



**THE SYNERGETIC ROLE OF PROJECT MANAGEMENT IN THE
UPGRADING OF THE GREEK HIGHER EDUCATION SYSTEM**

By

ELEFThERIA M. ZAGORAKI

A THESIS REPORT

Presented to the Project Management Program in the

School of Management of

City University of Seattle

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE OF PROJECT MANAGEMENT



June 2011



**THE SYNERGETIC ROLE OF PROJECT MANAGEMENT IN THE UPGRADING OF THE
GREEK HIGHER EDUCATION SYSTEM**

By

Eleftheria M. Zagoraki

A THESIS REPORT

Presented to the Project Management Program in the

School of Management of

City University of Seattle

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE OF PROJECT MANAGEMENT

This Master Thesis was elaborated in the frame of the collaboration of the City University of Seattle and the Graduate Technological Education Institute (T.E.I.) of Piraeus to fully implement at TEI of Piraeus Campus the CU's MS in Project Management Program approved by the Hellenic Ministry of National Education and Religion Affairs as by decision E5/58291 published in the Hellenic Government Gazette (FEK) B/924/5- July-2005.



June 2011

TITLE OF THESIS

***THE SYNERGETIC ROLE OF PROJECT MANAGEMENT IN THE
UPGRADING OF THE GREEK HIGHER EDUCATION SYSTEM***

I, Eleftheria Zagoraki, do hereby irrevocably consent to and authorize the City University of Seattle Library to file the attached thesis The Synergetic role of Project Management in the upgrading of the Greek Higher Education System and make such paper available for use, circulation, and reproduction by Library users at the City University of Seattle Library and all site locations.

I state at this time that the contents of this paper are my own work and completely original.

Eleftheria Zagoraki

2011/06/30

APPROVED:

THE THESIS ADVISING COMMITTEE

a) A. Spyridakos

b) L. Vryzidis

c) K.Kantzos

(Print or type name)

(Signature)

(Date yy/mm/dd)

THE CU PROGRAM DIRECTOR:

(Print or type name)

(Signature)

(Date yy/mm/dd)

CityUniversity of Seattle

Thesis Approval Form

STUDENT NAME

ZAGORAKI

ELEFThERIA

MICHAIL

2011813

Last name

First, Middle,

Futher's name

I.D.#

ADDRESS

1 ALIKARNASSOU

PIRAEUS

ATTIKI

GREECE

Number, Street

City

State

Zip/Country

COURSE

THESIS

2011

Course No.

Credits

Term

Year (yyyy)

TITLE OF THESIS

THE SYNERGETIC ROLE OF PROJECT MANAGEMENT IN THE UPGRADING OF THE GREEK HIGHER EDUCATION SYSTEM

Statement from student: This research report is an original work never published or submitted to any other university. All sources used in the writing of the thesis are identified. I understand that an electronic and a bound copy of my thesis may be placed in the City University of Seattle Library and will be accessible to the public.

Student's Signature

Date (yy/mm/dd)

To be completed by faculty

I hereby acknowledge that I have read and approved the thesis submitted by the above student:

THE THESIS ADVISING COMMITTEE:

a) A. SPYRIDAKOS

b) L. VRYZIDIS

c) K. KANTZOS

Print or type name

Signature

Grade(d.,d)

Date(yy/mm/dd)

THE CU PROGRAM DIRECTOR:

Print or type name

Signature

Grade(d.,d)

Date(yy/mm/dd)

FINAL GRADE (Average)

Dedication

This thesis is dedicated to my precious children Zografia and Maria and to my beloved husband Babis whose help and support throughout the MSc course proved to be invaluable.

Acknowledgments

The author of this thesis would like to thank her professor Dr. Athanasios Spyridakos for the priceless knowledge and information which he provided and without whose help this thesis could not have been successfully completed.

BIOGRAPHY

Eleftheria M. Zagoraki Electrical Engineer

Eleftheria M. Zagoraki has professional experience in Greek Higher Education for almost twenty years. A graduate of Rallios High School and Electrical Engineering degree holder, Eleftheria always felt that Project Management can contribute to the upgrading of the Greek Higher Education System.

For twelve years she was assistant manager in the Procurement Department of Technological Educational Institute of Piraeus and responsible for contracts regarding many construction and technical projects.

Until 2005 Eleftheria belongs to Maintenance Department of Technological Educational Institute of Piraeus and until 2010 is Deputy Head of the same department involving in many construction and technical projects.

From this responsible position, she feels the desire to give an impulse to her department by implementing project management best practices and advanced tools and techniques.

Table of Contents

CHAPTER I: INTRODUCTION TO THE PROBLEM	4
Introduction.....	4
Purpose of the study.....	5
The Critical Realist Ontology	6
Problem statement and research questions	8
CHAPTER II: LITERATURE REVIEW	10
Definition of a Project	10
Definition of Project Management	14
Higher Education and Organizational Change	18
Leading Change	22
Departmental Leadership and Change	24
Organizational Culture and Change.....	28
Chapter summary	32
CHAPTER III: METHODOLOGY	35
Introduction.....	35
The Case Method and Critical Realist Ontology	36
Selection of Participants	37
Research Design.....	39
Data Analysis Process.....	42
Trustworthiness.....	46

Credibility	46
Transferability	46
Dependability	47
Confirmability	48
Triangulation	49
Ethical Considerations	50
Chapter summary	50
CHAPTER IV: FINDINGS	51
Introduction	51
Thematic Contextual Elements: Project Management and Social Structures.....	51
Project Management Elements	53
Change Culture of Department	54
Previous Industry Experience	57
Graduate “Production Process”	59
Departmental Trust of Senior Level Administration	61
Social Structures and Project Management Mechanisms	64
The Role of the PM skills	65
Department Head Role as Project Manager in Strategic Change	67
Technology access for curriculum management.....	69
Training opportunities and support.....	71
CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS	75

Conclusions.....	75
Suggestions	81
Contribution and Recommendations for Further Research Opportunities	84
REFERENCES	88
APPENDIX A – INTERVIEW GUIDE	103
APPENDIX B – CHANGE MODEL FOR HIGHER EDUCATION	109

CHAPTER I: INTRODUCTION TO THE PROBLEM

Introduction

Change in organizations is a major theme of organizational studies. Researchers have investigated the nature of organizational change, the barriers and catalysts to change, and implementation strategies through project management and innovation. Researchers and practitioners have made recommendations regarding how change should be "managed" as top-down strategic change is introduced into an organization with the use of tools of the project management and innovation theory.

Strategic organizational change is challenging and the effective use of project management tools and innovative methods is required for the successful implementation of a change. In any context, the various member groups of the institution or organization view change in vastly different ways because of a variety of factors such as past experience with strategic change. While prescriptions for managing successful change through project management tools have been written, successful implementation for strategic change is highly problematic (Rhoades, 2003; Trader-Leigh, 2005).

Based on several large-scale change evaluation studies and his own personal engagement with several change projects, Michael Fullan, a leading Canadian researcher on educational change, noted (1997) that "neither top-down nor bottom-up strategies for educational reform work" (p 1). His conclusion was that a more intricate and multi-faceted approach is required. Margaret Wheatley, the author of *Leadership and the New Science* (1995) - a breakthrough book about the nature of organizations based on systems theory - is reported to have commented, "I noticed that if we had an organizational change effort that was successful, it felt like a miracle to us" (Wheatley, 1995, p 5). Further, change in "professional bureaucracies such as... universities in which highly trained and autonomous professionals, rather than administrators, largely control the core processes" (Zell, 2006, p.73)

is highly challenging as the professionals involved often question the wisdom of the upper management in launching a strategic change initiative.

