloud and in some cases discussed. Any resident with a change of condition, emergency or other medical issue is discussed here as well. During this part of the meeting, falls are covered and care plans adjusted to prevent future falls. Records of these meetings are kept in a central notebook and are completed by the person facilitating the meeting, usually the administrator or the DON.

These details were important for the researcher to observe, giving her the opportunity to note what people said about the daily functioning of the facility and how that was done. It is on this level that changes in structuration should have become visible as the Eden Alternative™ was implemented. However, as Eden Alternative™ was implemented at East culture change efforts were part of the discussion in morning management meeting. Here the managers shared what progress they had made, in what areas, and what the plans were for next steps. As will be reflected in the data, after they added a culture change consultant she was also an integral part of the management team and reported regularly on progress in morning meeting. Other meetings observed were important also for their reflection of the day-to-day operations of the facility; however, unless these were specific meetings about culture change discussing Eden Alternative™ took more of a back seat on the agenda.

What follows is a discussion of the data collected in observations at East from 6/25/07 through 8/20/08 organized by research question.

Research Question 1: What meaningful changes in structuration including: roles, rules, resources and use of power result from the implementation of a social technology in a long-term care facility?

Transcripts were analyzed in chronological order to identify stages of structuring and characteristic scripts of each stage as the Eden Alternative™ was implemented. At East three stages were identified from the data.

Stage 1: *Getting Started* which lasted from the beginning of data collection on June 25, 2007 until the management team and Eden Associates™ complete the Piñon Management Life Enhancement Matrix on September 27, 2007.

Stage 2: *Getting at Values* began with the completion of the above matrix on September 27, 2007 and lasted at least until the researcher stopped data collection on December 18, 2007 for health reasons.

Stage 3: *Now We Really Are Doing It* was underway when the researcher returned to data collection on February 28, 2008 and continued until data collection ended on August 20, 2008. Each stage is characterized by scripts and plots that emerged as a result of the analysis.

Stage 1: Getting Started

Direction Giving

Stage 1 of culture change structuration at East is characterized by **direction giving** interactions, primarily on the part of the administrator, but also on the part of other managers to some degree. This is not surprising given that the facility was transitioning from the medical model, which places all responsibility for daily operations on the administrators. This direction giving was a good indication of centralization in the facility, where the administrator took a lead role in approving expenditures, making sure problems were taken care of and by whom, and communicating expectations that included expectations around culture change. Throughout this stage changes involving painting, flooring, televisions, changes in food availability, remodeling, and the "It's Never Too Late" (1999) computer system all were approved by the administrator.

On 8/1, the "very first culture change meeting" was held with staff members who are Eden Associates™. Discussion at this meeting centered around decorating, flooring, furniture, new televisions, getting satellite television so that the cables could be removed

87

from the outside of the building and discussing the possibility of putting a full kitchen on one of the units with access to food all the time. This discussion took the form of providing updates and developing a sense of what areas the first culture change movements were being made.

In another sign of the administrator's leadership role, at the culture change meeting she seems to warn the present Eden Associates™ that from among their peers "there will be people who don't want to play. Those will be people who don't want to work here." She indicates that struggling with culture change is OK, but sabotage of the process is not. "There will be disciplining and consequences" for those who try to sabotage the process. This really leaves no doubt that culture change will happen.

Other managers were also in the position to give directions as well. During this meeting and with prompting by the administrator the social worker read off a list of the "barest [resident] rooms" and asked the group if they would volunteer to work with these residents to decorate their half of their room according to their interests. The hope was to set an example for others in the facility who might want to get involved or may be resistant. The group had a brief discussion about the need to volunteer and serve as a role model, and they decided on which room each person would work on before the next culture change meeting.

Decision making was also visible in other patterns of how the facility was run daily. Often the administrator would facilitate conversation on a plan of action for a resident for a few minutes; she would then bring the discussion to a close, confirming a plan and who was taking responsibility for implementing it. For example, on 8/14 the group discussed a resident who was eating and drinking things not on her doctor-ordered diet. The

administrator closed the discussion by asking the social worker to create a waiver for the resident to sign after speaking with her about the risks of eating and drinking these things. The social worker indicated she would follow though. This pattern of interaction was common at the morning management meeting, particularly in the first stage of structuration.

During the first stage the administrator volunteered the facility to pilot test a new survey method being considered by the State of Colorado Health Department to replace existing survey protocols. The focus of this survey method was person-centered care and was developed by a researcher from University of Colorado. The administrator tells the group that she volunteered them saying that she felt this pilot would fit their culture change goals. She acknowledges that she did this without talking with them and none present at the meeting seem to object to that.

While these decisions were being discussed, the administrator was beginning to recognize that these decisions were not hers alone any longer. There were several incidents where she starts off saying she likes something (paint, flooring, furniture) and corrects herself midsentence, saying, "we like it." It was unclear in the context of the discussion whether there had been a group discussion about this previously or not. While she corrects herself, it appeared this shift was one of which she must be mindful. It was also at this time when one of the department heads corrected the administrator's vocabulary during morning meeting, encouraging her to use the Eden™ appropriate word. For example, "incontinence garment" is preferable to "diaper." The administrator took the reminder in stride and even teases herself a little about it in the process.

Mutual Planning

A second common theme during observations during the first stage was **mutual planning**. Since all the people who attended morning management meeting were department heads, they had their specialized areas for which they were responsible. This became clear in their interactions at the table during these meetings. On 7/30 the medical records worker announced she had to be out of the building for something at her son's school, there followed a discussion about whether or not they would have enough department heads in the building so that she would be able to leave. In the end they decided to figure it out so that she could go.

When a resident falls in the facility the managers were required to review the resident's care plan and address the causes of the fall. Resolution to this could include a variety of things from making sure the resident is wearing shoes, to putting traction tape on the floor by their bed and more. Usually these discussions involved mutual planning about a resolution and then a decision about who was going to make sure it will happen. This usually meant that anyone at the table could ask questions about what happened, why the staff involved thought it happened, what solutions had been tried previously and what should be tried to prevent it from happening again. These discussions tended to cross silo lines, where the social worker would ask about medication problems, for example, and their questions were heeded. Similarly, shortly after the wander guard system was installed, a resident wearing a wander guard bracelet got out the door. Several minutes were spent talking about how that could have happened and what to do to prevent it. The administrator concluded the

discussion by saying she had a battery tester in the drawer of her desk and anyone could use it to test the bracelets.

When it came to admissions, the administrator and DON usually had final say on whether a potential resident was accepted for care or not, but frequently there was a lot of discussion during morning management meeting. This was particularly true for those residents who might be more of a challenge to care for. On these occasions the group would discuss the potential resident's illness(es), medication and expected acuity. The group would then decide if the resident would be able to get their needs met based on the balance between their needs and the other resident's needs. Often this discussion included consideration of the census as well. It appeared that if census was low the managers were more willing to take residents they might not normally consider. On 8/21 while having a discussion about a potential admit the dietary manager said "[we] can't afford to turn anyone away now, guys, we need the census." The decision about the individual under consideration at the time was tabled; however similar discussions were had over the course of the observation period.

Toward the end of the first phase East was assigned a culture change consultant. She was at the facility 20 hours per week helping them with their culture change journey. Once she arrived there was a period of planning and she got right to work. Her work during the first stage included introducing the staff to the general principles of Eden Alternative™. On 9/18 the facility held its second culture change meeting. During this meeting she asked the group to reflect on their mission using the "Stone Soup" metaphor where a community got together to make a soup that started with a stone. Once everyone adds what they have to the soup it turns out very tasty. The metaphor addressed what each person brings to the community and how it made the group better as a result. The group appeared to have some

91

difficulty with this as the conversation shifted back to a discussion of the physical changes in the building and how that had gone. Activities talked about how the new flat panel TV was a hit saying it will get turned on in the morning and all day people will be in there chatting…" it is the family corner now, just like you do at home." The social worker said that the "area is no longer a parking lot" and added that she went in there to do music therapy the previous week and those already in the room told her they were in the middle of a movie and didn't want to be disturbed. She said she would have to move music therapy to the dining room.

Stage 2: Getting at Values

   Mutual Planning

The next stage began on 9/27 with a morning meeting dedicated to the Piñon Management "Life Enhancement Matrix." This matrix asked the facility to self-rate its progress in a number of key care areas (see Figure 3 below with rankings and examples of standards for this ranking taken from this matrix). This meeting marked the beginning of a new stage in development because themes identified shifted more toward mutual planning and collaboration. Discussions began to focus more on values and beliefs about culture change. The group used the Matrix as a way to identify priorities for moving forward on culture change and there was much discussion about what these were. Those discussed were: ending overhead paging, person-centered end-of-life planning and others that may have been identified later. Decisions about how to rank East on the Matrix were accomplished through mutual planning. While there was a lot of discussion about these choices the group reaches consensus even though the discussion was quite lengthy. All involved appeared to support the direction they had chosen.

92

Piñon 's Principles of Excellence for East	Ranking: L= Launch, J=Journey, H=Horizon, Z=Creative Zone
"I" Care Plans	L (Residents asked about preferences and daily pleasures as care plan is developed
Medication Administration and Storage	? (work in progress)
Person-Centered End of Life	Below L(Residents and family asked about preferences for the dying process)
Enhanced Dining	J to H (Residents have choice and input on menu selections)
Personalized Bathing	H (Bathing is enhanced by providing supplies that residents prefer such as warm towels, aromatherapy and music)
Holistic Health and Wellness	H (Home offers resident, families and staff complementary therapies and wellness programs)
Satisfaction Surveys	L (My InnerView satisfaction surveys are conducted at least annually)
Commitment to Customer	H (Satisfaction survey trends, 75% or greater, indicate staff and families would recommend home to others.)
Real Life and Spontaneous Activities	Pre-L (Activity staff respond to resident requests for spontaneous activities)
Model of Care	L (Administrator promotes and supports culture change and may identify a culture change committee)
De-Institutionalized Atmosphere	Pre-L (Limited overhead paging and residents have choice in room and roommate)
Home Atmosphere	J (Resident has input in home and room décor)
Pets and Plants	H (Home has developed a living habitat with a variety of pets, residents have live plants in their rooms)

Community Meetings	L (Community meetings occur at least weekly)
Family Involvement	L (Families are involved in resident's care choices)
Community Integration	L (the outside community is invited to join in the life of the home, cultural diversity is celebrated)
IN2L	Pre-L (Tech teams created to integrate IN2L into resident's lives in each home)
Figure 3: Piñon Life Enhancement Matrix	

There were a few areas where the management felt they had made substantial progress, including dining, bathing, commitment to customer service and others (please see Figure 3). Aside from those areas, the management team felt that the facility was starting at square one or less in some cases. The culture change consultant tells the group that to apply for Eden Alternative™ certification, the facility has to demonstrate that they are at "launch" in all areas. During this stage mutual planning was a common theme where the staff and managers established culture change goals, behaviors and accomplishments.

On 10/2 the culture change consultant held a meeting of all CNA's to talk about culture change. The goal of this meeting was to "develop a sense of neighborhood." She told the group that they can choose who they like to work with (from among the residents) and their caseloads would be determined by the resident's level of acuity. She added that "there is a team leader picked by the group. This is a community for those who work here too." The group talked about various activities they could decide to do to encourage this sense of community, including a cultural potluck (people bringing their favorite food),

celebrating birthdays, recognizing each other for outstanding work or skill-building classes in topics like cooking. One CNA asked, "can we work on the break room? Maybe paint it, clean it up and put in baseboards?" The culture change consultant emphasized that "whatever we do the vote should come from us rather than department heads, which would be the old institutional way." The group decided by consensus when to meet again and the culture change consultant indicated she would talk with the administrator to see if they can get a budget to work with.

On the next day, 10/3 there was a culture change meeting including managers and staff who are Eden Associates™. Prior to convening the meeting there was a discussion about how schedules might change to fit resident needs. The administrator said, "for instance, if residents are sleeping later, staff would stagger their shifts, some come in at 7am and work 'til 3pm, others come in at 8 or 9am and work later in the afternoon." No decision is made when to implement this, but the group agreed it was an important goal.

The group discussed the Eden Alternative™ application and how the facility needed to have made progress on all the principles and a plan to work on what they had not achieved. "This includes cross-training like the activities coordinator training to prepare meals, spontaneous outings anyone can do, staff picking fun things to do weekly or monthly. The goal is to de-emphasize the role of prescription drugs. Is the schedule built around resident preferences or around the medication schedule?" The culture change consultant added that she already saw the changes in progress because she has heard people say, "Did you talk to the resident about that? Or "do you know what the resident wants?"

In some cases the administrator started to demonstrate a shift in her approach to direction giving, making the process more like mutual planning. On 10/12 during morning management meeting she asked "Anybody gotta run errands today?" A number of people in the group spoke up, saying what they needed, like printer ink for the MDS coordinator, pull up undergarments for one resident and things that the activities coordinator needed. The group decided to have the activities coordinator run all the errands needed, she got a list and money from the business office manager to do so.

Later in the stage, on 11/1 the group was talking about a resident who had developed problems with personal care that they didn't have previously. Rather than discuss a solution in morning meeting, they decide to include the CAN, asking about her observations of this resident before making any decisions about how to handle it. This is a shift because earlier in the first stage it was common for the management staff to have a discussion like this and for the end decision to be that someone, probably the DON or Assistant DON would talk with the CNA and tell them what intervention had been decided upon for the problem.