Purpose of the study

The purpose for this study is to explore and understand the interplay between the broad socio-political context, the structures of the Greek universities and departments, the culture of the individual departments, and the agency of the departmental groups involved in a strategic change initiative and how project management tools may help the successful implementation of a change and upgrade in higher Greek education. It involves analyzing the structures of the institution and departments and how these are activated by departmental members. The analysis focuses on understanding how the emergent properties of the activated structures interact with the cultural components of the departments and how those interactions play out as a result of the strategic change initiative. The analysis is grounded in realist ontology using the work of Pawson and Archer as the theoretical frameworks. Hedstrom and Swedberg's (2001) typology of social mechanisms and Hedstrom's (2008) "Desires, Beliefs, Opportunities" (DBO) theory support the discussion of the findings. Through analysis of the individual cultures of the departments in the study, this research highlights the differing effects the same structures can have in the decisions made by actors in different cultures. Understanding how departmental logics and project management tools implementation may affect actors' motivation to act - either in engagement with the change initiative or in compliance or resistance - are key to this study. This research explores the phenomenon of engagement with strategic change through project management and innovation and the impact of structure and agency on engagement of agents with change. Looking at structure, culture, and agency as they relate to change in a higher education institution is in alignment with Kezar's conclusion that "organizational change can best be

explained through political, social-cognition, and cultural models" (2007, p. vii). Using both Archer's morphogenetic approach (1995, 1996) and Pawson's "context, mechanism, outcome" model, an understanding of strategic change is facilitated through the examination of the relationships amongst the mechanisms in the social and cultural realms. Additionally, Hedstrom and Swedberg's (2001) typology of mechanisms and Hedstrom's Desires, Beliefs, Outcomes (DBO) theory facilitate explanation of the causal mechanisms operating in this study.

The critical Realist Ontology

When I began this research, I knew that my basic stance towards the world was post-positivist in its assumptions. So I turned to postmodernism and explored how its premises fit with my view of the world. The highly relativistic, multiple realities of postmodernism seemed without an anchor in the real world as I know it. I knew that there had to be "theory that is better than what empiricism and post-modernism (had) to offer" (Moren & Blom, 2006, p. 43). As I read and learned, I realized that I subscribe to critical realist ontology. Here I will outline the basic premises of critical realist ontology as I understand them and applied them in this research.

1. A real world exists regardless of my awareness of it. In addition to the materially real made up of atoms and molecules, social and cultural practices are real as they affect behavior.
2. Ideas, concepts, construal—my interpretation of the meaning of something—are real as they have an effect on how I choose to behave.
3. The real world can be analyzed; this is the subject of the sciences. The goal of science—the natural and social sciences—is to gain as close an understanding as possible of the real structure or mechanism that exists independent of human beings and the conditions

which allow them to access the real. This is the intransitive dimension of science (Christofilis & Kousathana, 2005, p. 2).

4. "The transitive dimension is socially determined and changeable" (Danermark, Ekstrom, Jakobson, & Karlsson, 2005, p. 200). The transitive dimension of science refers to the social production of scientific knowledge based on antecedently existing knowledge from which new knowledge is formed. Transitivity represents the social character of science.

5. I, along with others, practice reflexivity—"the regular exercise of peoples' mental ability... to consider themselves in relation to their [social] contexts and vice versa" (Archer, in press).

6. Agency is essential to humanity. Humans pursue projects that are of importance to them; they have the will to act. It is the prioritizing of my concerns and launching activities in the form of projects to address those concerns that gives me my personal identity (Archer, 2003).

7. Reality has "hierarchically ordered levels where a lower level creates the conditions for a higher level... Each level has its own emergent generative mechanisms" (Danermark, 2005, p. 57). We start from 'the bottom,' finding physical mechanisms in one stratum, chemical mechanisms in another, biological in a third, and 'at the top' are the psychological and social strata. When moving 'upwards' through these strata, we find that each new stratum is formed by powers and mechanisms of the underlying strata. At the same time, this new stratum represents something entirely new, unique and qualitatively different, which cannot be reduced to underlying strata. When the properties of underlying strata have been combined, qualitatively new objects have come into existence, each with its own specific structures, forces, powers and mechanisms. The start of this new and unique occurrence is called emergence, and it is thus possible to say that an object has 'emergent powers.' (Danermark, et al., 2005, p. 60)

8. Social situations, organizations, and systems are, by necessity, open and as such, phenomena have complex and interrelating causal mechanisms.
9. Any social situation, organization, or system has both structural (organizational) and cultural (ideational) domains. These are relatively autonomous from each other, but their effects and relationships to agency add to the complexity of the analysis of any given social situation.

At its foundation, critical realism offers a more nuanced approach to truth and reality than positivist approaches with a focus on explaining the world where the explanations are offered as a possible starting place for debate (Mutch, Delbridge, & Ventresca, 2009). Such an approach resonates for me.

Problem Statement and Research Questions

This study explores how project management may be used for the change and upgrade of the higher Greek education system. Three Greek university departments with different cultures were selected as "mini" cases within this study, to examine the effects of project management tools implementation in the structural changes. The principal research question guiding the study was: How can project management help the successful implementation of a strategic change initiative in the process of upgrading the Greek higher education?

In order to explore the specific research questions, we have to mention that project management is highly connected with organizational culture. Indeed, in project management, organizational culture and structure is about what is conveyed to the project team members and stakeholders concerning the organization's commitment to the project through the organization's belief systems. Thus and based on the above, the following research questions were explored.

1. What is the nature of the university culture in each of the three cases studied?
2. Does an implementation project management strategy change during implementation?
If so, what contextual elements or emergent structural or cultural powers might result in the implementation strategy to be altered?
3. How does the implementation PM strategy affect the perceptions of the university faculty of the initiative within their departmental cultures? How do these perceptions differ amongst departmental cultures?
4. How do faculty perceptions of the strategic change implementation influence decisions to participate in the change initiative? How do faculty perceptions and actions change during the implementation of the strategic change and integration of the new structures - processes, procedures, rules, resources—into the departmental context?
5. How do leaders of change influence the level of engagement of other faculty in strategic organizational change in order to achieve the goal of upgrade in the higher Greek education system?

The interview guide used in this study is included in Appendix A.

CHAPTER II: LITERATURE REVIEW

Definition of a project

Project is a word frequently used in textbooks and standards, yet one seldom finds a precise definition of the concept (Munk-Madsen, 2008). A few international countries also find that there can be no specific definition of a project, and Laage-Hellman (2000) specifically pointed out that in Japan the definition of a project is normally not so clear. Nevertheless, many professional organizations have attempted to define a project, with the Project Management Institute (PMI) leading the initiating and structuring of project processes, including defining every aspect of project management.

Under the Project Management Body of Knowledge (PMBOK), PMI defined a project as, "A temporary endeavor undertaken to create a unique product, service or result" (p. 5). Lewis (2001) extended the PMI definition of a project as consisting of, "A one-time, multitask job that has clearly defined starting and ending dates, a specific scope of work to be performed, a budget, and a specified level of performance to achieve" (p. 4). DeCarlo (2007) advanced the definition into a living organic and fluid realm by stating, "A project is a localized energy field comprising a set of thoughts, emotions, and interactions continually expressing themselves in physical form" (p. 3), summarizing that, "A project, in sum, is a process throughout which thoughts and emotions are interactions embodied in physical form" (p. 31).

PMI's definition is common in language and similar to that of Ekstedt, Lundin, Soderholm, and Wirdenius (2002), who asserted that a project is a major and significant undertaking or task to be fulfilled within a limited time and with a given set of resources. They more specifically stated: In the case of projects it is correct to say that the notion of *action* is almost part of the very definition of a project, consisting of project task, time

delimitation for the project, allocation of resources (such as that of forming a team), and transition (in terms of project progression). (p. 458)

In traditional financial concepts, the definition of a project is an action or a set of actions that have financial consequences (Kirkegaard, 2000), while Mirrlees (1977) similarly agreed that a project is any scheme, or part of a scheme, for investing resources that can reasonably be analyzed and evaluated as an independent unit. It is agreed that the definition is arbitrary. Almost any project could be broken down into parts for separate consideration. Each of those parts would, and could, therefore, be by definition a project.