During this phase the management group decided to hold retreat about culture change. On 11/1 there was a lengthy discussion about how this should be done, what the goals would be, who should attend, where it should be held, how much time would be needed, how many people should go, etc. The group decided that it is very important to honor the commitment they had made to each other to make this happen even though it was feeling very difficult to do with the holidays coming and their state survey window opening. No final decisions were made that day; however, the nursing staff committed to figuring out who could go and who could cover the facility while others went. They also committed to discussing it further as soon as they knew more. In some ways the protracted discussion

96

about this retreat felt uncomfortable. The group was struggling to reach consensus on all the smaller decisions around making this happen at the same time they acknowledged the time for planning has gotten away from them. This took a lot of time, made the meeting run over time and seemed frustrating for some at the table. In the end the group planned the meeting together and all involved seemed to feel it was a good retreat.

Direction Giving

Even though there had been some shift in the nature of the directions given, **direction giving** was common in this stage as well. On 9/28 the administrator was preparing to take the week off and she told the group it was important to remember we don't have an "Asian-Pacific program, we have a Korean program." She reported that she had been getting calls looking for placements for a variety of older adults who were of other Asian-Pacific backgrounds that she felt would not be a good fit for their Korean community. She went on to remind the managers that the facility was very full and with no admissions coordinator it was important to admit people there was room for. She also took some time during this discussion to delegate tasks for making sure there was a celebration for CNA week including a cake and money for decorations.

Later in the stage, on 11/1 the administrator mentioned that "the door alarm has been heard to go off for 30 minutes or more at a time"; she indicated that this is not OK and said someone must be on the floor to handle this. This was particularly important because, "There is a resident with wander guard back in the facility." Later in the meeting, she reminded the group that room trays for those residents eating in their rooms needed to be delivered before the rest of the residents go to the dining room.

Direction giving was also common when talking with other managers about things to be done. During this stage a new facilities manager was hired and some of the direction giving observed during this period entailed giving him instructions about how to do his job. On 11/8 he announced he was buying supplies and needed to learn the account coding. The administrator told him to "make sure to code them to the proper account even if there is not money there as the money can be moved around in the budget." The BOM added that she did not know who all the vendors were and she needed to have current information about what was purchased from them and other information. This seemed to give him enough direction as to how to handle his budget and it was not discussed further that morning.

Some meetings seemed more dominated by direction giving than others. On 11/7 the social worker and the assistant DON facilitated the payday staff meeting. These meetings were required by state regulation and there was material that must be covered in them a certain number of times per year. The social worker talked with the group about what behaviors needed to be logged in the behavior book and that "this needs to be part of our lives and we need to be better about it. That way I can review it in the morning and see if any problems have happened." Also during this meeting they discussed the different kinds of abuse seen in facilities like ACCC and how abuse is defined. The ADON said,

> "This includes financial abuse where stuff or money is taken; physical abuse, fighting
> among residents or abuse from a staff member. What do you do when they are
> fighting? You stop the fight, alert all around you to do their part to prevent fighting
> again. Verbal abuse is abuse verbally, yelling and screaming. Sexual abuse is
> unwanted sexual contact. You usually want to laugh off this kind of behavior but it
> has to be taken seriously."

Both the social worker and the assistant DON were talking loudly and even though they asked some questions there did not appear to space or time to answer them; the answers were covered as part of the presentation.

Unsought Validation

It is important to note that the researcher saw an increase in **unsought validation** in this stage and while it was not among the most common themes it appeared to have an important role in motivating people who were working through a challenging change. On 10/3 one of the charge nurses told the group assembled for morning meeting that she had begun going to other facilities and "spreading Eden™". She related that she told an aide at another facility that residents do not have to be forced into bathing, if the resident does not want a bath, she does not have to take one. Everyone around the table told her what a good job she had done and how impressed they were with her for doing that. Later on 10/11 the administrator started the morning meeting with an announcement that the new snack cart got used the night before. All at the table told the dietary manager that she had done a good job getting this up and running and how good it was that residents can have a late night snack, particularly those who need the snack to regulate their blood sugar. The next day on 10/12 the culture change consultant told the group they needed to "recognize [one of the staff] on Columbine for what she has done to decorate for Halloween. She did this even though they did not get any money for decorations and she has not been reimbursed yet." There was a brief discussion about what a nice job she had done, how good the decorations looked and that they needed to be sure and tell her. The same day the administrator shared that she had been able to work it out for a resident to use the IN2L (1999) computer system (she hopes) to email her daughter who lives in South Africa. However she said that she would use her

office computer if needed. She said "it'll be fun; I've never had a chance to do that with anyone." Again everyone around the table was encouraging and congratulated her on her effort. On 11/20 the day after the retreat for managers and Eden Associates™ the administrator started morning meeting off with "A big thank you to [the culture change consultant] for a fabulous day yesterday. There were three different mission statements drafted from three work groups." There was a community meeting scheduled for later that day to present these three mission statements to the residents. All around the table cheered for the culture change consultant and the effort she put into making the day nice but also productive.

Stage 3: Now we are really doing it

Stage 3 begins with the researcher's return from a 3 month break in data collection due to personal health problems. On the day data collection resumed, the administrator informed the group at morning management meeting that she had been told that East would convert one of its units to Medicare suites for short-term rehabilitation. This set aside 13 beds (10 of which they would hope to have full at any one time) in private rooms for this purpose in what she reported Piñon Management felt was a necessary financial decision. This change was initially discussed in 12/07 with a plan that included setting aside 6 rooms for short-term care. The facility had begun admitting Medicare rehabilitation residents but it was the researcher's impression it was not as many as 6 residents. Morning meeting on 3/20 was extended and there was a lot of discussion about how this would impact the facility. The administrator related that "I'm very unhappy about this. I've spent a lot of time thinking about...It's hard to process. I've been worried about it." They talked about some of the concerns they had about this change. The dietary coordinator said, "We don't have a dining

100

room to offer. They can eat in their room if they want. What about social services and activities for them? What special needs are they going to have?" They decided to take time for everyone else to think about it, as the administrator said she had the weekend to think about it, and they would start meeting weekly to plan. She added that it is likely this means they will be able to make some of the changes to the facility they have been wanting to; that there also has to be some benefit to the current residents of this change. She planned to send a letter out to the families soon. A plan had to be made regarding the residents to convert to long-term care. This stage was characterized by the planning necessary to implement this change and continue with the culture change plans as agreed to as well.

There are two other significant events in Stage 3. First was the completion of the Eden Alternative™ certification. The application was completed in 3/08 and the certification was awarded during a conference call interview on 5/5/08. This certification acknowledged that culture change had started in the facility and must be renewed every two years to ensure the facility's ongoing culture change efforts. The second critical event in this stage was that morning meetings transitioned from a conference room in the basement with just the managers to huddles upstairs in the neighborhoods including all staff. This transition was significant because it makes the direct care staff part of the overall planning in the facility and is a desired outcome as a facility engages in culture change.

In Stage 3 direction giving from the administrator increased over stage 2, and other themes also saw an increase including direction seeking, anticipatory questioning and mutual planning. It is also significant to note that direction giving from other managers decreased down to 7 instances observed from 20 in the previous stage.

Direction Giving

Much of the administrator's **direction giving** during this stage appeared to be related to the Medicare transition. For example during morning meeting on 4/8 the administrator told the group that they needed to "identify residents who might not be appropriate as transition is happening, who came here at a time when we were taking anyone. Now that we are full we need to transition them to other facilities. We need to make plans to find more appropriate placement for these residents."

There were other instances of direction giving from the administrator that were not related to the Medicare transition. On 5/5 the group excitedly talked about a trip the coming weekend for some of their residents to Las Vegas. The activities coordinator and the social worker were taking four residents and there was a lot of planning to do. The administrator told them to "be sure to call for early check-in and late check-out at the hotel" so the residents would have as much time as possible to rest before they must leave their rooms. Further she directed them to think about a plan for the luggage because last time she went to Las Vegas (with her elderly mother) it took an hour to get their bags. She appeared worried that the residents should not wait around that long.

On 5/16 there was a short exchange with the dietary manager that she should have the facilities manager attempt to fix a broken grill before they decided to replace it. Much of the administrator's direction giving was in this vein: taking care of things that needed immediate decisions. When it comes to the larger issues there is more mutual planning at this phase than there was in previous stages.

Once the morning meeting moved upstairs to the units with all staff there was a change in how the administrator or DON (in her absence) gave directions and interacted with some staff about some things. Generally these meetings started off with a question encouraging the staff to tell the managers what was happening on that unit today. For example during one of these meetings the administrator started off saying "Alright sugar, how are we doing?" The staff replied by giving her a brief synopsis of what was going on that day.

On 4/8 there were a number of instances of **anticipatory questions**. MDS asks the group, "are your care plans up to date? Is the family involved? Timing on care conferences may change, they [the residents] may get two while they are here." This means that they might have more care conferences in a shorter amount of time for residents who were in short-term rehabilitation. On the same day dietary asked the group, "How do we handle conflicts in the dining room between residents?" The group goes on to ask her "which residents? How long are they staying and what are their plans?" The group covers this question and decides together how to handle the residents fighting in the dining room.

On 6/3 talking with the staff from the unit that was transitioning to Medicare suites, the administrator told them about how the changing nature of the unit would make their job much more stressful, with higher resident turnover and a lot more things to keep track of for each resident including appointments. She told the group that if they have planned a Friday off they could go ahead and take it but that there would be no other Fridays off approved for awhile.

Mutual Planning

Mutual planning was also a common theme during this stage. As mentioned above, planning about the Medicare transition appeared to be mutual. All involved in the discussion on 3/20 where this was brought up as an eventuality expressed their concerns for how it would work. The dietary coordinator mentioned there was not a dining room for them and that they were unlikely to want to eat with the long-term care population who choke on their food and vomit. The activities coordinator asked what would happen to the TV room on that side of the building, reminding the group that it had become an important social center at the facility. The social worker said she liked being able to get some of the construction projects done like the community room. The administrator told the group the community room will get a full kitchen, tables, lots of storage and laundry will be put in down the hall. In the end they recognized all the planning could be done in one meeting and decide to meet weekly for a while to plan solely for this transition.

Since they had begun admitting more rehabilitation residents there was a lot of confusion about using their van, who had priority and what should be done about it. In morning meeting on 4/8 there was a discussion about how they needed to plan for appointments because the activities staff had been unable to use the van for outings and the driver was getting run ragged with appointments. They opted to put together a calendar placed in a central location so that everyone could be aware of the schedule.

Once the morning meetings were moved to the units and shortened to just a few minutes in length, mutual planning seemed to take the forefront. On 5/20 the administrator confirmed with the researcher that everything was different upon her arrival at the facility.

She went on to say that yesterday they found that the 1030am time for the first huddle worked well, but by 1100 am on the other neighborhood it is too late and the staff are getting the residents to lunch. They talked with the unit about what time would work and they will be starting 30 minutes earlier at 1000am on the first unit and then 1030 on the second. They would see if this works out and then settle on a time that worked well for everyone.

Direction seeking was also an important theme during this stage. During morning meeting on 3/20 the dietary manager told the group that she was "missing linens and wash cloths and will have to buy more, or we can go back to paper which is very expensive." She added that she had talked several times with the facilities manager and she gave up. In response to this the administrator told the managers to have all staff sweep the building for these items. There was a brief discussion about whether staff might be taking these things home. On the same day the MDS supervisor asked for help charting and filing staff TB test results. The BOM manager volunteered and said that at the same time they should get people who are no longer here off the payroll. This type of interaction was fairly common where one person would help out another; it was not clear from their job descriptions if this was an expectation or not. During morning huddle on the unit (after that transition) the DON asked the assembled nurses and CNA's "anything you ladies need?" One of the CNA's mentioned that they needed education on diarrhea management. The DON asks to talk to them later so she is sure about what they want.

See Table 2 below for frequencies of the codes reported here and Appendix C for table of all code frequencies for East.

Codes	Stage 1	Stage 2	Stage 3
Direction Giving	10	26	7
Mutual Planning	36	21	34
Unsought Validation	3	5	8
Anticipatory Questions	4	3	10
Table 2: Code Frequencies for East			

Research Question 2: What changes in social work roles will occur as the Eden Alternative™ is implemented?

Social work roles appeared to be consistent throughout the observation period. The job description for the Social Services Director indicated there were a number of key areas for which the social worker was responsible including administrative functions, personnel functions (if there are other staff in the department) and social service functions. This job description was also consistent with the observations of the social worker in her job during this period.

Social Services Functions

Most of the interaction involving the social worker at East centered on social services functions. One of the most common social services functions discussed during the observation period was behavior charting. The direct care staff was expected to document problem behaviors and these might include yelling, fighting, and exhibiting mental health problems such as trying to injure themselves or others. This behavior charting appeared to be somewhat problematic at East. During the observation period two of the staff payday meetings included a discussion instructing staff to chart behaviors with exhortations that this was required by regulation and must be done. However, it appeared it was not done very frequently as there would often be discussions about a resident's behaviors that were apparently not documented in the behavior chart.

Another important social service function included overseeing the admissions process. For much of the observation period there was no admissions coordinator and other people on the management team, most notably the administrator, the DON, the ADON and the social worker had to take care of admissions piecemeal. This resulted in some frustration because paperwork was not consistently being covered and other important items were not taken care of consistently upon admission. Once the admissions coordinator position was filled much of the discussion about admissions at morning management meeting consisted of advising her about important things that needed to be done or decisions made about who could or could not live at East. For example, several times over the course of observations the group was told they were not accepting "pendings." This means that they would no longer accept residents who had exhausted their financial resources but have not yet been

approved for Medicaid. The feeling was that this was too risky financially. The social worker was responsible for ensuring follow through on these issues.

Mental health issues were also important to attend to as part of the social services functions for the social worker. At East this included conducting evaluations, referring for mental health services, providing some limited counseling for families and residents and other related tasks. Several times over the course of the observation period the social worker reported that she was coordinating with a psychiatrist about potential diagnosis and/or medication needs. In one case when a resident appeared to be having a psychotic episode the social worker conducted 15 minute checks on this resident over the course of the day and made arrangements for this to be continued after she left the building for the day.

The social worker was frequently tasked with talking to a resident about problem behaviors. In one example the management team asked the social worker to talk with a male resident who did not clean himself up after an episode of incontinence. They wanted to learn why this was. The social worker also made arrangements for outside transportation to appointments and followed up on these things if there was a problem. She was often the manager in charge of a resident's transition to another setting whether that was home, assisted living or to stay with family. This included coordinating visiting nurses and therapies and transportation to get there.

While there were many other social services roles that were important to the day-to-day functioning of East, one of the most important was coordinating and attending care conferences. Each resident must have regular care conferences to which all caregivers, family members, doctors and the resident themselves were invited. At this conference all of

the resident's needs were evaluated and a determination was made whether the resident needed ongoing skilled nursing care and in what areas this was true. From this the MDS was updated, which justifies the resident's needs to CMS, which approves payment for the resident's care under Medicare or Medicaid. Making sure these are scheduled, announced and attended serves a very important function in any long-term care facility.

Administrative Roles

The social services director also had administrative duties which included supervising staff. At East there was an additional social worker who worked under the director's supervision in addition to the admissions coordinator. The other social worker in the department followed through on social services tasks at the request of the director. In one instance the social services assistant took a resident, who was thought to be rather difficult, home and got her settled on the day of her discharge. She was expected to make sure there was food in the house and that the resident's home was safe for her. The resident reported she was very happy with her transition and the group was complimentary of the worker.

The social worker's supervisory relationship with the admissions coordinator was less obvious during the observation period. The admission coordinator's tasks made her fairly autonomous in her job and once learned she did not appear to need a lot of direct input. This may have been because East hired an experienced admissions coordinator, but it may also have been a function of the job.

Other administrative duties assigned to the social worker included a number of reporting functions for regulatory compliance and charting of her work with each resident. There were many other tasks commonly performed by the social worker at East. She

frequently worked with the activities director to plan outings and often was one of the staff who went with the activities director to handle the outing when it happened. When East arranged a trip to Las Vegas for four residents the social worker went with the activities coordinator on this trip. Other local trips and activities in the facility were handled the same way.

The social worker also worked with the ADON to provide staff training. At East the ADON was tasked with staff development duties as well. During payday staff meetings the social worker often facilitated the group with the ADON. Once the ADON resigned, the social worker often took care of these meetings alone.

Research Question 3: How does a disruptive social technology impact long-term care facility structure and how does that disruption manifest?

As discussed in Chapter 2, structure results from morphogenesis and is created *in vivo* by the actors involved and the rules, resources, power and practices that are unique to each setting (Archer, 1996; Barley, 1984). Organizationally, culture change includes goals which move decisions for resident care as close to the resident as possible. In many organizations this means the direct caregivers (Certified Nursing Assistants, CNAs, for example) may be empowered to make more decisions for or with their residents. Often this necessitates flattening the organizational chart. Many organizations cross train or cross certify staff so that care can be more seamless for the resident. Changes at these levels would reflect changes in values and beliefs that are core to the organization. At East there were some disruptions in rules, resources, power and practices as culture change began; however, there was also a limit to how deep those changes went.

110

Rules

Over the course of the observation period, there did not appear to be significant changes in the rules, both discursive and practical (Giddens, 1991) governing the facility until the morning management meeting format changed, moving to the units where direct staff were included. Prior to that time, morning meetings followed a scripted agenda where specific information was covered and discussed including department announcements, updates and 24-hour report for all the important and relevant clinical changes since the previous meeting. Once the meetings were moved to huddles on the neighborhoods much of the information obtained in the morning stayed the same but who reported it and how changed. These huddles were conducted very quickly often while standing at the nurses' station or sitting in a room nearby on each neighborhood. Neighborhood staff and caregivers reported on resident status and requested needed care changes. For example on 6/19 in morning huddle a CNA told the group that one of her residents was choking that morning and she thought she needed a speech evaluation. The administrator stopped the group and told them how great it was that she made this request. Previously, when morning management was being held in the basement, the CNA would have documented her concerns in the record which then would have been read by the charge nurse and it could have been days before the request made it to the group who could do something about it. Even if the request made it to the morning meeting on a timely basis, it was not the CNA directly making the request.

There had been some discussion of increased flexibility in the activity schedule allowing for more spontaneous activities. It appeared some of this had started to happen and the best of example of that (while not terribly spontaneous because of the planning involved) was the trip to Las Vegas. The IN2L computer system was moved to a more convenient

location in a shared common room and everyone reported it was getting more use by residents and their families. The new TV was a hit and staff shared that the TV room had become a central gathering place for a number of residents.

Other rules remained unchanged during the observation period. For example the supervisory structure remained intact and to the researcher's knowledge self-staffing had yet to be implemented. There had been discussion about it. Job tasks remained essentially unchanged and appeared to stay in silo formations. As discussed above this was true for the social worker, but her position was typical of the others in the facility. Expectations about who facilitated what meetings also seemed to remain the same. Even though morning meeting had been moved to huddles on the neighborhoods the administrator or the DON continued to facilitate them. It appeared that during the observation period job descriptions were unchanged as well.

Practices

Because the rules governing behavior did not see much change until the latter part of the observation period, neither did the practices. As before, once morning meetings were moved to huddles on the neighborhoods practices began to change. This appears to have happened because the meeting format, location and attendance changed. The above example of the CNA requesting a speech evaluation on a resident under her care is also a good example of changed practices. Some of the same documentation needed to be completed in order to formally request the evaluation but the CNA could initiate it herself. The administrator and the DON demonstrated some changes in practices as well after the morning meeting was moved to the neighborhoods. Most notably they began to ask more anticipatory

questions inquiring about resident status and neighborhood life rather than listening to issues

and providing directions about how to handle the problems. Also during this transition,

fewer other managers attended these meetings, whether this was by design it is hard to tell.

But the social worker in particular was not in the huddles on the neighborhoods. A number

of times concerns were raised that she would need to address and the group was told she

would be checking in with them later.

Power

While there were some shifts in power as a result of some of the changes visible with

culture change, the firmer organizational structure had yet to change. That being the case,

the "real" power behind decisions had yet to change either. As mentioned previously the job

descriptions were unchanged during the observation period and as a result most of the power

shifts were accomplished on a more informal basis. There was sense that CNA's, for

example, were being "allowed" to make more decisions as their job descriptions did not

reflect the added decision making responsibility.

The organizational hierarchy did experience some flattening during the observation

period where some decisions started moving closer to the resident. This required the

administrator to assume less control over the decisions and for direct care staff to exercise

more control. Even though this process had begun just before the observation period ended,

as reported here some progress was being made.

Resources

There did appear to be a significant shift in available resources particularly intended

to facilitate the culture change process. These resources were put into place on all levels of

the organization. Physically the facility saw many decorative and physical changes during the observation period. Furniture was upgraded, new bed linens purchased, bathing oils provided, the facility painted, new equipment added like the snack cart for evening snacks and the flat screen TV that was so popular. In addition the facility hired a massage therapist to work with the residents and staff (although at the onset staff had to pay for the massage) and a manicurist frequently visited the facility to provide manicures and pedicures for the residents. Further the beauty shop was repaired and remodeled and haircuts and styling became available on site once again. Other construction changes included converting the former PT room into a community room with a full kitchen. New flooring was added in many places. Plans were made to improve the staff break room and the public bathrooms. Additionally, there appeared to be more resources available to staff to recognize their successful efforts, acknowledge their hard work and make the environment more pleasant for them as well.

Staff training and support for culture change were also made available. This includes assigning a culture change consultant to the facility for several months at 20 hours per week. She facilitated the culture change process, meeting with staff on all levels; teaching them about the changes necessary for culture change and helping them prepare their application for Eden Alternative™ certification. In addition a number of other staff from East attended Eden Associate™ training and were encouraged to attend the Colorado Culture Change Coalition trainings as offered as well.

Survey Results

The survey asked respondents questions about changes in their current job, involvement in planning Eden Alternative™ implementation, changes in roles, resources, decision making, conflict management, physical environment in addition to other topics and was administered at the end of the data collection period (see Appendix A attached) At East 18 people responded to the survey; 5 of these were CNA's, 2 were non-manager RN's and 11 were various managers including the DON, administrator, BOM, MDS, Facilities and others. The CNA's had been in their job much longer where the average length of employment for those who responded was 5.25 years (one CNA had been there 19 years). Managers, on the other hand had a much shorter length of employment with an average of 12.5 months employment (the longest serving manager had been at the facility for 4 years). The Social Services Director at East had just been hired at the time of the survey and had only been at the facility for 1.5 weeks (she had no long-term care experience).

When asked about changes in their jobs as a result of culture change, the CNA's did not answer consistently; one mentioned they have more input on resident care and another wrote about how the residents get more choice and they have flexible scheduling. Most of the CNA's felt involved in implementing the changes reflecting that they had more involvement in resident care. They did not, however, mention that they were involved in overall implementation of Eden Alternative™ at East. As far as resources are concerned the CAN's by and large did not report having access to additional resources; although one CNA reported "lots of it" in response to this question, but did not indicate specific resources. CNA's felt that there were some changes in resources available to residents, but none of the respondents indicated specifically what resources had been put in place for residents and their families. It appears to the researcher that the CNA's may have misunderstood this

question among others as the survey progressed. It is unclear if this is because of how the survey was written, vocabulary use or respondent fatigue. Only two of the five CNA's responding to the survey indicated that decision making in the facility had changed and now seemed to include the residents, family and staff more than previously. Other CNA's answering this question seemed to be confused responding "more like home" or "interior and social life." The CNA group listed a number of physical changes that had occurred in the building as a result of culture change, but generally could not detail what future changes were planned in the coming year. There is some contradiction between CNA's about how handling conflict and complaints has changed, one reports that "This is slow in coming—this change is going to take tine. It's good for the resident but not employees." However, two other CNA's felt that conflict and complaint resolution had improved because issues are handled right away. This trend is also reflected in the CNA's sense of collaboration and cooperation where several people leave these questions blank, or report improved communication.

The managers' responses on the survey are in contrast to the CNA's, they tended to write more in their responses and in general reported more involvement in and awareness of culture changes in progress at East. While nearly reported their job was essentially unchanged, nearly all also reported being very involved planning and implementing the culture change process. It appears they did not feel this planning and implementing was a substantial change in their job duties. Managers did not report changes in resources available to do their jobs, but did feel there were a lot more resources available to residents and these were related to changes in the physical environment. Most managers felt there had been no change in the ways in which conflict is handled. Those who saw a change in conflict

resolution felt that CNA's were more empowered, and that it was their role as managers to be more involved with resolving conflicts before they got out of hand. The answers were equally mixed for questions about collaboration; some felt there had not been much change others felt there had been a lot to make the environment more home-like where staff was more willing to help out. Finally, managers were much more able to outline what changes were planned in the next 6 months to year-and-a-half from additional changes in the physical environment to changes in work days and future events.

The fourth research question will be addressed by comparing both facilities observed. What follows is a discussion of the qualitative data from West, addressed in a manner similar to the above.

Data Analysis Results for West

The administrative structure at West was also primarily medical model and held the same positions, silos and supervisory structure as East with a couple of minor exceptions. First there was a department head for laundry and two social services staff attended morning meetings at West. The medical director was the same individual serving in that capacity for East however it appeared the medical staff was different. The medical staff functioned on the same model as the medical staff did at East.

West was one of the first long-term care facilities in Colorado to be Eden Alternative™ certified. However due to a series of unfortunate events and serious deficiencies on their state survey, the facility surrendered their certification voluntarily just a few months prior to the beginning of the observation period. It was generally felt that the home had regressed to the point where the *Edenization* process needed to begin again from

scratch. Prior to beginning observations at West all deficiencies with their state survey had been resolved. West was proud of its heritage as one of the first Eden Alternative™ facilities in the state and the staff felt an obligation to return the facility to its previous status. They had seen a lot of success with their feeding program in particular, with a reputation for good food available 24 hours a day, 7 days a week and much of the feeding program remained intact.

At the beginning of the observation period a new management team had taken over at West within the few months prior, with the exception of Medical Records who had been at the facility for approximately 5 years. The Administrator came from another Piñon Management Inc. facility and had a lot of experience successfully implementing the Eden Alternative™. The Director of Nursing (DON) had been a nursing consultant with Piñon Management Inc. before deciding to return to work in a facility; she too had a wealth of experience with the Eden Alternative™. Some of the department heads and other staff were Eden Associates™ but not all of them

As with East, observations were limited to meetings in which facility structure and governance were discussed, including morning management meeting, culture change meeting, payday staff meeting and others. The researcher also attended the falls meeting a number of times even though the content was related to resident care because there were often discussions related to staff and their role in supervising residents for their safety. The researcher stopped attending the culture change committee after a couple of meetings because residents held prominent roles in this group; sometimes they were the only ones in attendance. Based on the Human Subjects Review limitations agreed to as part of this research, it seemed better not to attend this meeting to avoid resident observation. West held

118

other meetings related to culture change that were not held at East. These include a leadership committee for managers, morale committee and a food committee and there may have been others. These were held on a variable schedule and the researcher had difficulty including them in her schedule for observations. What follows is a discussion of the data collected at West from 9/13/07 through 9/5/08. As above with the discussion of results from East, the discussion here is organized by research question.