To paraphrase V. Martin (2005), project managers normally use the term *project* in quite a precise way, although it can include many different types of activities. It can encompass a small and personal project; for example, planning and holding a special celebration. Or, it can also refer to major construction; for example, a project to build a new hospital, government building, water project, or more. All projects are different, but they do have certain features in common to become considered a project:

The project has a clear purpose that can be achieved in a limited time; it has a clear end when the outcome has been achieved; it is resourced to achieve specific outcomes; it has someone acting as a sponsor or commissioner, who expects the outcomes to be delivered on time, and; it is a one-time activity and would not normally be repeated. V. Martin (2005) believed: As in any activity within an organization, there are constraints which limit the process in various ways. For example, policies and procedures may constrain the ways in which things are done. The outcomes that are required may be defined very precisely and measures may be put in place to ensure that the outcomes conform to the specified requirements. Once a project has been defined, it is possible to estimate the resources that will be needed to achieve the desired outcomes within the desired time. A project is usually expected to achieve outcomes that will be required only once and so projects are not normally

repeated. Even if a pilot project is set up to try out an idea, the outcome from the pilot should achieve what was required without the need to conduct another pilot project (unless different ideas are subsequently to be explored). Working on a project is not like ongoing everyday work processes unless all of your work is focused through project working. (p. 8)

Baume, Martin, and Yorke (2005) articulated similar principles of PMBOK. The similarities are that projects are bound by the constraints of objectives, timescale, context, and budget, and have a clear purpose that can be achieved in a limited time; have a clear end when the outcome has been achieved; are resourced to achieve specific outcomes; have someone acting as a sponsor, who expects the outcomes to be delivered on time; and is a one-time activity that would not normally be repeated. Baume et al. (2005) concluded that, "Although most Project Managers state that their definitions are nonspecific, they accurately described and assumed that if projects meet the above definition, then they will benefit from Project Management processes used in other sectors" (p. 1).

In the case of projects it is correct to say that the concept of action is almost part of the very definition of a project, consisting of project task, time delimitation for the project, allocation of resources (e.g., in the form of a team), and progression. These four fundamental concepts of a project—time, task, team, and transition—appear in fact to be developed in order to differentiate their actions. A commonality to other views of a potential definition of a project is that there is, without doubt, a requirement to move to action in the work of projects and project participants. Projects exist to serve the sole purpose of completing the project, and the participants are there to ensure just that (Ekstedt et al., 2002).

Johnson, Kast, and Rosenzweig (1966) espoused that a project "is a temporary gathering of men and means, directed to realize a particular aim within certain constraints as to time and costs" (p. 3). Thus, a project, no matter the purpose, is aimed at creating some

manner of a new product. The definition of a project would also make explicit the relation between management, activities, and goals.

Sometimes the best way to define the project is to establish the main elements that make up the subprojects within the whole. A precise picture of the *deliverable* of the project will help clarify the nature of the project. Defining the project will reduce the danger of escaping the scope of the *deliverable*. Wise project management teams not only define the project; they also design the system for modifying the project (Reiss, 1998).

To summarize, project management organizations typically defined a project as any endeavor that has a start and an end and generates some measurable result or *deliverable*. Baguley's (2002), Turner's (1996), Nicholas's (2000), and Kerzner's (2000) combined definition, as quoted by Du Plessis (2007), reads: A project is a sequence of connected events, with a definite start and end that [sic] is a unique scope of work targeted towards generating a well-defined outcome, undertaken in an organization to achieve beneficial change. It therefore carries considerable uncertainty and risk that requires the integration of the organization and is subject to constraints of time, cost and quality of performance. (p. 9)

This definition distinguishes a project's purpose, which addresses similar related and repeated sequences of events (which have a start and stop). The basic approach to formal project management starts with defining the project. And, clearly, the above literature agreed that this included outlining the goals; identifying the people who will participate in the work to generate output (known as team members); identifying the people who have a vested interest in the success of the project; determining the ways in which the project's success will be evaluated, including the scope of work involved; and the customer's expectations.

Definition of Project Management

Project management is the process by which a project is brought to a successful conclusion. It should have three dimensions: (a) clear objectives that describe the project scope that are linked to an organization and are quality, cost, and time oriented; (b) a management process inclusive of planning, organizing, implementing, and controlling; and (c) all organizational levels, both strategic and tactical, addressed (Turner, 1996).

Shenhar, Milosevic, Dvir, and Thamhai (2010) explained that project management is simply creating a plan, then sticking to it by time, cost, and scope. This definition is in line with PMI's definition of project management, which is centered on meeting requirements: "The application of knowledge, skills, tools and techniques to project activities to meet project requirements" (PMI, 2007, p. 8). PMI further defined project management as "the art of directing and coordinating human and material resources through the life of a project by using modern management techniques to achieve pre-determined goals of scope, cost, time, quality and participant satisfaction" (p. 8).

The Association for Project Management (2003) defined project management as "the planning, organization, monitoring and control of all aspects of a project and the motivation of all involved to achieve project objectives safely and within agreed time, cost and performance criteria" (p. 5). Similarly, the British Standards Institute (BSI Group, 2002) defined project management as "the planning, monitoring and control of all aspects of a project and the motivation of all those involved to achieve the project objectives on time and to cost, quality and performance" (p. 9).

Dr. J. M. Juran, as acknowledged by Wysocki, Lewis, and Decarlo (2004), Smith (2002), and Reiss (1998), suggested that project management encompassed problems scheduled for solutions and that when a project is in progress it is solving a problem for the organization. He further concluded that it implies some form of control over the planned

process of explicit change and usually involved a combination of people, time scales, costs, and goals, leading to a definition that "Project Management is the management of change" (p. 19).

This concept evolved as an answer to some of the management problems resulting from today's complex systems and the increasingly complex efforts required solving those systems' problems. Project management is periodically rediscovered whenever a member of top management, contemplating a big job in deep trouble, says, *What I need is someone who can take charge of the job at hand, and keep me informed of what is going on.* Thus, project management is the investment of a single person, or group or team of people, of the responsibility for success or failure of a project (Stuckenbruck, 1984).

Project management has been called the *in thing*, yet people have been managing projects for thousands of years. The first project managers built the Pyramids; Stonehenge; the Maya, Aztec, and Inca temples; the Roman roads; the Great Wall of China; and many other marvels (Wysocki et al., 2004). Project management is also viewed as the accidental profession. Projects are inherently difficult, and people typically stumble into them due to management irresponsibility or the inherent difficulty that nobody expected. Project managers tend to believe that if something can go wrong in a project, it will go wrong (Frame, 2006).

A great deal of project management involves avoiding problems. It is about tackling new ground, taking a group of people and trying to achieve some clear objective quickly and efficiently (Reiss, 1998).

Project management is a method and set of techniques based on the accepted management principles of planning, organizing, directing, and controlling. Each of these principles is used in combination to reach a desired end result, on time, within budget, and

according to established specifications. Project management is also a way of thinking that keeps desired results in focus (Gilley & Cunich, 2001).

Stuckenbruck (1984) defined a project as a "one shot, time-limited, goal directed, major undertaking, requiring the commitment of varied skills and resources" (p. 1). It required the creation of a temporary organization within the existing hierarchy of the organization. This organization relied upon formal and informal coordinating mechanisms to integrate the efforts of people drawn from different disciplines who work either full or part time on the project.

Within the project development process, project management is commonly used to complete the technological development and test marketing phases (Maile & Bialik, 1987). Sayles (1992), Adams and Martin (1987), and Kerzner and Thamhai (1987) discussed advantages of project management for development efforts.

The following summarizes their philosophy: (a) Control, whereas project management centralizes responsibility for budgetary cost control, schedules, resource allocation, technical quality, and client, customer, or public relations; (b) Innovativeness, whereas creative problem solving is enhanced by the diversity of the specialization, background, and experience of the participants working toward a common objective; (c) Adaptation, whereas, since the new product/service will eventually be incorporated into the mainstream operations of the organization, the involvement of specialists from different areas helps make the project specifications and functioning consistent with the existing constraints of the organization; and (d) Less Disruption, whereas the normal routines and activities of the organization can continue because the innovation is conducted outside the normal boundaries of the organization by the new temporary operation.

Recent literature on project management has reinforced the growing importance of this system in business performance. Lewis (2001) suggested that project management is now a discipline in its own right, independent from general management. Acknowledging the complexities of the modern business environment, he also emphasized the increasing importance of systems thinking, uncertainty and ambiguity management, and continuous improvement as key competencies in project management.

Gray and Larson (2003) outlined other demands shaping project management, including compression of the product life cycle, global competition and international projects with joint ventures and alliances, the knowledge explosion, corporate downsizing, increased customer focus, the rapid development of Third World and closed economies, and the concurrent management of many small projects.