Research Question 1: What meaningful changes in structuration including: role, rules, resources and use of power result from the implementation of a social technology in a long-term care facility?

As with East transcripts were arranged in chronological order for analysis and to identify the stages of structuration at this facility. At West two stages of structuration were identified.

Stage 1: *Re-beginning* was underway as observations began on September 13, 2007 and lasted until observations stopped on December 17, 2007 as result of the researcher's health.

Stage 2: *Moving Forward* was underway when observations resumed on March 11, 2008 and lasted until the end of observation on July 2, 2008. Each stage was characterized by scripts and plots that emerged as a result of the analysis.

Stage 1: Re-beginning

 Direction Giving

Stage 1 of culture change at West was primarily characterized by **direction giving** and this on the part of the administrator. During morning management meeting on 9/25 the

119

administrator passed around some papers that were stapled together and said "this is totally blank, pass it around and fix it." Later during the same meeting she asked the facilities manager to do a closet search of the building looking for items a resident had reported missing if they were not found in laundry. The nature of her direction giving appeared to be to make decisions quickly and she also demonstrated how situations are to be handled.

Another example of direction giving during this period dealt with reporting issues. On 10/9 in morning meeting the group discussed that a resident was missing some money but no report had been done yet. The administrator told the group that "we need to do an investigation and we will have to report it today." She went on to say that she was worried that she wasn't notified right away and that the proper reporting was not done. During morning management meeting on 10/16 medical records brought up concerns about a resident whose "behavior has escalated a lot this week." The administrator concurred and said "it sounds like something is up with the resident; she used to be more up." She asked the social worker to follow up. The DON told the group that she would check on the medications and work with the social workers to see what is up.

Mutual Planning

Mutual planning was a common theme at this stage of structuration for West. On 9/27 the second culture change meeting was held since the new administrator arrived. This meeting consisted of about half managers and half residents. The goal for this meeting was to "make life at West more enjoyable and make better care choices for the residents." During this meeting the Piñon Management Life Enhancement Matrix was completed which rated culture change progress (see Figure 4 below for the rankings).

Piñon 's Principles of Excellence For West	Ranking: L= Launch, J=Journey, H=Horizon, Z=Creative Zone
"I" Care Plans	Working on L (Residents asked about preferences and daily pleasures as care plan is developed
Medication Administration and Storage	Working on L
Person-Centered End of Life	Working on L(Residents and family asked about preferences for the dying process)
Enhanced Dining	H (Residents have 24 hour access to food with numerous menus options at meals daily)
Personalized Bathing	Working on L (Residents are interviewed about choice in time and type of bath)
Holistic Health and Wellness	L (Home supports promoting resident desires to use complementary therapies)
Satisfaction Surveys	H (Results of the satisfaction surveys drive strategic planning and quality improvement activities)
Commitment to Customer	L (Warm Welcome in place, telephone answered in helpful manner, staff extended same customer service as residents)
Real Life and Spontaneous Activities	L (Activity staff respond to resident requests for spontaneous activities)
Model of Care	L (Administrator promotes and supports culture change and may identify a culture change committee)
De-Institutionalized Atmosphere	L (Limited overhead paging and residents have choice in room and roommate)
Home Atmosphere	Pre-L(Living room furniture is provided for gathering)
Pets and Plants	J/Z(Home has developed a living habitat with a variety of pets, residents have live plants in their rooms)

Community Meetings	H(Community meetings occur 5-7 times weekly)
Family Involvement	L-J transition (Families are involved in resident's care choices and are becoming involved in meaningful quality of life activities)
Community Integration	L-J transition (the outside community is invited to join in the life of the home, cultural diversity is celebrated, staff expertise is shared with greater community)
IN2L	L-J transition (Tech teams created to integrate IN2L into resident's lives in each home, monthly meetings to monitor computer's usage)
Figure 4: Piñon Life Enhancement Matrix	

After completing the Matrix, the group discussed possible priorities from among the

areas listed. The administrator suggested that one goal could be to have the residents self-

administer their medications; they could be kept in a locked cabinet in their room and if they

needed help the nurse could have access to the medications as well. The administrator

recommended the group work on person-centered end-of-life care. She shared her fears

about dying alone and in pain as a way to discuss this area; however the group did not spend

much time on the topic. The final two priorities identified for the time being were real life

and spontaneous activity and commitment to customer service. As they were concluding the

meeting the group chose one area to focus on for the next meeting.

During this stage two focus groups were held by a Piñon Management culture change

consultant. One of these groups was for CNA's and the other was for the management team.

There was also a focus group held with residents that the researcher did not attend. Mutual

planning was the basis of these focus groups where the discussion centered around how to make the facility home for the people who live there at the same time the CNA's develop more voice in care decisions. The consultant set the tone of the meeting, saying "Decisions you make still have to be talked about with administration, but it is not the same as asking permission. Administration exists to make things happen." From this beginning, the group spent the afternoon talking about what home meant to them and how they could make that happen for the residents. They talked about planning decorating parties to help residents personalize their rooms and the facility in general. They planned for each staff person to do a spontaneous activity with residents weekly and the administrator told the group the keys to the facility van would be available even on the weekends. Each of those in the group talked about something they enjoyed doing on their own time that they could share with the residents such as gardening, knitting or playing card games. As the group ended there was sense of excitement for what their jobs could become that created an infectious energy even for the researcher.

On 11/28 a focus group was held with the management team and the culture change consultant mentioned above. Mutual planning was also the theme of discussion for this group. The DON talked about how it was difficult to think about culture change when they were so busy trying to get caught up. The administrator reminded them that "it should be part of what we are doing as we catch up." The group discussed the possibility of having more huddles to ease communication as long as they committed to actually listening to the needs that were surfaced there. Further, they needed to look at the administrator as a facilitator who "rather than say no [the administrator] will ask 'how can we make this happen?'" They were aware they needed to move toward working in teams based on the

neighborhoods and less in silos; this would lead to more trust and collaboration that would, according to the administrator, "create trust and joy for all who live and work here." The idea was not to be negative with each other but rather, be proactive.

Other Direction Giving

Other managers were in the position to give directions as well. On 10/2 during morning meeting the medical records coordinator calls the group's attention to a number of incomplete forms and said that it must be completed. She then passed the forms around for everyone's signature. On 10/16 the DON, who was orienting a new nurse started the morning meeting by telling her the order in which things were covered and the forms that needed to be completed. She related to the new nurse and the rest of the group that it needed to be done quite differently from how it has been done and it needed to be taken to the neighborhood for signature as well. Also on 10/16 there was a lengthy discussion about a resident who exited the building. Apparently a family member of another resident told one of the social workers that she had left. She fell in the parking lot, requiring a trip to the emergency room and stitches in her face. The group was concerned that she was not missed for quite some time even though the social worker had been alerted that she had left the building. The DON tells the social worker that she would have gone to check on the resident if it had been reported to her that she had gone outside. The DON further instructs the social worker to begin the assessment for the wander guard system.

Stage 2: Moving Forward

The second stage of structuration began on 3/11 after the researcher returned to observations and lasted until observations ended on 7/2. This stage was characterized by

mutual planning, direction giving from primarily other managers as well as the administrator and anticipatory questioning.

Mutual Planning

Mutual planning was evident in a lengthy discussion on 4/16 about a potential admission. The DON asked the group to talk about this potential resident because he represented numerous challenges they might not normally consider; however, census was low and they needed the residents. The DON told the group that her "clinical judgment would say 'acute rehab' rather than our facility, but I wanted to bring this to the team for a decision based on census." Many of the managers got involved in the discussion to look at all sides of the issue and made a plan that made sense for this facility. One of the social workers indicated that she thought it is a bigger risk than they were able to deal with at the time. The admissions coordinator asked "what if low census means you don't get paid for your full-time job?" The other social worker said her brother presents some of the issues as this man and she would not want to work in a facility taking care of him. They talk about the possibility of having him sign a behavior contract, but the social worker said that the "resident has the right to refuse things. He can break the contract he signs." The DON concludes, "That's a solid maybe?" They move on with the morning meeting agenda without a decision about this potential admission.

On 4/29 the admissions coordinator brought an issue to morning meeting where she had gotten a fax from a hospital threatening to send a resident somewhere else upon discharge (even though they went to the hospital from West) because the phone was not being answered. She went on to say there were now two case managers at this particular

hospital who "have the perception that the phone is not getting answered and that that they have trouble with this facility." The hospital was finally able to get someone's attention by sending over a fax. The managers talked about this and related how often when they call on the weekend the phone will not be answered or there are a lot of messages on the voice mail on Monday morning. The group planned to retrain the weekend staff on how to forward calls to the cordless phone and discuss with them the importance of answering the phone.

On 5/6 the managers discussed the worrisome behavior of one of the residents who was taking outside medications she brought to the facility with her. They were concerned there was a risk these medications could interfere or interact with the medications she was taking upon prescription at the facility. The managers had the sense that "she's a character" and that, as the administrator said "we are causing her more stress, we have not significantly improved her functioning." The activities coordinator went on to say that "we aren't going to change her, we have to realize that. We need to plan with the family and give them the education they need to support her." The group talked about what would work the best in order to do that and concluded that the activities coordinator should do a home visit and the social worker should call a family meeting as soon as possible.

The facility was undergoing considerable remodeling and rehabilitation during the observation period. On 6/16 the medical records coordinator reported at morning meeting that one resident was upset that her room was getting painted that day because she had nowhere else to go. The group discussed options for her including having her hang out in the activities office. That option however, would not work for the whole day. In the end the facilities coordinator left the room and came back saying he had put a stop to the painting and would not paint her room until they had a better plan worked out for her.

126

Anticipatory Questioning

While direction giving by both the administrator and the other managers was relatively common in stage 2, and took the same form as it had in the previous stage, there is a quite noticeable increase in **anticipatory questioning** particularly on the part of the administrator. These questions appeared to be intended to make the other managers think about what she wanted them to do without actually telling them what to do. On 4/29 during morning meeting the admissions coordinator announced that a resident had reached their 15th day at the facility, thus they need to be recertified. The administrator asked, "Do we need to do a financial questionnaire?" Together the group decided to have the admissions coordinator trigger the next step and to do so on two other residents who would have their 15th day that week. On the same day, the managers were discussing a resident with pneumonia. The family was apparently unhappy and the administrator asked the nursing staff to give her a lot more detail on what they were doing for this person. She went on to ask a number of key questions. She wondered if maybe he had had another stroke and might possibly be ready for hospice. The administrator also asked if his swallowing had deteriorated, thus causing the pneumonia. The group agreed to a plan to investigating these concerns.

Often these anticipatory questions were asked in an attempt to understand what a resident needed and how to meet those needs. On 6/2 during the falls meeting the managers were discussing a resident who had fallen a number of times. There had been a month of improvements and suddenly she was falling more. The administrator pointed out that they needed to ask the staff if she has gotten worse generally but also wondered if she had shoes on. Further they were concerned that since she falls asleep in her wheelchair she could fall

forward and pull the wheelchair over on herself, risking serious injury. The administrator

wondered if "we should help her lie down" or start her on vitamin B. They opted to gather

more information about the fall she had in order to know how to intervene to prevent another

one.

Staff recognition appeared to be a very important part of including staff in their

customer service goals for culture change. On 6/13 the administrator asked the group if they

knew it was CNA week and "should we do something for the CNA's?" The group wondered

what day that would be and talked at length about what day would work and what the

recognition should be. The admissions coordinator told the group that Tuesday would be bad

because "we are making tie dye shirts during the day having residents make their own

transfers for the two neighborhoods. The administrator asks, "Should we have [the CNA's]

make their own shirt with transfer and tie dye? Then we could order a sub sandwich at shift

change to celebrate." The group seemed to like this idea and the admissions coordinator said

she was getting the shirts that day and would get enough to include the CNA's. See Table

below for frequencies of the codes reported here and Appendix D for table of all code

frequencies for West.

Codes	Stage 1	Stage 2
Direction Giving	47	36
Mutual Planning	43	44
Other Direction Giving	20	37
Anticipatory Questioning	3	29

Table 3: Code Frequencies for West

Research Question 2: What changes in social work roles occur as the Eden Alternative™ is implemented?

As with East, social work roles appeared consistent throughout the observation period. When the researcher requested copies of the job descriptions for West she was told the building had been functioning without job descriptions. To her knowledge none were implemented during the observation period. However, many of the social services functions observed during data collection were very similar to the social services functions observed at East, so the data will be organized in the same way it was above for East.

There were two social workers at West during the observation period. At some point during the pause in data collection between December 2007 and March 2008, one of the social workers left West and another was hired. Also at the end of the data collection on 6/23 one

of the social workers announced that she had been promoted to social services director. At West each social worker was assigned to a neighborhood however they would help each other out if one was out of the building on vacation or at training.

Social Services Functions

Each social worker was responsible for tracking behavior charting for residents on the neighborhood to which they were assigned. At West behaviors were recorded separately from the resident medical record in a notebook that each social worker reviewed in the morning prior to or during the morning management meeting. If behaviors had been recorded in the previous 24 hours they were discussed in the morning meeting. If an investigation needed to be done as a result of the behavior, the social workers were responsible for conducting it. Usually this included talking to all involved parties to determine if the authorities such as the Department of Human Services or local police needed to become involved. If outside authorities needed to be involved it was the social worker's job to notify the appropriate party.

Similar to tracking behavior problems, the social workers were also responsible for collecting and handling complaints and incident reports at West. Complaints included resident and family member complaints about customer service in addition to staff complaints about the work environment. Common complaints from residents and family members included stolen items or money, missed medications or other problems with care, and complaints about other residents. These were documented on "complaint forms" available in the social work office and each was addressed individually. Once the complaint was addressed the social worker signed the form and filed it. Complaints or concerns were

130

also brought up at community meetings or resident council meetings. These were noted by (or for if one of them was not present) the social worker and dealt with in the same way. Compliments were handled in much the same way and the staff involved in the compliment were usually recognized in some fashion.

The social workers at West were also responsible for coordinating care conferences with the family and the other staff at the facility. Because this meeting determined the resident's ongoing needs for skilled nursing care and what services would be implemented to meet those needs, they were crucial. Care conferences were announced each morning at morning meeting and all departments had input into determining the current status of each resident. Even if family members could only attend by phone, they were encouraged to do so, so that they were aware of any care changes for their family member. When new services or equipment was needed, the social worker was also responsible for obtaining signed consent to implement it where one was required.

Most residents were admitted from home or the hospital with services in place. Often those services were quite extensive. Other times the resident was to be discharged with services at home in order to assure their safe transition. The social worker was responsible for coordinating with outside service providers to ensure successful transition to life outside the facility. This became more important as West, too, shifted some of their beds to Medicare rehabilitation bed. The people in need of short-term rehabilitation required much more care for the transition home.

Administrative Functions

Administrative functions for the social workers at West were less clear than they were for the social workers at East due to the lack of job descriptions. The social workers at West may have had similar responsibilities for supervision of staff but the researcher could not determine that just from the observations.

The social workers often helped the activities staff with offsite activities if needed. For example, when a group of residents attended a Colorado Rockies baseball game one of the social workers went with the staff to help with the residents. All staff at the facility was encouraged numerous times to participate in spontaneous activities with the residents. The researcher was unable to determine the extent to which social workers were involved in this.

Research Question 3: How does a disruptive social technology impact long-term care facility structure and how does that disruption manifest?

Rules

The most significant example of a change in rules at West was the change in the administrator's behavior over the course of the observation period. As discussed above, early in the observation period she tended to give directions in answer to questions or in anticipation of needs in the facility. As the observation period progressed this directive stance shifted to where she tended to ask questions to make the managers and staff around her think about what was needed in a given situation. Thus, by the end of observations, there was very little about which she would issue a direct instruction.

This change in the administrator's behavior necessitated a subtle change in the rules for the other managers as well. They had to become able to answer the questions and guide themselves more independently. As a result, there were occasional indications in the transcripts that they were doing so. This change was small and did not amount to an identifiable theme in the data, but had the observation period been longer there may have been more to see.

West was developing strong self-identified neighborhoods with assigned staff and managers. One example of emerging neighborhood identity was a "nacho sale" fund raiser held on Golden Age at West on 3/11 for extra money for the neighborhood. Additionally the CNA's had selected leads on each shift. From the researcher's perspective it was unclear if West had begun self-staffing where schedules were more flexible for the care staff, but it had been discussed.

As mentioned previously West functioned without job descriptions; however, by appearances, the supervisory structure resembled that at East and for the most part it appeared unchanged during the observation period. Job tasks, even those that had been assigned to neighborhoods, remained in the silo structure typical of medical model long-term care facilities. One indication this might be changing came at the end of the observation period on 6/16 where the group was discussing a weekend interview for a new administrator. While some in the group liked him, the admissions coordinator told them she was concerned that he was not familiarized with Eden Alternative™. The DON followed that up with her concerns that he had done sales for a lot of his career and had not been a nursing home director for long. The administrator replied that this may not be as important as they think because with Piñon Management's approval they would be shifting the role of the

administrator "to bottom up" and "managers will not be totally in charge." While this change did not happen before the end of the observation period it was anticipated soon if the facility continued to make progress.

Practices

As rules began subtly shifting over the course of observations, so did practices. These changes complemented the changes in rules. When the administrator changed her approach to guiding the facility on a day-to-day basis, she began to relinquish more control to the other managers and staff. As the managers and staff began to take more ownership of guiding the facility day-to-day practices and behaviors they engaged in changed as well. Managers began to ask more anticipatory questions much as the administrator had demonstrated to them. A good example of this was the extended discussion cited above that the DON had with the managers on 4/16 about whether the facility should accept a resident they normally would not, due to low census. Even though the examples of this were not pervasive enough to develop a theme in the latter stage of structuration, the movement is there. During the manager's focus group on 11/28 the facilitator talked about how managers "do unto the staff as the staff does unto the residents." This implied that if practices change and managers and staff felt more empowered and saw how this was done, it was more likely their practices with the residents would also be more empowering. Since this researcher did not observe interactions with residents it is difficult to know if this change had come full circle. It is reasonable to expect that it might.

Power

Hand in hand with rules and practices, power at West had also begun to shift. This

shift also reflected the changes noted with rules and practices in that the administrator began

to move power to the other managers and staff in anticipation of the shift in manager's

position in the organization. Even as this was happening there were clearly some things

about which the administrator would give very clear instruction. On 6/2 the administrator

was called out of morning meeting to take a call. When she returned to the room she

interrupted the interaction to tell the group that a family member had called the Piñon

Management office to complain that her family member had not had a shower in a week

because there was no hot water in the facility. The administrator indicated she had to find

out if this was true and why and call back with a report by noon that day. The group

discussed that the hot water had been out for a couple of days and some baths were missed

but they thought they were caught up. The administrator told the nursing manager to figure

out how far behind they were on baths and see if they needed to schedule someone to come

in just for baths. When the CNA's from the neighborhood were asked about baths and

whether they were caught up the answers contradicted each other. The administrator also

talked to the facilities coordinator about how important it was to get the water heater

working. He agreed, saying that he thinks the new environmental equipment that had been

added was causing the problem. After morning meeting adjourned the administrator had a

brief discussion with the nursing manager indicating that she was having a "hard time that

your staff are not letting you know they are behind on baths." She told her to document

education about this problem, meaning she was to talk with them, tell them how to handle

this in the future and document that it had been done. The nursing manager told the

administrator she thought the problem had been taken care of but that regardless; she would document the education piece as requested.

Power was subtly shifting to the other managers and staff in similar ways that rules and practices were shifting as well. On 6/4 the group was talking about a resident who wanted to leave before she was medically ready. She had an active fracture that limited her mobility and she could not return to living independently yet. Someone in the group said that she wanted to leave because she was worried her assisted living facility would not hold her room and she would have to move or stay in long-term care indefinitely. As the discussion progressed the assembled managers in morning meeting asked the social worker involved if she had done a number of things that might have eased the resident's worry including speaking with the case manager at the assisted living facility to see if the resident's worries were justified and speaking with the resident about her physical limitations and the risk she would be taking if she left the facility against medical advice. While this discussion appeared to make the social worker a little uncomfortable, she agreed those were things that needed to be done.

Resources

At West there were also significant changes in resources to support the culture change process. Physically the facilities were being painted and remodeled. In fact West commissioned an artist to do murals on central walls in each of the neighborhoods and in the dining room. Other changes included some remodeling, painting and flooring changes. A chart room was developed on one neighborhood, giving the staff a quiet place to write their notes with a locking door to keep charts safe and confidential. The nurses' stations had been

136

remodeled previously and looked more like a work area with a desk and comfortable chairs that was open to the rest of the neighborhood.

There was a plethora of staff training and development available as well. During the observation period at least 8 staff became Eden Associates™. Further, the social workers and other staff often reported that they were attending training in things like GLBT (gay, lesbian, bisexual and transgender) issues or horticulture. Staff was also often encouraged to attend the Colorado Culture Change Coalition meetings that also included a lot of training. Also, as with East, West managers were each part of a cluster in Piñon Management that was organized by job task. There was a housekeeping cluster, facilities' cluster, administrators' cluster, etc. Part of the quarterly meetings for each cluster appears to have been training. Funds were either set aside or earned in fund raisers for employee recognition for jobs well done, compliments from residents or their families, birthdays and other occasions.

Survey Results

The survey asked respondents questions about changes in their current job, involvement in planning Eden Alternative™ implementation, changes in roles, resources, decision making, conflict management, physical environment in addition to other topics and was administered at the end of the data collection period (see Appendix A attached) At East 18 people responded to the survey; 5 of these were CNA's, 2 were non-manager RN's and 11 were various managers including the DON, administrator, BOM, MDS, Facilities and others. The CNA's had been in their job much longer where the average length of employment for those who responded was 5.25 years (one CNA had been there 19 years). Managers, on the other hand had a much shorter length of employment with an average of 12.5 months

137

employment (the longest serving manager had been at the facility for 4 years). The Social Services Director at East had just been hired at the time of the survey and had only been at the facility for 1.5 weeks (she had no long-term care experience).

When asked about changes in their jobs as a result of culture change, the CNA's did not answer consistently; one mentioned they have more input on resident care and another wrote about how the residents get more choice and they have flexible scheduling. Most of the CNA's felt involved in implementing the changes reflecting that they had more involvement in resident care. They did not, however, mention that they were involved in overall implementation of Eden Alternative™ at East. As far as resources are concerned the CAN's by and large did not report having access to additional resources; although one CNA reported "lots of it" in response to this question, but did not indicate specific resources. CNA's felt that there were some changes in resources available to residents, but none of the respondents indicated specifically what resources had been put in place for residents and their families. It appears to the researcher that the CNA's may have misunderstood this question among others as the survey progressed. It is unclear if this is because of how the survey was written, vocabulary use or respondent fatigue. Only two of the five CNA's responding to the survey indicated that decision making in the facility had changed and now seemed to include the residents, family and staff more than previously. Other CNA's answering this question seemed to be confused responding "more like home" or "interior and social life." The CNA group listed a number of physical changes that had occurred in the building as a result of culture change, but generally could not detail what future changes were planned in the coming year. There is some contradiction between CNA's about how handling conflict and complaints has changed, one reports that "This is slow in coming—this

change is going to take tine. It's good for the resident but not employees." However, two other CNA's felt that conflict and complaint resolution had improved because issues are handled right away. This trend is also reflected in the CNA's sense of collaboration and cooperation where several people leave these questions blank, or report improved communication.

The managers' responses on the survey are in contrast to the CNA's, they tended to write more in their responses and in general reported more involvement in and awareness of culture changes in progress at East. While nearly reported their job was essentially unchanged, nearly all also reported being very involved planning and implementing the culture change process. It appears they did not feel this planning and implementing was a substantial change in their job duties. Managers did not report changes in resources available to do their jobs, but did feel there were a lot more resources available to residents and these were related to changes in the physical environment. Most managers felt there had been no change in the ways in which conflict is handled. Those who saw a change in conflict resolution felt that CNA's were more empowered, and that it was their role as managers to be more involved with resolving conflicts before they got out of hand. The answers were equally mixed for questions about collaboration; some felt there had not been much change others felt there had been a lot to make the environment more home-like where staff was more willing to help out. Finally, managers were much more able to outline what changes were planned in the next 6 months to year-and-a-half from additional changes in the physical environment to changes in work days and future events.

Even though the facilities were very different from each other and were changing in very different ways, those changes were happening and they were visible to the researcher

during her observations. Please see Table 2 for a summary of the observations at both long-term care facilities and the patterns of interaction for each stage. The meaning of those changes will be discussed in detail in Chapter 5. What follows is a discussion of the fourth research question and the methodological changes the researcher made in order to answer it.

Table 4: Summary of Paskind's Observations at Two Long-term Care Facilities and Patterns of Interaction For Each Stage adapted from Black et al., (2004)			
East			
	Stage 1: Getting Started	Stage 2: Getting at Values	Stage 3: Now We are Really Doing It
Staffing change	Culture Change Consultant added 9/4 for 20 hours per week		
Experience with Eden Alternative™	A few staff were already or are trained as Eden Associates at the onset of culture change. Culture change consultant very experienced with Eden Alternative™		
Scripts	Direction Giving Mutual Planning	Mutual Planning Direction Giving Unsought Validation	Direction Giving Anticipatory Questioning Mutual Planning
Pattern of Interaction	Direction Giving	Mutual Planning	Direction Giving
West			
	Stage 1: Re-beginning	Stage 2: Moving Forward	
Staffing Change	All managers are new to facility within a few months of re-beginning culture change.	New social worker hired	
Experience with Eden Alternative™	Administrator and Director of Nursing very experienced		
Scripts	Direction Giving Mutual Planning Other Direction Giving	Mutual Planning Anticipatory Questioning	
Pattern of Interaction	Direction Giving	Anticipatory Questioning	

Research Question 4: Will either Barley's (1986) sequential model of the structuration process or Black et al.'s (2004) model recursion analysis explain the disruptive cultural impacts of the same social technology in different long-term care facilities?

    Barley's (1986) Model

Once the stages of structuration were identified the researcher compared the patterns and frequency of plots to both the models suggested by Barley (1986) and Black et al. (2004). It had been the original intent to use Barley's (1986) model that reflects compounding influences of institutional and action pressures toward culture change once the new technology is introduced in the setting. The researcher felt this model was a poor fit for the data in this case for a number of reasons. First and foremost, Barley (1986) was able to observe what he felt was a complete or nearly complete cycle of re-structuration after the CAT scan technology was introduced in the two settings he observed. The model accounted for enacted behaviors that Barley (1986) witnessed and how they changed over time. As a result he was able to see the compounding influences mentioned above and their resolution. The current research does not have that advantage. The researcher has identified scripts for analysis but they were tied to incomplete incorporation of cultural behaviors; incomplete because they were in the process of being enacted but had not been finished. The researcher started to see signs of re-structuring but it seems clear in analyzing the data that this cycle was just beginning. Much of the significant changes she witnessed were in the spring and early summer of 2008, at the end of the observation period. Some of the influences of institutional and action pressures were beginning to be visible.