Lientz and Rea (2001) went further, suggesting that recent trends in quality management and globalization are extending the scope of project management to include quality and performance specifications beyond the expected *deliverables*. In other words, to compete globally, higher expectations to meet client needs are otherwise worked into project planning. As such, Labrosse (2010) suggested that project management is a way to generate consistent results when undertaking new initiatives and a powerful business tool that can transform an organization's ability to perform. Project management can be used throughout the organization to boost personal and collaborative productivity by building a standardized system that embeds best practices into the way projects are managed. Project management is not only the art of completing the project; it is an incredible accountability tool. It offers a living history of the project.

Although project management is often *sold* on an efficiency agenda (Thomas, Delisle, Jugdev, & Buckle, 2005), improvements in project management do not always reduce costs and may increase them in the short run (Bridges, 1989). Most project management

improvements do not yield tangible revenue and cost impacts but more usually are associated with improving less tangible aspects of the project often related to meeting stakeholder expectations around cost, timing, quality, and process. This resulted in a number of different kinds of benefits for organizations, including possibly preparing the organization for future activities (Shenhar, Dvir, Levy, & Maltz, 2004).

Ford and Randolph (1995) concluded that project management "has come to mean a variety of things" and like the matrix organization, "this variety of uses and forms makes it difficult to find consensus on a concise and precise definition" (p. 268). Cleland and King (1986) defined project management as a "combination of human and nonhuman resources pulled together in a 'temporary' organization to achieve a specific purpose" (p. 10). Ford and Randolph (1995) proposed their own definition that blends aspects of a matrix organization with project management. In this respect, the authors defined project management as "cross-functional organizational overlays that create multiple lines of authority and that place people in teams to work on tasks for finite periods of time" (p. 272).

Higher Education and Organizational Change

Higher education institutions are unique structures consisting of loosely-coupled departments that share a complex bureaucratic structure. Academic departments operate in very competitive and contested environments fraught with competing policies and priorities. "The overall picture is of academic institutions made up of basic organizational units whose constituent faculty members have relatively little mutuality of interests" (Becher & Trawler, 2004, p. 197). Studying processes of change in these very complex organizations provides a unique challenge.

The change model used in the modularization initiative in this study was a strategic planning model which is a teleological or technical change model. Teleology is a philosophy based on the belief in or the perception of purposeful development toward an end. Teleological change models include strategic planning, bureaucratic and scientific management, and organizational development strategies. These models are rational and sequential and are attractive to change leaders as they promise influence and control of organizational change. Teleological models emphasize that change is linear and implemented in steps—developing a vision, communicating the vision, providing resources, etc.—while not attending to the interrelationship of strategies and the contingent, organic nature of change (Kezar & Eckel, 2008a).

Blenkin, Edwards, and Kelly (2000) have described six perspectives for studying change, each of which has differing assumptions about the nature of change, higher education institutions as structures, and human agency. The six perspectives are the technological, cultural, micropolitical, biographical, structural, and sociohistorical. Blenkin et al. suggest that each of these perspectives can be used as a lens to foreground particular factors or processes in change engagement depending on whether one is interested in change from a process or an individual level perspective. The limitation of this approach is that it is difficult to gain a sense of the whole picture. The morphogenetic approach used in this study applied to a unique institutional setting combines Blenkin, Edwards, and Kelly's human agency, cultural, structural, and socio-historical perspectives into a more inclusive analytical framework which allows the researcher to gain a greater understanding of the interplay of these factors and processes. The morphogenetic approach will be outlined fully later in this review.

As early as 1947, Lewin constructed a model of change using a metaphor from the physical sciences; change consists of "unfreezing," engaging in change, and "refreezing" (Morgan, 2004; Weick & Quinn, 2002). This model of change is shared by change and transition models from diverse disciplines (Elrod & Tippett, 2005), is echoed by others (Birnbaum, 2003; Curry, 1994; Greenwood, Suddaby, & Hinings, 2008; Hall & Hord, 2007), and is compatible with the morphogenetic approach.

Kezar's (2007) review of selected research on the process of organizational change in institutions of higher education used a typology of six models to organize the research: evolutionary, teleological, life cycle or developmental, dialectical or political, social cognition or learning, and cultural. The evidence of her review suggested that change is best explained through cultural, political, and learning models. However, she also concludes that combined models of change may be best suited to the unique characteristics of higher education institutions that have both professional and administrative functions and cultures. The two combined models of change that she features are Robert Birnbaum's (2003) cybernetic approach and Lueddeke's (2005) constructivist approach.

Birnbaum's cybernetic approach is a systems model approach in which the bureaucratic structures, collegial or academic cultures, and political and power systems all operate simultaneously. Leaders of change are advised to examine change from various perspectives and, through the use of feedback loops that monitor the change implementation, make adjustments in change strategies in response to the feedback. Assessment is a key role of the change leader. The change leader responds to assessments (feedback) by identifying problems, diagnosing mechanisms that enable and support the problem, and implementing an intervention of countering mechanisms to ensure the organization continues to operate effectively.

Lueddeke's (2005) Adaptive-Generative Development Model (AGDM) is grounded in a constructivist tradition with an emphasis on shared governance and participatory leadership. Underpinning the model is the concept of organizational learning that is both adaptive—learning that allows the organization to survive environmental change—and generative. Generative learning is "learning that increases the institution's or individual's capacity to create new solutions to increasingly complex problems" (Lueddeke, 2005, p. 240). Within institutions, adaptive change is focused on adapting existing practices to address calls for strategic change. Generative learning requires thinking systemically and seeking to understand underlying mechanisms of change. Generative learning supports change that is transformative in nature that builds capacity in individuals and the collegial structures and cultures to address the turbulent and unpredictable challenges of globalization, technology, increasing expectations, and diminishing resources.

Lueddeke's model has six components that are sequentially and rationally oriented to prescribe a model for change in higher education. (Appendix B). These elements are: 1) needs analysis; 2) research and development; 3) strategy formation and development; 4) resource support; 5) implementation and dissemination; and 6) evaluation. One strength of Lueddeke's model is its emphasis on learning and engagement in strategic innovation that is evidence-based rather than ad hoc. Second, the emphasis on the examination of change through many frames or lenses leads to multidimensional or systemic thinking.

In his description of criteria for a realistic framework or model for change, Lueddeke describes elements that the model would need to encompass. These include: 1) integration of experiential learning including reflection and reconceptualization; 2) collegial and collaborative decision-making; 3) capacity to adapt existing practice where appropriate; 4) capacity development for generative, organic, and recursive approaches to change; 5) ensuring credibility of change efforts with the academic community of the university; 6)

building a culture and capacity to function in ambivalent and chaotic environments; and 7) provision of verification and feedback loops through evaluation and action research.

Lueddeke's criteria for a realistic model for change are helpful and support the challenges of change leaders at all levels of the university hierarchy. However, his example of the AGD model in use for the development of institutional guidelines for effective teaching and learning emphasized the policy development aspect of strategic change and described limited implementation of the change in departments. In his example, the implementation strategy was limited to solicitation of feedback on the document before proceeding to the final stages of policy ratification. This example leaves issues of effectiveness of implementation of teaching and learning practices to individual departments without support to exist in addressing structural or cultural mechanisms that may be in opposition to the policy.

Leading Change

Lueddeke's model for change incorporates elements that require a collaborative, constructivist leadership style. In addition to William Tierney, whose work I will discuss in a subsequent section, the work of Ronald Heifetz provides insight into leading change.

Ronald Heifetz teaches at Harvard University's John F. Kennedy School of Government. Ten years of interaction with practitioner students allowed Heifetz to develop, test, and refine a set of ideas about leadership which he explicates in his book *Leadership Without Easy Answers* (2000). He recognizes that leaders operate in highly complex systems and that often change is simple adaptation of current processes to accommodate new circumstances.

Lueddeke, delineates two kinds of learning in his model—adaptive and generative. Heifetz similarly recognizes that the problems confronting leaders fall into two categories—the relatively simple technical problems are those for which we have answers—ones that require adaptive learning—and more complex challenges that require generative learning. Complex challenges are messy and painful, requiring people to change their values, their behavior, and their attitudes and learn new ways of doing things. Heifetz believes that leadership can come from all levels of an organization. Authority, on the other hand, is a characteristic endowed upon managers that increases as one moves up the hierarchy of an organization.

Leaders with authority are restrained from performing generative leadership functions by the expectation of their followers that they will control conflict—protect the individuals that report to them from confusion and conflict. In addition to other restraints departmental leaders experience in post-secondary institutions, the expectation that department heads will protect their departmental faculty from conflict and disruption reduces their ability to engage their departmental members with problems that require generative learning. Heifetz agrees with Lueddeke, that the effective solution of problems through generative learning involves conflict and confusion. It is the effective engagement with these difficult problems that brings about meaningful change.

Heifetz posits that leadership is an activity that engages communities with well-structured questions, rather than offering definitive answers, and challenging the organization to work through its issues to take advantage of opportunities. Leadership is facilitating generative learning which often brings with it confusion as a normal, expected component of the problem-solving process. Heifetz encourages leaders to use perspective to determine the appropriate action. Heifetz speaks of the need for leaders to "get on the balcony" and to look

down at the activity occurring in their organization to gain detached understanding of the pattern(s) of the change in the midst of process of change.

Departmental Leadership and Change

There is a substantial body of literature on departmental leadership of change. In this study, we selected informants that are departmental leaders who were tasked with implementing a strategic change initiative. The reason for selecting departmental leaders was that they occupy a unique space in the organizational hierarchy and would therefore be able to provide insights that otherwise would not be available (Murray & Murray, 2002; Edwards, 2006). Departmental leaders at universities are tasked with implementing decisions to which they have had little or no input. They are the communication channel—often interpreting the decisions of senior administration for faculty. They supervise faculty and are tasked with ensuring that faculty fulfill all required job functions while they too fulfill a faculty role. University department heads belong to the same faculty association as the instructors that they supervise, resulting in professional tensions when faculty members are asked to fulfill a senior management mandate. Because of this study's focus, this review of the change leadership literature focuses on the unique role of departmental leaders with limited reference to the substantial body of literature about leading change.

"Mid-level managers [department chairs] in the... university are often burdened with tensions resulting from their dual roles as administrators and faculty members" (Yamasaki, 2002, p. 67). The duality of their roles is due to structural and cultural mechanisms operating within the institutions. Managers experience the pressure of their divided loyalties when implementing strategic change that is resisted by faculty—of which they are a part (Mutch, 2004; Trawler, 2004). As well, departmental managers are often facilitators of learning of the faculty in their department and, as such, help to facilitate "cognitive shifts" (Isabella, 1996, p.

9) of faculty during departmental change efforts. Julius, Baldrige, and Pfeffer noted in their 2005 study of Canadian academic leaders that the willingness to influence others was a determinant of administrative effectiveness in making change occur. Often, mid-level managers feel powerless to implement the multiple and often competing priorities demanded of them and are caught between the demands of their superiors and their dependence on their departmental faculty to carry out the directive (Julius, Baldrige, & Pfeffer, 2005). Additionally, ineffective departmental leadership has been characterized as one of the major barriers to organizational change (Hoag, Ritschard, & Cooper, 2008).

According to Weick (1998, 2004), sense-making in institutions appears to occur at the level of the department which may relate to the "communication conduit" function of the program head. Managers interpret information (Mutch, 2004) that is being presented through them from upper management to the population of the organization. Goodrick's and Salancik's analysis of medical services shows that the institutional framework within which choices are made constrains managers to act in ways that make sense and are appropriate within that framework...Managers, like other actors, must rationalize their actions within some institutional framework. Such frameworks not only give a basis to the actor making decisions, but also provide a basis for the involvement of those who must participate in implementing the decision— their academic staff. (1999, p. 18)

Levin (2004) found that sensemaking of organizational change varied by group - administration, faculty, union members, change agents, etc. Members of the universities he studied told stories of management interpreting external environments and choosing actions designed to fulfill organizational goals. Gleeson and Shain (2002) in their study of the implementation of managerialism into further education programs in Britain found that a crucial role of middle managers was mediating change.

Bushher (2002), in his reading of the literature, cites Glover as determining that dimensions of departmental leadership include translating what they understand to be the perspectives and policies of senior administration, encouraging faculty to incorporate these into classroom practice, and developing a collective identity amongst faculty. Weick (1998) refers to this as "loose coupling"—a term from systems literature that is used to describe the semi-autonomous nature of departments that are left to their own devices and as such develop their own processes, identities, and cultures. This semi-autonomous nature of departments can result in a gap between the desired and actual outcomes of a strategic change initiative.

As well, Bushher (supported by Fullan, 2004) identifies the key role that department heads make as a communication portal between the department and the rest of the university. As communication and strategic policy "translators" (McArthur, 2008; Montez, Wolverton, & Gmelch, (2009), the department heads are key players in the construction of a departmental change reality. The very fact that departments vary in size, configuration, status, resource power, and staff expertise makes the job of each head of department contextually different from that experienced by other heads of department either within the same school, or in other schools. (Bushher, 2002)

Contexts vary (Stark, Briggs, & Rowland-Poplowski, 2005); webs of influence vary; communication patterns vary; cultures vary (Becher & Trawler, 2004); constructed realities vary; thus departmental discourse varies. There are indications that departmental leaders are often inadequately prepared for their role in helping others to engage with change (Brown, Martinez, & Daniel, 2005; Hilosky & Watwood, 2003; Hoff, 2005, Jones & Holdaway, 2001; Smith & Stewart, 2005; Spangler, 2005) and are unlikely to pursue professional development after they begin their job as leader (Stark, 2005). Additionally, they often do not receive appropriate feedback about their performance - most importantly departmental faculty's

perception of the department head's performance – so that they can engage in reflexivity (Archer, in press) and make self-corrections (Heck, Johnsrud, & Rosser, 2006).

Alvesson and Sveningsson in their study of managers in an international knowledge-intensive research and development company found that managers "incoherently move between different positions on leadership" (2006, p. 961) indicating that we do not yet clearly understand the experience of managers called to be leaders, yet tasked with managerial and administrative duties. Confusion on the part of departmental leaders about the nature of leadership needs to be addressed through the recognition of multiple definitions and beliefs about leadership (Calabrese & Shoho, 2003).

Descriptions of characteristics of leadership often emphasize the characteristics of the charismatic, transformative leader who inspires followers to engage in self-sacrifice and high levels of performance (Pielstick, 2001). Definitions of leadership are evolving in higher education (Eddy & VanDerLinden, 2009) to include leadership throughout the organization rather than strictly positional. Forms of leadership such as team leadership or servant leadership that places less emphasis on the classic "hero" leader are becoming more prevalent in the university sector. Many universities are now moving to participative decision-making and leadership models to become more inclusive of university stakeholders in the leadership process (Kezar, 2004). In participative leadership, multiple ways of understanding leadership must be recognized not only because of the diversity of institutional members but also because such diversity strengthens a university's ability to adapt and meet the dynamic challenges of higher education's current context. In the next section, I review selected literature on organizational culture and change.

Organizational Culture and Change

Interwoven with the literature on leadership is a body of literature that incorporates the concept of culture in order to examine leadership, change or innovation, and organizational context (McPhail, 2011; Tierney, 1995, 2003, 2005). The form of institutional change examined in this research is strategic change - that is change that is broad in scope, initiated at the "top," and uses the techno-rational strategies of strategic planning (Hord, 1998).

William Tierney has written a great deal about institutional change and leadership in the higher education context with reference to culture (Tierney, 1995, 2003, 2005). Tierney's research in four-year universities and universities in the American system uses the concept of culture to better understand the processes, systems, and relationships in the institution. Consideration of organizational culture helps institutions create appropriate policies that contribute to the successful socialization of new faculty into their programs and institutions. Tierney's research also shows how the introduction of new faculty re-creates the existing culture of the academy (Tierney, 2003).