If Barley's (1986) model were to be applied to one behavior at a time from among the myriad of behaviors visible in ongoing culture change it could successfully model that one behavior. For example; the Barley (1986)model could demonstrate changes in resident decisions about when to eat. This would be an appropriate behavior to model because Eden Alternative™ seeks to change the way residents eat to resemble what they would do in their own home. This would allow them to eat, when they are hungry, a full meal or just a snack at any time of day. Referring to Figure 5 below, Barley's (1986) model has been adapted to fit this scenario; the changes are highlighted in yellow.

Realm of Action: Resident Eating Choices

Effects of eating choices on structure

Scripts T1

Scripts T2

Scripts T3

Institutional constraints on action

T1

T2

T3

Exogenous or Strategic Change

Exogenous or Strategic Change

Exogenous or Strategic Change

Institutional Realm: any pressure not to change eating behaviors

Figure 5: The "Social Organization" taken from Barley (1986)

The "realm of action" would consist of the resident's changing behaviors over time around eating and when they would choose to eat. The "institutional realm" represents any pressure not to change eating behaviors and choices, from peers, from the facility or others. Over time the cumulative impacts of the changed eating behaviors, as seen in changing and compounding scripts and pressures not to change eating behaviors also seen in the scripts, would result new structures and expectations around eating.

Application of Barley's (1986) model in this way would require modeling each behavior seen in the course of observations. This process is neither practical nor meaningful. The time and energy required to diagram behaviors in that way would be immense. The outcome would be questionable because the idea is to look at the changes in all behaviors over time and as a result of institutional constraints. It is not safe to assume that an analysis where each individual behavior is analyzed and then summed with all behaviors would offer the same result as a model which modeled behaviors together.

Black et al.'s (2004) Model

Next, the researcher compared the trends she saw in the current data to Black et al.'s (2004) analysis that took Barley's (1986) data and specifically looked at the recursion between activities and accumulations by using a dynamic modeling process to develop a grounded theory (see Figure 6 below). Black et al. (2004) had been able to successfully model interactions that Barley (1986) witnessed and simulate data for a full nine months based on that. The question then became whether or not Black et al.'s (2004) model was a better fit for the trends in the current data. The researcher concluded that Black et al.'s

144

(2004) model would indeed be a good start to modeling the behaviors she saw at East and West; however the model is not sufficient to do so for a number of different reasons.

What Figure 6 demonstrates is a hypothetical analysis of social workers' operating knowledge and learning balanced against the administrators' knowledge and learning of the new technology, Eden Alternative™. As Black et al. (2004) has earlier demonstrated, a balance between the accumulations and activities between both the administrator and social worker (in this example) would produce optimal opportunities for teaching and learning the new technology. This would be a good predictor of social work and administrator operation of Eden Alternative™ if the technology operated in this way (as a CAT scan does), if the setting only included these two operatives and if all of this happened within a discrete and observable amount of time.

First, Black et al.'s model does not address the complexity of the settings at East and West. Black et al (2004) reanalyzed Barley's (1986) data in which he observed two roles: technicians and radiologists working in traditional departments of radiology that were strictly hierarchical in structure previous to CAT scan introduction. Both the technicians and the radiologists completed their job tasks in relative proximity to each other so that Barley (1984) could observe both roles at work at the same time. The settings at West and East are far more complex than this primarily because there are at least eight different roles with some sub-roles working in the setting, which is a large building. Black et al.'s (2004) model does not account for this occupational complexity and diversity.

Overview of initial model formulation.

Signs (+ or –) at arrowheads indicate the polarity of casual relationships. A plus denotes that an increase in the independent variable causes the dependent variable to increase, ceteris paribus, and a decrease causes a decrease; that is, $X \rightarrow Y \Leftrightarrow \partial Y/\partial X > 0$. Similarly, a minus indicates that an increase in the independent variable causes the dependent variable to decrease; that is, $X \rightarrow Y \Leftrightarrow \partial Y/\partial X < 0$. Boxes represent stocks; arrows with valves represent flows. A stock is the accumulation of the difference between its inflows and outflows (see Sterman, 2000).

Source: Lodato, 2007, p. 20

Figure 6: Overview of Initial Model Formation for Social Workers and Administrators at East and West

Second, the nature of CAT scanning and other work accomplished in departments of radiology is relatively discrete. A scan is scheduled, the patient is brought to the area and ultimately they get their scan. Barley (1986) was solely interested in observing this scanning process. The long-term care environment is not so neatly arranged. The work of taking care of the residents who lived in East and West is a 24 hour a day, 7 day a week job. Again, Black et al.'s (2004) model does not account for this time dimension at all, as it did not need to.

Third, there were some differences in the type of data Barley (1986) collected and the data collected for this research. As described above, the researcher could not observe the entire task of taking care of the residents. What she did observe was meetings in the setting where care was planned, talked about and thought through. Further, the IRB for this research was specifically written to avoid observing the daily task of caregiving in these facilities to protect the confidentiality and privacy of the residents. As a result she did not directly observe the "doing" of the job of care, particularly on the part of the direct care staff. Thus this research could only complete half of the model.

As with Barley's (1986) model, the researcher could use Black et al.'s (2004) model to diagram successive interactions with two roles at a time. However, the problems inherent in doing this with the Barley (1986) model are problems inherent in doing so with Black et al. (2004) model as well. Because the Black et al. (2004) model is a dynamic, non-linear model, the risks of simply summing the individual interactions seem even greater. The time and energy to do so seem unjustified.

Thus, the solution to the problems with both models discussed above is to create a model that accounts for the complexity of what was observed and use that, as Black et al. (2004) did to explain behaviors the researcher observed and to predict future behaviors as well. The researcher has discussed this with her dissertation chair and the decision was made to save this modeling process for future work. It is not included with this dissertation.

Discussion

The purpose of this exploratory research was to explore the application of knowledge about disruptive technologies to the long term care setting using the Eden Alternative™ as an example. Further, that Eden Alternative™ would link to the literature on culture and structuration in that it would highlight the internal struggle of culture to resist or relent to change and how structures would reform in the new culture. In doing so the researcher sought to replicate the successful study conducted by Barley (1984, 1986) and supplemented by Black et al. (2004) that investigated the introduction of CAT scan technology in the radiology departments at two different hospitals. It is not uncommon for similar technologies to render different cultural formations after they are introduced, but it is Barley's (1984, 1986) feeling that what causes the differences has been wrongly attributed to characteristics of the technology itself. Barley (1984, 1986) hypothesized that it was not the CAT scan technology that leads to different outcomes in each department of radiology, but the social interaction with the technology.

As with other technologies, Eden Alternative™ has worked better in some settings than in others (Ransom, 2000; Wylie, 2001) and this research sought to determine if this was a result of social interaction with the technology as well. For the current study Eden Alternative™ was implemented in two long-term care facilities at approximately the same time and the researcher conducted observations to see how the two organizational cultures

149

responded to the changes there were being made and look at the differences in implementation.

In the end this research has discovered that Eden Alternative™ did indeed behave as a soft technology disrupting the existing culture of both settings into which it was introduced during the observation period. The results, while not identical to those seen by both Barley (1984, 1986) and Black et al. (2004), reveal that the ways in which the behaviors change in relationship to the technology are similar to what these previous researchers found. When introduced, Eden Alternative™ disrupted roles, rules, resources and power in ways that reflected both the disruptions seen by Barley (1984, 1986) and Black et al. (2004) and the changes occurring in the environment. The researcher saw a shift in how decisions were made and the rules by which decisions were governed in both settings. This disruption was perceived and responded to in very distinct ways in each facility. Eden Alternative™ changes were also unique to each setting based on the circumstances in each facility, including the personalities and abilities of the staff, the circumstances in which the facility functioned and the interactions with the expertise with Eden Alternative™ of the administrator in using and implementing Eden Alternative™.   Additionally, the researcher observed the cultural and organizational response when a new disruption is introduced during the *Edenization* process. Only one facility was disrupted by this change and both facilities were observed while it was absorbed and accommodated.

In the first phase of structuring both administrators relied heavily on giving directions to govern the facility and begin the culture change process. This is very much in line with the medical model and thus would have been expected from these administrators historically. As the facilities transitioned into the second stage they began to respond somewhat

differently. At East, where the administrator was not the in-house expert on Eden

Alternative™, they moved on to a phase of mutual planning coupled with direction giving.

This appears to be because the administrator was learning about Eden Alternative™ with

most of the other managers and staff. Juggling these new behaviors would make the

transition somewhat 'bumpy.' The staff and managers at East began to see their own

progress and made a point of recognizing this and encouraging each other. This seemed

important because they began to see what they were doing right in the process. At West,

where the in-house expert on Eden Alternative™ was the administrator, their second stage

consisted primarily of anticipatory questions on the part of the administrator to encourage the

other managers and staff to think about what the resident or the facility needed and come up

with the answer themselves. There was also direction giving at West during the second

stage.

On the day the researcher resumed observations after a 3 month break, East

experienced another disruption when they were told they were going to be transitioning one

unit to Medicare rehabilitation. As a result of this disruption, the administrator and other

managers seemed to revert to management styles that were more familiar to them, direction

giving in particular. This could have been because they needed to move quickly on this

change and making change happen by giving directions was more familiar to them. Eden

Alternative™ was not abandoned at that stage, but it took a back seat to other more familiar

interactions in the time immediately after this change. When plans were implemented to

make the shift to Medicare rehabilitation beds, the facility got back on track with Eden

Alternative™ and continued with the changes they had planned in addition to the Medicare

transition. West was faced with the same Medicare transition but did not appear to be disrupted by it.

This difference highlights an important theoretical concept that is relevant to this investigation. Unlike Barley's (1984, 1986) investigation, expertise in this setting had the potential to rest in anyone along the power structure. Both East and West had sent staff from all levels from housekeeping and facilities to CNA's, nurses, social workers and the administrator to the Eden Associate™ training. However, in one facility, West, expertise in guiding the change to Eden Alternative™ rested with the administrator and it did not with the administrator at East. When expertise in the technology resides in someone other than the administrator the culture change process may be affected. At East the administrator was learning Eden Alternative™ at the same time she was running a busy facility and changing thirteen rooms to Medicare suites for short-term rehabilitation. Thus, she was not "fluent" in Eden Alternative™ and had to remember to "do Eden™" in her daily functioning. On the other hand the administrator at West was fluent in the Eden Alternative™ and she did not have to think as hard about incorporating Eden™ in her daily work. It was possibly easier for the administrator at West to function in a transitioning Eden™ environment because she knew exactly what to do there.

There are important consequences in the administrators' ability to change their roles as they lead the organization toward culture change in this research as well. Both administrators needed to de-emphasize their leadership and decision making as part of implementing Eden Alternative™. In doing so they changed the roles they fulfilled, the power they employed and the practices involved in doing their work. They needed to prepare their other managers and staff to receive this power and in turn change their roles and

152

practices in doing their work. This empowerment process is challenging because those who need to take the reins may be nervous about it, confused, resistant or scared of making mistakes. Both administrators were successful at starting to make this transition and this is visible in the observations, but it appeared to happen more smoothly where the administrator was very familiar with the Eden Alternative™.

Once East moved their morning management meeting to the neighborhoods culture changes became more readily apparent to the researcher in her observations. This transition brought the direct care staff into the important daily meeting that plans care needs, responds to changes in condition and moves the facility forward in the day. CNA's and direct care nurses became a part of this meeting, requesting services and needed resources for the residents under their care. Previously, behaviors and needs would be communicated up the chain of command to the ADON or DON who attended this meeting where a plan would be made for the resident and communicated back down to the direct service providers to implement. Not only was the new meeting format more efficient in meeting resident needs but it was also empowering for the direct care staff. This is one of the transitions expected of facilities which are *Edenizing* and it is clear it made a difference at East in their culture change process when it was implemented. At the time observations ended, West had yet to implement this change and morning meetings were handled in the same way.

However good this change was for resident care it was not without its pitfalls. Other managers, most notably the social worker seemed to attend morning meeting less frequently at East once it was moved to the neighborhoods. At least she was not present in these meetings when the researcher was in attendance. This may have been by expectation but it may also have been a reflection of the social worker's decision to resign at East as she left

the facility shortly thereafter. She was not however, the only manager to stop attending

morning meeting on a regular basis. Regardless of the reason, it seems important to this

researcher that those other staff responsible for care also be present for care planning and

intervention particularly those staff responsible for nurturing the social aspect of care in a

culture changing environment.

Most of the roles observed over the course of this research did not substantially

change. Many of the roles observed for this research including social work, activities,

dietary, facilities and other did not appear change in substantial ways. Certainly some of the

expectations were different, but how they did their jobs on a daily basis was not that

different. The administrators' and the CNAs' roles would be expected to change the most,

given the anticipated changes when the organizational structure is flattened. The

administrator had the most power to relinquish and the CNA's had the most to pick up and

use to the advantage of the residents in the facility. Those staff and managers in the middle

of the organizational structure did not have to change as much in their daily work behaviors,

although change was required. Therefore, one would expect the transition to be harder for

administrators and CNA's and, while this research did not specifically seek to address this

question, it certainly merits further investigation.

While roles, power and practices were shifting there appeared to be no formalized

shift in the organizational hierarchy by changing the job descriptions or altering other

structures which supported it. It is unknown at this point whether this is ultimately done as

the Eden Alternative™ was fully implemented because observations came to an end.

Changing the job descriptions would be an indication of the shift in organizational values and

beliefs about how care is provided and an indication in change culture. Another would be

154

changing the yearly evaluation process. Without these changes, one is left to wonder how deeply culture change permeates the organization and when Eden Alternative™ implementation is "finished." Without formalizing the changes in roles, power and practices, those who work in the environment might feel like the new way of doing things is temporary and will be changed again. This also might confuse newly hired employees about where culture change fits in the hierarchy as well.

Because Eden Alternative™ did function disruptively the researcher could also see how it stimulated the morphogenic process described in chapter 2 (Archer, 1996). In part the pressure on the culture to change is what leads to different outcomes in each setting because the pressures will be unique to each setting and will manifest in different ways. Documenting this interaction with morphogenesis is helpful because it gives those who seek to implement Eden Alternative™ a frame of reference in the anthropological literature for how cultures change, what works and what does not when implementing changes. To the researcher's knowledge, this link has not previously been established but it is one that should be very helpful to anyone seeking to implement culture change in long-term care facilities.

Structuration occurs as the culture begins to harden after a change when new structures develop around new behaviors, rules, expectations, practices and power. As a result neither facility was fully restructured when observations stopped, but the processes which give rise to this hardening were underway. Based on what was observed the researcher surmises that the new cultures and structures will look somewhat different than they did at the beginning of culture change and the facilities will be very different from each other as they were at the beginning of the process. However, how the new culture re-forms is subject to events that are unknown and that the researcher has not observed as to what

happened after data collection concluded. These new structures might include a revised

organizational chart with new job descriptions, revised care planning methods that reflect the

person-centered nature of care in each facility and others.

Across the stages observed in this research it is important to note the things that the

researcher did not see as well as those things she did. Staff and managers at both East and

West treated each other with respect and dignity. At no time did the researcher see a lot of

negative leadership behaviors. There was no tendency to blame each other when things went

wrong. Further she witnessed a real desire to support each other, the other staff and the

residents through the culture change process. Discussions were civil even if they were

sometimes heated. No one appeared to feel that they alone knew what was best for the

facility or its residents. As the observation period progressed both groups of managers

appeared to grow to like and trust each other more. This was particularly true at West

because most of the managers were new to the facility at the time observations began. These

groups also seemed to be very interested in this research, asking questions and chatting with

the researcher when she was present in the group. They seemed to want to know if they were

doing well.

Further research that will offer much more detailed insight into what works and does

not work when implementing culture change is needed. This research needs to focus on

developing an understanding of the best ways to investigate culture change as it is happening

by identifying applicable and appropriate outcomes that reflect the goals of culture change

and are not just inherited from investigations of medical model facilities. This would include

continued investigation of the type untaken here, but certainly there are other creative

directions in which this could go. Ideally, for this researcher, the investigation would pick up

at East and West now, a year later, to check in on their progress and see what changes have happened. However, it is also important that this investigation be expanded to determine if other regions of the country and the world, with different facilities and facility organization, yield similar or dissimilar results. From there, once the dynamic model for *Edenization* is developed, it can be tested and refined. It would also seem wise to investigate other person-centered care philosophies.

While this research did not specifically seek to document resident outcomes with this investigation, there certainly seems to be compelling evidence that this should be done but it should be done with an eye to resident responses to organizational shifts in the same way this research has focused on staff responses to organizational shifts. Not only would this help illustrate how resident care reacts to culture change, it will help document a new element of technological introduction—that of the impact on the customer involved. Because there is really a triad functioning in a long-term care facility, the administration, the staff and the residents and their families it is very important to include them in the model as it develops.

Even though a full model of the dynamic process of culture change was not developed for this work, it is possible that it would be more effective to model each role or function in a long-term care setting. However it is done, the researcher sees its potential in a number of areas. First, it would begin to document the complexity of the culture change process and show where and how the disruptions occur as culture change happens. Second, as it did with Black et al. (2004), a model will enable the researcher to explain what happened for the events to unfold as they did. By looking at the individual contributions of expertise, activities and the recursive relationship between them, each facility could understand better its development through the process. Third, it would allow the researcher

to predict some of the future interactions with culture change as a technology and the outcomes of those interactions. This presents the possibility that this model could be employed in the future with facilities considering implementing the Eden Alternative™ as one of a number of assessment processes to determine their readiness for culture change and how it is likely to go. Fourth, the ability to assess a facility's readiness to implement the Eden Alternative™ could help prevent *Edenization* failures and also help those involved plan ways in which to improve readiness before culture change is begun.

Implications for Social Work Practice, Education and Research

This work has numerous and important implications for social work education practice and research. It is particularly interesting that social work roles experienced very little change as Eden Alternative™ was implemented. In the medical model the natural leaders in long-term care facilities were medically trained staff and managers who insured quality care. In a social model of care it stands to reason that the natural leaders are those people with expertise in social systems, the social workers. However, that is not what this study has found in practice. The social workers' jobs appeared essentially unchanged as the environment changed around them. Social workers serve an important function in the systems of care observed by connecting residents and their family members to resources, assessing and addressing the residents' mental health status, facilitating discharge from the facility for those who do leave to ensure a smooth transition and numerous other services and many others. Social workers receive training in systems organizing, functioning and transition that could make them experts in guiding the culture change movement in long-term care facilities. However, the social workers were generally not seen as knowledgeable in these areas. The social services staff should be nurtured in order take these leadership roles

they do not currently hold. They may step into leadership in culture changing organizations from their existing roles or they may be encouraged to train for nursing home administrator certification or other leadership roles in long-term care organizations. The barriers to using their expertise in this way need to be identified and addressed.

Long-term care facilities are required to have a social worker on staff however, like East many facilities will hire a social worker who has never worked in long-term care; certainly many will hire inexperienced workers untrained in leadership roles. Some facilities, unable to attract or afford a qualified social work applicant will hire people from other disciplines to provide this needed service. This dearth of qualified professionals is caused by two simultaneous deficiencies. First, fewer social work students are interested in working with older adults (CSWE Gero-Ed Center, retrieved 5/19/09) than are interested in working with other populations. While the reasons for this are quite varied the result is that fewer students seek out specialized electives in gerontology during their training at the BSW or MSW level. Once out of school many new professionals end up working in long-term care because that is where they can get a job and they end up doing work for which they have no preparation (CSWE Gero-Ed Center, retrieved 5/19/09) and few skills.

The Hartford Foundation formed a partnership with the CSWE in 1998 to develop the Gero-Ed Center, specifically designed to gerontologize social work education. "'Gerontologizing' these programs means embedding gerontological competencies into the foundation curriculum and the overall organizational structure of social work programs." (CSWE Gero-Ed Center, retrieved 5/19/09) The researcher has worked at part of this initiative since 2001 and can attest personally to the widespread impact on social work education this project is having, but there is more that can be and should be done.

Social work education must still do a better job preparing social workers to work and lead in long-term care settings or settings serving older adults in general. Specifically this training should offer students content they will need to evolve into the kind of leaders the culture change movement needs. This would necessarily include course content on nurturing and fostering change in large medical model systems of care, how to manage that change and inevitable conflict that arises during the process. Students should learn the culture change model as part of their training so that the vocabulary, goals and objectives of culture change are known to them when they enter the setting. Training in social work advocacy on an organizational level should be included as well. Culture change with its person-centered goals is being integrated into long-term care survey and licensing requirements however advocacy is necessary to ensure that realistic and obtainable benchmarks are included in this process. This training should include an understanding of how to advocate on the local and national level to bring about policy changes that support person-centered social models of care.

All of this education needs to be grounded in extensive research that includes investigation into evidence-based outcomes that document the shifts in social workers' roles and the impact this has on the culture change process in addition to the research recommended above. All of the changes in social work roles will need to be investigated to determine the effectiveness of these changes.

Limitations

This study does have limitations that are important to address. The researcher had only a limited amount of time to spend in observations. The data would have been much more detailed had she been able to be in the facility more hours per week and if those

160

observations could have included all interactions in the facility including resident interactions with staff and other residents as well. While the data collection period spanned 10-12 months when looking at the patterns emerging in the data, it would have been very helpful to extend that period up to another 12 months if possible. The researcher was warned that she might not see much change in the observed facilities in the time she had available, but that was risk she was willing to take. One advantage of the researcher's health issues during the observation period is that it extended the observation window and required a certain amount of time away from observations. Since much of the changes noted here happened after she returned to data collection, the break was indeed helpful methodologically.

This is a qualitative study which sampled only two long-term care facilities in the same geographic region of the U.S. Because of this the results found here have limited generalizability. However, because this researcher looked at Eden Alternative™ implementation in a new light, this research will be helpful to other facilities implementing this social technology if only to offer one more way to look at the process. Not only does this kind of culture change require a good understanding of the changes to be implemented, but also an understanding of how the environment will react to it and why. There is a solid history of sociological and anthropological theory to draw on for this understanding and the researcher could not find precedent in the literature for its consideration.

Conclusion

The population of older adults will swell as the baby boomers age. There will be unprecedented demand for care of these older adults as they become frailer. It is unlikely that traditional institutionalized care as it has been given historically will be tolerated by either the older adult or those entities that pay for it. More than that, morally and ethically

long-term care needs to be humanized where those living in a setting can thrive while enjoying an atmosphere that feels like home at the same time their medical needs are met. The Eden Alternative™ and other person-centered care philosophies offer this way of looking at long-term care that is long overdue.

However, even if it is a desirable change, there must also be evidence to support the efficacy of implementing culture change in long-term care. Social work as a profession offers many of leadership qualities needed to nurture a home-like environment in long-term care settings which augments quality medical care. This researcher has found that social work professionals are an underused resource in the settings she observed which mirrors the underuse of these professionals industry wide. Ultimately, the outcomes must justify the effort, money and time spent on the transition. So far the research has not consistently offered that justification (Barba et al., 2002; Bergman-Evans, 2004; Deutschman, 2005; Freedman, 2005; Kane, 2001, 2003; Ronch, 2003; Rosher & Robinson, 2005; Roth, 2005). Not only should there be more study done on how cultures change in institutional settings, but there should be more study in general that looks at reasonable outcomes and investigating how the transition to person-centered care proceeds when the process is facilitated by experts in social systems.

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Appendix A

Staff Survey

Culture Change

1. What is your current job in the long-term care facility in which you work?

2. How long have you been in your current job?

3. How has your current job changed since this facility began the culture change process?

4. How involved are you in planning and implementing the culture change process in the long-term care facility in which you work?

5. What changes in resources, those available to you to do your job tasks, have you noticed since the facility began the culture change process?

6. What changes in resources, those available to residents and family members to support the living environment have you noticed since the facility began the culture change process?

7. What changes in the ways decisions are made and the facility is managed have you noticed since the facility began the culture change process?

8. What changes in the physical environment of the long-term care facility in which you work have you noticed since the culture change process began?

9. What changes in the ways conflict or complaints are handled by staff and administration have you noticed since the culture change process began?

10. What changes in collaboration and cooperation between and among staff have you noticed since the culture change process began?

11. What changes in collaboration and cooperation between and among staff and residents/family members have you noticed since the culture change process began?

12. To your knowledge, what future changes are planned in the culture change process over the next 6 to 18 months? Include your knowledge of upcoming changes to job roles and responsibilities, physical environment changes, and others that may apply.

Appendix B

Initial Coding Scheme Operational Definitions

Disruptive Technology Properties (DP): elements of the disruptive technology, in this case the Eden Alternative that describe the organizational expectations, goals and objectives.

DP: Objectives—The stated goals for the change to the DP will initiate or cause

in the organization

DP: Organization—The stated anticipated changes in the organization as a result of implementing the DP.

DP: Implied Changes—Changes that are expected as a result of implementing the DP but are not explicitly stated.

DP-Ch/RC—Implied changes specific to resident care and quality of life.

DP-Ch/Org—Implied changes specific to the organizational Structure

DP: User Assessment—Organizational staff and management's assessment of the changes in the organization as a result of implementing the DP.

External Context

EC: Demographics—

Facility characteristics-- Unique characteristics (location, size, staff, etc) of the Long-term care facilities under investigation

EC: Endorsement—

        EC-Facility Staff-- Acceptance of the culture change process as a positive

change for the organization from the staff and managers employed there

        EC-Resident Base- Acceptance of the culture change process as a positive

change for the organization by the residents who live there and their family members

    EC: Climate—

ED--Facility Staff—staff and management attitude toward culture change

process.

        EC--Resident Base—resident and family member attitudes toward the

culture change process

Internal Context

    IC: Characteristics—existing characteristics of the facility

    IC: Roles—existing roles in the facility based on job descriptions

IC: Rules—

    IC-Rul/pract—expectations that govern behavior about which people are

generally unaware, are part of practical knowledge (Giddens, 1984)

    IC-Rul/disc—expectations that govern behavior about which people are

        aware, are part of discursive knowledge. (Giddens, 1984)

    IC: Resources

IC-Res /alloc—ability to exercise control over objects, goods or "material

phenomena" (Taylor et al, 2001)

        IC-Res/author—ability to exercise control over persons or actors (Taylor,

        et al, 2001)

IC: Power—mobilization of resources in the course of interaction (Giddens,

1984)

IC: Centralization—degree to which power rests in the hands of the management

of a facility

IC: Innovation History—facility history of developing new practices in the care

of residents

IC: Procedures—written and formalized rules governing the facility

IC: Innov/Organ fit—congruence between innovation, particularly the DP and

the organization

Culture Change Process

CCP: Event Chronology Public—officially documented progress of events in the

process of culture change

CCP: Event Chronology Subterranean--—unofficial and undocumented progress

of events in the process of culture change

CCP: Motives--desires, values and beliefs at the root of why this facility is

planning culture change.