Tierney (1995) makes the link between culture and individual construction of reality as he notes in attempts to understand organizational culture that "culture is an act of interpretation, what each person observes and interprets varies" (p. 76). That is, individuals focus on different components of reality in any given interaction and then interpret what they perceive through their own sets of beliefs, values, experiences, and perspectives to make sense of what they have observed. The individual reveals to the researcher his or her view of institutional or departmental culture which is again reinterpreted by the researcher. As such, any understanding of culture is a dialectical process of negotiated meaning between the researcher and the informant.

In his study of curricular reform at two American universities, Tierney (1995) foregrounded curriculum—what counts for knowledge—as a focus of a cultural clash between groups of faculty who come from different subcultures within a single institution. He concludes that, within an institution, departmental cultural differences should not be ameliorated or ignored but rather confronted to create understanding. As such, leadership is the facilitation of dialogue amongst the university members to promote understanding of the values and goals of the university and support the diversity that is inherent in the institution as collectivities of individuals (1992).

Becher and Trowler (2004) further attribute cultural differences to academic disciplines which are commonly associated with departments. They argue that the way that faculty engage with their subject matter and the social practices, attitudes, and values of that engagement contribute to the culture of the department. Additionally, different disciplines attract different personality types (Kolb, 1987; Myers & Myers, 2001), and the collectivity of these individuals also contributes to departmental culture. As individual members come and go, the culture is re-created (Tierney, 2003), but the cultural components stemming from the academic discipline provide coherence and stability to the department.

Kezar and Eckel conducted an analysis of comprehensive change in higher education institutions (2008a, 2008b) to determine if there were strategies that were core to facilitating transformative change. Five core strategies were found: senior administration support; collaborative and distributed leadership; a robust and flexible implementation plan; numerous opportunities for staff development; and visible action including feedback on results. Further analysis determined that strategies were best selected based on the culture of the institution undergoing strategic change (2005a). Their research showed that different institutional cultures responded differently to change strategies and that the strategies should be carefully

selected to align with organizational culture for the best potential success of the strategic change.

Kezar and Eckel further determined that what made the five strategies core to transformative change was the facilitation of opportunities for staff to make sense of the changes that were occurring from individuals making meaning through staff development to campus-wide sensemaking through campus retreats (2008b). The opportunity for dialogue and engagement was a "superordinate" strategy. The need for institutional members to engage in dialogue and sensemaking is embedded in Lueddeke's AGD model of change and Tierney and Heifetz's leadership frameworks.

A further layer to the organizational culture (or context) is the layer of intersecting webs of power and influence (Coopey, 1996; Wallace & Hall, 1997). The web of influence is foregrounded when we examine organizations from a micropolitical perspective (Marshall & Scribner, 1997). As people compete for valued things—resources, space, prestige—influence and application of power will result in the activities of individuals. Individuals use power through activation of structural and cultural mechanisms to achieve their aims (Fairclough, 2008; Archer, 1995, 1996). Phillips and Brown (1996) used a method of "critical hermeneutics" to analyze text to examine the influence of power on culture through communication. They have illustrated the relationship between culture and power: "by carefully managing communication, and therefore the process of cultural production, powerful individuals and groups can legitimate their positions and institute a form of social control that removes the need to exercise control directly" (p. 13).

When change is implemented, the ambiguity of the outcomes of the change process provides opportunity for shifts in power (Levin, 2004; Lindle, 2005; Poole, 2004). Power is not "static and possessed, but circulates within and between us" (Inglis, 2003). Power is mediated by the interrelations between the various structures activated in a particular context. Change creates

opportunity for groups and individuals to advance their agendas. When actors, individually or in groups, choose to honor or marginalize new information about teaching and learning, they are acting politically (Corbett, 1994; Sissel, 2004). West (2002) exhorts leaders to be aware of micropolitical activity and to use this awareness to enhance their effectiveness as leaders.

Weis (1988) in her study of a black urban community university concluded that the activities and interests of both faculty and students created the culture of the university that led to unintended institutional outcomes. Rhoades and Slaughter's (1994) study of the negotiation of policy on technology transfer is an example of the contested terrain of organizational change as groups use different myths to support arguments for their position. The researchers conclude that further examination of the contested terrain of professional work is required. This conclusion is supported by other studies of organizations whose constituents are professionals; "in professional bureaucracies, change in organizational core processes occurs only when professionals themselves agree to undergo change" (Zell, 2006, p. 74).

The study of the implementation of technology in educational institutions and other professional organizations has found that change associated with technology is entangled in power relations (Constantinidies & Barrett, 2009). Additionally, the study of technology and change brings new problems and issues forward for study as the introduction of information and communication technologies into higher education often involves intentionally broad sweeping change that triggers other, often unanticipated, change (Barrett, Grant & Wailes, 2009). Technology has a material existence (computers and networks) as well as a social existence made up of the understanding and usage of the technology in the work of individuals in the organization. Implementation of technology as a strategic, top-down change has often ignored the "social and cultural understandings about the organization of work" (Bridgman & Willmott, 2009, p. 113). Indeed, there is an increasing call to researchers

to focus on both the structural and social characteristics surrounding technology as it is implemented into complex and diverse organizations and the resultant effect on the change process (Orlikowski, 1998; Orlikowski & Yates, 2011; Schultze & Orlikowski, 2007; Wagner & Newell, 2009).

Chapter Summary

The literature on change and leading change is vast, and in the preceding section of this literature review, we focused on components of the literature that were useful to this study.

The change in higher education literature furthered my understanding of the nature of the departmental structure in higher education institutions as loosely coupled collectivities with specific identities and cultures. This knowledge led me to select departments with widely varying identities to broaden understanding of change in the diverse cultures of the institution in this study. The work of previous researchers to categorize change models based on assumptions of change provided me with an understanding of the need to dig deeply into the ontology underpinning this study and to leverage the power of critical realism to provide new insights into the change process.

Kezar's (2007) identification of combination models as facilitating the study of change in higher education resonates with my experience. These combination models share a systemic view of change with feedback loops that support learning and evidence-based decision-making. The cybernetic model (Birnbaum, 2003) emphasizes adaptability and flexibility in the change process—a key feature of the strategic change in this study. Lueddeke's (2005) Adaptive-Generative Development model is based on key elements that are a very helpful set of guiding principles for any change model in higher education. Although Lueddeke's

example of the AGD model in use did not illustrate the challenges of departmental implementation, his work informs the implications of this study.

In alignment with the key elements of Lueddeke's AGD model, the following section focuses on Heifetz's (2000) work on leading change. His work led me to the insight that some managerial mechanisms counteract the mechanisms for leading change, a key example of which is the departmental members' expectation that department heads will control conflict. Yet this study illustrates that change that addresses complex issues has conflict, confusion, and tensions at its core.

Departmental leaders have many conflicting mechanisms at play inherent in their dual role as managers and faculty. The literature about departmental leaders and change was selected to inform the study regarding the ambiguous nature of the role of departmental managers. Departmental leaders reside at the interface between organizational bureaucracy and professional collegiality and are expected to lead the implementation of top-down strategic change in their departments. This is a challenge as department heads struggle with role ambiguity and competing definitions and assumptions about the nature of leadership (Paradis, 2011). This review clarifies that departmental leaders often lack clear understanding of the nature of leadership and the interplay of mechanisms of strategic change. As participative leadership models are incorporated into university structures, departmental leaders need knowledge and skills to effectively facilitate change, including an understanding of the relationship between organizational culture and change. This literature gave us an understanding of the challenges of the participants in this study and sensitized me to the mechanisms that may be at work in the study.

Tierney's (1995, 2002, 2005) work on the effects of institutional culture on organization-wide change calls for efforts to confront cultural mechanisms to create understanding and conceptualizes the role of leadership as leading the conversations amongst

university members for that purpose. Becher and Trowler (2004) highlight the strong departmental cultures in higher education institutions and their research indicates that such cultures are related to discipline-specific values and attitudes. This insight led me to investigate departmental members' previous career experience as a potential mechanism in this study.

Kezar and Eckel's (2008a, 2008b) study found that change strategies are most effective when culture is considered, and that sensemaking is a pervasive strategy for leading change. This finding is congruent with the findings of Heifetz (2000) and Tierney (2005). These findings helped shape the discussion in Chapter VII of this study. The literature on the effects of power in organizational change sensitized me to issues of power in LEC. Technology is recognized as having powerful effects on change implementations. Although technology is not foregrounded in this study, the literature on technology and strategic change facilitated identification of mechanisms related to the software application used in this study's change initiative.