CCP: Plan—outline of future events that will happen as part of culture change in

a facility

CCP: Readiness—facility preparation and ability to undertake the culture change

process at this time

CCP: Critical Events—happenings in the culture change process that are seminal

in identifying the facility's progress of change

Facility Dynamics and Transformations

TR: Event Chronology Public-- officially documented progression of changes in

the process of culture change

TR: Event Chronology Subterranean--unofficial and undocumented progression

of changes in the process of culture change

TR: Initial User Experience—staff and management first experiences with

culture change as the process begins/began.

TR: Changes in Innovation—alterations made to the Eden Alternative model as it

is implemented to better fit the needs of the facility, staff, managers,

residents and family members

TR: Effects on Org. Roles—changes in existing roles in the facility based on job

descriptions as a result of implementing the Eden Alternative model.

TR: Effects on Org Rules

TR-Rul/pract—changes in existing expectations that govern behavior

about which people are generally unaware, are part of practical

knowledge as a result of implementing the Eden Alternative model (Giddens, 1984)

TR-Rul/disc—changes in existing expectations that govern behavior about

which people are aware, are part of discursive knowledge as a

result of implementing the Eden Alternative model. (Giddens, 1984)

TR: Effects on Org Resources

TR-Res/alloc—changes in the existing ability to exercise control over

objects, goods or "material phenomena" as a result of

implementing the Eden Alternative model (Taylor et al, 2001)

TR-Res/author—changes in the existing ability to exercise control over

persons or actors as a result of implementing the Eden Alternative model (Taylor, et al, 2001)

TR: Effects on Org. Power—changes in the existing ability to mobilize

188

resources in the course of interaction as arsult of implementing the Eden

Alternative Model (Giddens, 1984)

TR: Effects on Org Centralization-- changes in the degree to which power rests in the hands
of the management of a facility   as a result of implementing the Eden Alternative model.

TR: Effects on Org Practices—changes in how various roles interact (staff,

managers, residents) on a daily basis in the process of meeting resident,

family member, staff and manager's needs.

TR: Implementation Problems—unanticipated events that hinder or delay

implementation of the Eden Alternative model in a facility

TR: Critical Events-- happenings in the culture change transformation process

that are seminal in identifying the facility's progress of change

TR: External Interventions—assistance required/needed from outside experts in

the process of implementing the Eden Alternative model

TR: Explanations for Transf—reasons offered for the process of transformation

in the process of implementing the Eden Alternative model.

TR-Program Problem Solving—changes in problem solving processes in a facility

as a result of implementing the Eden Alternative model.

New Configuration and Ultimate Outcomes

NCO: Stabilization of Innovation—Accommodation and integration of new

model of care over time as the Eden Alternative is implemented

NCO: Stabilization of Roles—accommodation and integration of changes in

existing roles or new roles in the facility based on job descriptions as the

Eden Alternative model is implemented.

NCO: Stabilization of Rules

189

NCO-Rul/pract—Accommodation and integration of changes in existing

expectations that govern behavior about which people are

generally unaware, are part of practical knowledge as a result of

implementing the Eden Alternative model (Giddens, 1984)

NCO-Rul/disc—Accommodation and integration of changes in existing

 expectations that govern behavior about which people are aware,

are part of discursive knowledge as a result of implementing the

Eden Alternative model. (Giddens, 1984)

      NCO: Stabilization of Resources

NCO-Res/alloc—Accommodation and integration of changes in the

existing ability to exercise control over objects, goods or "material phenomena" as a result of
implementing the Eden Alternative model (Taylor et al, 2001)

          NCO-Res/author—changes in the existing ability to exercise control over

persons or actors as a result of implementing the Eden Alternative model (Taylor, et al, 2001)

      NCO: Stabilization of Power : Accommodation and integration of changes in the

existing ability to mobilize resources in the course of interaction as a result

of implementing the Eden Alternative Model (Giddens, 1984)

NCO: Stabilization of Centralization-- Accommodation and integration of the changes in the
degree to which power rests in the hands of the management of a facility as a result of
implementing the Eden Alternative model.

      NCO: User first-level outcomes

Positive/Negative	NCO-1oc/+-
Anticipated/Unanticipated	NCO-1oc/a, u
Combination	NCO-1oc/a+, a-
	u+, u-
User Meta Outcomes	NCO-meta

Positive/Negative	NCO-meta/+-
Anticipated/Unanticipated	NCO-meta/a,u
Combination	NCO-meta/a+, a-
	u+, u-
User spin offs and side effects	NCO-side
Positive/Negative	NCO-side/+-
Anticipated/Unanticipated	NCO-side/a, u
Combination	NCO-side/a+, a-
	u+, u-

NCO: Stabilization of Organizational Behavior-- Accommodation and integration of changes in overall organization as a result of implementing the Eden Alternative model.

NCO: Organizational first level outcomes—initial outcomes which have significant and immediate impact on individual staff, managers, residents and/or family members.

Positive/Negative	NCO-org1oc/+-
Anticipated/Unanticipated	NCO-org1oc/a, u
Combination	NCO-org1oc/a+, a-
	u+, u-

NCO: Organizational meta outcomes—outcomes which have a significant impact on the organizational system as a whole

Positive/Negative NCO-met/+-	
Anticipated/Unanticipated	NCO-meta/a, u
Combination	NCO-meta/a+, a-
	u+, u-

NCO: Organizational spin offs and side effects—outcomes not on the immediate

system or staff, managers, residents and/or family which are important.

Positive/Negative   NCO-side/+-

        Anticipated/Unanticipated   NCO-side/a, u

        Combination   NCO-side/a+, a-

                                         u+, u-

    NCO: Organizational Reduction—decrease in size of organization as a result of

        implementing the Eden Alternative model.

External and Internal Assistance

    Ass: Roles—assistance developing new roles for the facility staff and managers

        as the Eden Alternative model is implemented.

    Ass: Rules—

Ass-Rul/pract—Assistance developing new expectations that govern

    behavior about which people will become generally unaware, and

    will be part of practical knowledge as a result of implementing the

    Eden Alternative model (Giddens, 1984)

Ass-Rul/disc—Assistance developing new expectations that govern

    behavior about which people are and will be aware, will be part of

    discursive knowledge as a result of implementing the Eden

    Alternative model. (Giddens, 1984)

    Ass: Resources—

Ass-Res/alloc—Assistance implementing changes in the

ability to exercise control over objects, goods or "material phenomena" in the facility as a
result of implementing the Eden Alternative model (Taylor et al, 2001)

Ass-Res/author—Assistance implementing changes in the ability to

exercise control overpersons or actors in the facility as a result of

implementing the Eden Alternative model (Taylor, et al, 2001)

Manager/Staff Interactions

MSI: Accumulated Expertise—those with more knowledge of the DP determine

who among staff gets to engage in activities that would teach them about

the DP (Black et al, 2004)

MSI: Accusatory Questioning—person in authority accusing staff member of

being incompetent after staff takes action without permission to do so

(Barley, 1986)

MSI: Anticipatory Questioning-- rhetorical questions which presume their

answers. Usually asked by person in authority of a staff member (Barley,

1986)

MSI: Blaming—blaming staff for problems that rest elsewhere (Barley, 1986)

MSI: Clandestine Teaching—staff subtly act to instruct a person in authority

without directly challenging institutional relationships. (Barley, 1986)

MSI: Collaboration-- balanced accumulation of expertise for both staff and

persons in authority (Black et al, 2004)

MSI: Countermands—person in authority reversing directions to staff previously

given (Barley, 1986)

MSI: Direction Giving—staff following instructions given by person in authority (Barley,
1986)

MSI: Direction Seeking—staff following instructions after inquiring about what

should be done. (Barley, 1986)

MSI: Integrating Activities

MSI: Mutual Execution—balanced give an take of directions and input between

staff and persons in authority (Barley, 1986)

MSI: Occupational Separation—person in authority limits their learning in a

situation by leaving the environment leaving the staff to do their work

without insight into why it is important (Black et al 2004)

MSI: Preference Stating—person in authority stating and rationalizing

preferences for how things are done. (Barley, 1986)

MSI: Professional Dominance—persons in authority dominate obtaining

 knowledge of the DP (Black et al, 2004)

MSI: Role Reversal—staff and manager roles reverse (Barley, 1986)

MSI: Technical Consultation—staff member provides person in authority with

proper action in a situation after being asked to do so (Barley, 1986)

MSI: Unexpected Criticisms—direction seeking responded to with sarcasm by

the person in authority (Barley, 1986)

MSI: Unsought Validation—staff member takes action which is then inquired

about and validated after the fact by a manager or person in authority. (Barley, 1986)

MSI: Usurping Control—person in authority takes over situation without any

verbal interactions or instructions to the staff (Barley, 1986)

SWR: Social Work Outcomes

SWR: Social Work Roles—changes in SWR roles as the Eden Alternative model

   is implemented.

   SWR: Social Work Resources

SWR-Res/alloc—Changes in SWR's ability to exercise control over

objects, goods or "material phenomena" in the facility as a result of

implementing the Eden Alternative model (Taylor et al, 2001)

      SWR-Res/author—Changes in SWR's ability to exercise control

           over persons or actors in the facility as a result of implementing the

           Eden Alternative model (Taylor, et al, 2001)

    SWR: Social Work Rules

SWR-Rul/pract—New expectations that govern SWR behavior about

which SWR will become generally unaware, and will be part of   practical
knowledge as a result of implementing the   Eden

Alternative model (Giddens, 1984)

SWR-Rul/disc—New expectations that govern SWR behavior about

which SWR is and will be aware, will be part of discursive

knowledge as a result of implementing the Eden

      Alternative model. (Giddens, 1984)

    SWR: Leadership—Changes in SWR leadership behaviors as a result of

      implementing the Eden Alternative Model

SWR: Power—SWR mobilization of resources in the course of

interaction (Giddens, 1984)

    SWR: Role in Centralization—SWR role in facilitating the degree to which

      power rests in the hands of the management of a facility

	Appendix C: Code Frequencies for East				
Codes	ICResources	MSIAdminDirecGive	SWRRoles	MSIMutualPlanning	CCPEvtChrono
Stage 1	36	32	49	36	31
Stage 2	49	37	38	21	34
Stage 3	37	43	17	34	18
Codes	CCPPlan	ICRoles	MSIDirectionSeeking	ICRules	MSIOthDirectGiv
Stage 1	43	50	9	39	10
Stage 2	34	24	20	8	26
Stage 3	3	3	19	0	7
Codes	ICRulesICRuldisc	ICResour	MedicareTransition	CCPCriticalEvents	ICCentralization
Stage 1	25	12	0	7	17
Stage 2	6	14	3	5	3
Stage 3	0	3	25	12	3
Codes	MSIPrefStating	ICProcedures	MSIAntiQuestion	TREvtChronolPublic	CCPEvtChronoS
Stage 1	7	6	4	0	4
Stage 2	8	11	3	17	12
Stage 3	7	1	10	0	1
Codes	MSIUnsgtValid	CCPReadiness	ECRegulatory	ICPower	TREffOrgRoles
Stage 1	3	6	3	5	0
Stage 2	5	7	6	6	9
Stage 3	8	2	2	0	2

Codes	MSIBlaming	ECDemographics	MSIOccupSep	MSIMutualExecution	ECClimateStaff
Stage 1	9	4	8	2	0
Stage 2	0	0	1	1	0
Stage 3	0	0	4	4	0
	MSIAccusQuest	MSIClandesTeach	ECEndorseStaff	MSINegDependence	ICDecentral
Stage 1	5	0	2	1	0
Stage 2	2	0	1	1	1
Stage 3	3	1	0	1	1
	MSIAccumulatedExpert	MSICountermands	TRImpProb		
Stage 1	0	1	0		
Stage 2	1	0	0		
Stage 3	1	0	1		

Appendix D: Code Frequencies for West							
Codes	IC:Resource	MSIMutualPlan	MSIAdminDirect	SWRRoles	MSIOthDirectG	CCP: Plan	ICRoles
Stage 1	53	43	47	27	20	45	33
Stage 2	62	44	36	44	37	2	6
Codes	MSIAntQue	ICResourcesalloc	MSIOccSep	MSIDirectionSeek	MSIPrefStating	ICRulespra	ICProce
Stage 1	3	20	13	10	7	21	15
Stage 2	29	11	14	14	16	1	6
Codes	CCP:Ready	CCPEvtChronoP	CCPCritEvts	MSIUnsgtValid	TREvtChronoP	MSIBlame	ICRuldi
Stage 1	18	8	9	7	3	4	10
Stage 2	0	12	8	8	13	8	1
Codes	MSINegDep	ECDemogs	CCPMotives	MSIUnexpCritic	MSIDirectSeek	MSIAccus	MSIRes
Stage 1	3	9	8	4	7	2	3
Stage 2	6	0	0	3	0	4	2

Codes	Medicaretra	ECRegulatory	TREffOrgRulepra	IC:Characteristics	MSIProfDom	ICInnoHIst	ECClim
Stage 1	1	3	2	3	1	2	2
Stage 2	3	1	1	0	2	0	0