The literature on organizational change is broad and far-reaching. Many ontologies, frameworks, lenses, and metaphors have been used to examine change in the effort to better understand the processes and influencers of organizational change. These studies originate in various ontologies and, although they are helpful in beginning to understand the effect of culture on organizational change, they do not examine in depth the interplay between and among culture, structure, and agency (Archer, 1995, 1996a, 1996b; Domingues, 2003; Fuchs, 2004; Hays, 1997; Willmott, 2002).

CHAPTER III: METHODOLOGY

Introduction

Realist ontology is a philosophy of science and, as such, does not prescribe specific research methodologies but does lead to particular basic premises such as complex causal mechanisms as influencing behavior (Sayer, 1995). The use of such premises requires rich data and an intensive research design. As a result, this study uses qualitative methodology, relying on interviews, focus group discussions, and reflective writing to understand the structural, cultural, and agential mechanisms that resulted in individuals' engagement with strategic change. Educational researchers need to examine: real structural properties...; interpretations of those structures by relevant social actors; real relations between different structures...; the intentions of the players in the game...; the unintended consequences of actions; the subsequent effect of those intended and unintended actions on structural properties; and the degrees of structural influence and agential freedom for each human interaction." (Scott, 2003, p. 3)

Selection of the academic departments examined in this study was based on empirical evidence of the outcomes of their engagement with the modularization initiative, sorting the departments into high, moderate, and low levels of engagement.

This chapter outlines the research design and methodology used for this study and their alignment with critical realist ontology. In this chapter, I describe the process of gaining permission to do the study in the cooperating university and outline the selection of the participants. I then overview the analytic steps, address trustworthiness, and discuss ethical considerations.

The Case Method and Critical Realist Ontology

Since this study's focus is on the role project management of strategic change in higher education and the interplay between culture, structure, and agency, the case study approach was selected. A case study focuses on the particularity and complexity of a single case (Stake, 2003) to understand an activity and its significance. In this study, the case consists of a complexity of interpenetrating, overlapping, and interacting structures and mechanisms (Joseph, 2006). Because of this complexity, rich data are required to understand how different powers emerge or are activated by behaviors of actors in the milieu. Ackroyd (2007) contends that the clarification of the nature of a mechanism must be done in a context. In this study, "variables are so embedded in the situation as to be impossible to identify ahead of time; [therefore], the case study is ... the best choice [of research design]" (Merriam, 2000, p. 32).

Further, for research based on the critical realist ontology, causal explanations are required to provide mechanisms that arise out of actors' internal dispositions, meanings, intentions, desires, and beliefs (Ekstrom, 1995). Only case study research can begin to provide the richness required to uncover such an explanation. Critical realism recognizes the intentionality of individuals as real; in other words, people act on their intentions based on their own perspective and reasoning. As such, reasons may be causes and understanding individuals' thinking requires qualitative methods (Ackroyd, 2007).

In this study, the interaction of causal powers in different departmental contexts produced varying degrees and forms of engagement with modularization. To understand the variability by department, this research was conducted in several academic departments to define the contexts—cultures, structures, institutional logics of the departments—and to identify the causal mechanisms and their interactions. The strategy of investigating three departments at the Greek University is the use of multiple embedded "mini" cases. Large

constituents of the context are controlled in such an approach allowing for a more in-depth understanding of the deep underlying mechanisms of the phenomenon under examination (Harrison & Easton, 2007).

This case is also bounded by the timeframe in which the strategic change implementation took place as recalled by the participants. Archer's morphogenetic approach places a high degree of emphasis on the temporality of individuals' understandings, perceptions, and knowledge. The interviews were conducted over a five-month period followed by a focus group six months later. Participants could only report on their experience up to that time and any reflexive insights that they might have had up to that date. More insights could have possibly been generated if further data had been gathered at a later stage. Such data could uncover any morphogenesis of departmental cultures and/or institutional structures resulting from the modularization initiative.

Selection of participants

Participants in this study were selected purposively. Individuals were chosen to represent academic departments that demonstrated high, low, and moderate engagement based on university reports of the percentage of the courses in a program published for student use at the end of the strategic implementation and the quality of the modules produced. The targeting of departments with differing engagement rates provided "mini" cases that would allow for analytical comparison across departments.

Selection of the departments was based on a count of the percentage of courses published in a modularized format. Further, departmental engagement was inferred by the *quality* of the modules produced. That is, compliance to a minimal standard could result in a simple count of all courses being modularized and published for students but would not reveal the whole story. Another program might also publish all of their courses with

enhancements such as content and multi-media indicating a higher degree of departmental engagement. Quality checks were reported to deans of departments by the modularization team, and those reports were used in this study.

Because departmental leaders are familiar with both the causal mechanisms invoked from upper management and the department, they are in a unique position to provide insight. Criteria for selection into the study included holding a leadership role; membership in a selected department; openness to participation in the research; and the potential for a positive, productive relationship with me as the researcher. I selected departmental leaders as informants because they occupy a unique space in the organization. That is, they managed their departmental activity in modularization and were directly engaged with the modularization initiative as teachers and leaders. Inviting department heads to engage in this study provided me with the opportunity to study the effects of project management and strategic change implementation on leaders of change and offered departmental leaders the opportunity to reflect on and learn from their experiences in the modularization initiative.

Eight participants represented three (high, moderate, and low engagement) departments in this study. Two individuals represented six programs in the "moderate engagement" Department of Health Programs; two individuals represented seven programs in the "high engagement" Hospitality department, and four individuals represented seven programs from the "low engagement" Business department. Eight participants were selected so that each department was represented by a minimum of six programs (or most of the department's programs) (Table 1). Although two further participants were interviewed representing two moderate and low engagement departments, these data were not included because they brought nothing new to the analysis. Also, the two participants did not fully participate in all the data-gathering activities of this study.

Table 1: Research Study Participants

Level of Engagement	Number of Participants	Department	Number of Programs Represented
High	Two	Hospitality Programs	Seven
Moderate	Two	Health Programs	Six
Low	Four	Business Programs	Seven

Research design

This study has an intensive research design (Sayer, 1995) requiring examination of a large number of potential constituents of departmental causal configurations to uncover those essential pieces that could describe and explain complex social actions during strategic change implementation (Moren and Blom, 2006). A critical realist study has the goal of identifying mechanisms and describing how they are manifested in events (Danermark, 2005). "Intensive design" studies causal groups (in this case, academic departments) through interactive interviews, ethnography, and qualitative analysis that results in a causal explanation of events that may not be representative of similar cases (Danermark, 2005).

Although case study methodology is well-suited to critical realist ontology, it does not claim any particular methods for data collection or analysis although interviews, documents, and personal observations are common (Merriam, 1991, 2000). The design of this research included interviews, a focus group, reflective writing of participants, and the use of public documentation and records. Public documents were used to determine engagement of departments, to understand the communication of timelines and standards during the initiative, and to confirm aspects of the initiative reported by the participants.

Interviews with each of the eight participants were carried out over two sessions, no more than one month apart, that were each approximately ninety minutes long. Two sessions were used to minimize fatigue that could potentially occur with one very long interview. Although it was not anticipated that participants would reflect on their responses between interviews, such reflections did indeed occur, resulting in richer data. The interviews were conducted using a semi-structured format (Pawson, 1999) that began by focusing on the departmental context and then moving through a series of questions (See Appendix A for Interview Guide). Participants were given a great deal of latitude in where they wished to lead the discussion after initial prompting by a question. This approach was chosen as their perspectives and insights were critical pieces of data, and their articulation could be evoked more easily this way. I used an iterative strategy such that both the participant and I explored the fullest answer to the questions posed (Connell, Lynch, & Waring, 2004). This strategy includes rephrasing and reconstructing participants' comments to determine if an accurate understanding of the comment(s) has been received. This strategy allowed me to explore basic assumptions that interviewees held about the university in general (Connell, Lynch, & Waring, 2004) and their understanding of the mechanisms that caused their departmental colleagues to engage with the modularization initiative the way they did. This strategy also gave me the opportunity to enter into the discussion of mechanisms in various ways so as to better understand participants' interpretations.

Interviews were taped, transcribed verbatim, and edited only for repetitions, and the text of transcription was returned to the individual participants for validation and extension of their responses. All participants returned their transcriptions promptly with only minor corrections. The validated transcripts each comprised an average of twenty-four thousand words. After all participants had validated any corrections that they requested on their

individual data, initial analysis focused on grouping and summarizing the data into broad themes and categories.

The results of this initial analysis were used to plan for the focus group and to design a pair of documents which were then administered at the focus group event. The first document was a Reflective Writing Guide which explored certain components that had come out of the interview data focusing on the current state of the modularization initiative, the participants' predictions of future work with the initiative, causal mechanisms and their interaction during the modularization initiative, barriers and catalysts to engagement with the initiative their department had experienced during the initiative, and recommendations to senior staff regarding the change implementation. The second document was a Validation Document which captured specific quotes that illustrated thematic barriers and catalysts to change that had emerged from the initial analysis of the interview data. Participants were asked to indicate whether particular themes were also operating in their context and, if so, how and when did they manifest themselves. For example, participants were asked to validate whether their department experienced or used "recognition and celebration of progress" strategies and how that experience might have affected departmental members' perception of the strategic change initiative. The focus group comprised participants previously interviewed for this study (the eight departmental leaders). All discussions from the focus group were transcribed and used as data in the analysis.

During the focus group event, participants entered into writing and dialogue about their engagement with change and their experiences of leading change. In addition to encouraging participants' reflections on their past experience, I posed questions about the future of the modularization initiative. Gathering information about participants' views of the future could potentially shed further light on the mechanisms at work in their context. The strategy of querying participants' visions of the future is a form of triangulation as it checks

whether the sense participants have made of the past, what they say about the present, and their predictions of the future are consistent. This is in alignment with the morphogenetic approach.

All components of the research described were piloted with a select group of individuals to ensure that the best possible questions and methodology were used in the final study. Three individuals were used in piloting the research components—two in the initial pilot and a third in a final pilot to ensure the research components were polished. Since the research components did not change after the third individual engaged in the pilot, the data provided by this individual was included in the study.

Data analysis-process

Data analysis and interpretation in a qualitative case study is a dialogic, iterative process. As such, data analysis was conducted in phases. Table 2 summarizes the process taken and a fuller explanation follows.

Table 2: Data Analysis Summary

Process Step	Output of Analysis
Initial Thematic Analysis of Interview Data	Broad themes including identification of causal powers as experienced as barriers and catalysts
Analysis of Validation Document	Thematic contextual elements and mechanisms experienced similarly or differently across departments as catalysts and barriers
Analysis of Focus Group Transcript	Evidence of contextual elements (CE), social structure mechanisms (SSM), and cultural system mechanisms (CSM)
Reread Interview Data	Evidence of the thematic mechanisms Unique departmental elements and mechanisms

1. Initial data analysis was done upon completion of the interviews to determine underlying themes. Themes were captured in a table and representative quotes from the data were extracted and compiled in a second table for more detailed analysis. Themes were generated based on potential mechanisms that were identified prior to the interviews as well as those emerging from the data. Themes identified included leaders and their skill sets, resources, communication patterns, time available for tasks, training, teaching and learning institutional logics, individual instructor's agency, departmental culture, and institutional structures. During this initial phase of the analysis, each transcript was read at least three times. As indicated above, the data informed the planning of the focus group discussions and the documents used during the focus group event.
2. The focus group Validation Document was analyzed for structural and cultural thematic mechanisms that were experienced *differently* across departments. These mechanisms became the focus of further analysis. Those mechanisms that had full agreement by all participants as to their effect on engagement with change were considered to be mechanisms that operated similarly in all contexts and, as such, were not considered to have explanatory power regarding departmental change engagement (Moren & Blom, 2006). Thus, thematic mechanisms that did not appear to have differing effects across departments' data were not considered further. This setting aside of mechanisms experienced as barriers and catalysts similarly across departments "intentionally move out of focus all elements that are deemed inessential to the problem at hand" (Hedstrom, 2008, p. 38).
3. Modified summary Context Mechanism Outcome (Pawson, 1999) tables that present the relationship between project management and Structural Structure Mechanisms (SSM), were constructed for each of the three departments based on the thematic mechanisms identified in the previous phase. Evidence from the focus group data was then inserted to describe each department's experience with the identified mechanisms. Subsequently, each of

the interview transcripts was read a minimum of three times to find evidence of the thematic mechanisms identified from the focus group data and any additional unique departmental mechanisms that had not yet been identified.

4. Both the thematic and unique contextual elements and mechanisms were used to create Causal Configurations for each of department.

5. CE, SSM, and CSM data were then aligned into causal timelines to facilitate deeper understanding of the emergence of elements and mechanisms and their interplay to affect the departmental outcome.

As I analyzed the texts—both the data from the interviews and focus group—I used what Alvesson (2006) terms "discursive pragmatism." This attitude towards textual analysis acknowledges the inability of text to mirror some form of objective reality while allowing interpretations beyond the very strict adherence to analysis of the text only. "Discursive pragmatism acknowledges, given the plasticities of language, multiplicities of meaning and complexities of social practices, but still aims to say something about broader patterns in the interface between language use and discourse-constituted patterns of meaning" (p. 76). This is important because as a realist researcher, I am interested in more than the experiences and beliefs of the participants. Through this research, I sought to understand the socially constructed causal mechanisms that often operate outside of the conscious awareness of the participants. These mechanisms "are to some extent known by participants... and partially (and often implicitly) acknowledged in reflective commentary on their circumstances" (Akroyd, 2007, p. 154). Throughout all interactions with participants and the transcripts of the data, I sought to uncover such mechanisms.

Research based on realist ontology seeks to understand reality through identifying causal mechanisms and exploring their interactional relationships to bring about an outcome within a context (Pawson, 1999). Because of the complexity and depth of causal mechanisms,

they cannot be simply observed by a researcher of informants; rather, they are inferred using "retroduction." Induction and deduction are forms of inference that are concerned about moving from the particular to the general and vice versa. Retroduction involves moving from the specific outcome that is of interest (in this study, engagement with strategic change) to a "conception of a different kind of thing (power, mechanism) that could have generated the given phenomenon" (Lawson, 2007, p. 236). I used "retroductive thinking" to tease out variations in context between the departments as well as causal powers and mechanisms from the data.

Additionally, I deliberately applied alternative lenses as I sought evidence of contextual nuances, institutional logics or cultural ideations, and structural mechanisms in the data. Using the rich research literature based on the realist ontology, I used metaphor to aid in gaining insights into the participants' experience. For example, Moren and Blom's (2006) research exploring mechanisms at play in interventions in social work practice provided a metaphor for exploring mechanisms in a strategic change initiative in higher education practice.

The use of "mini" cases—examining three departmental contexts—allowed me to use the "contrastive approach" (Taylor & Bain, 2007) and tease out structural and cultural mechanisms and institutional logics by contrasting and comparing one department with another. By asking, "What is different in the departmental culture and context of the business programs as contrasted with the health or hospitality programs?", I was able to more fully understand both what mechanisms were activated and the relationships between them. Moren and Blom (2006) support investigations of specific cases that when analyzed collectively could inform theoretical models that reach beyond a single case.

Trustworthiness

In qualitative realist research, an alternative term for "validity" is trustworthiness (Guba, 1984). In a qualitative study, the researcher seeks to understand the subjective and multiple truths of the participants. As such, external validity is not an issue because the researcher does not seek data to form generalizations; rather, the researcher seeks cases where the understanding resulting from the study is transferable to other cases. Similarly, internal validity becomes an issue of credibility: the degree to which the researcher's interpretations mirror the participants' reality. Other components to address trustworthiness include dependability and confirmability. These are addressed in the following section.

Credibility

Credibility is the degree to which the researcher's interpretations of the data are isomorphic to the perceptions of the participants. Data were validated with participants at multiple steps throughout the study: upon completion of the transcription of the interviews, during the focus group through discussion and writing, and through participants contrasting their experiences with those of others through the Validation Document used in the focus group. Throughout the time of this research, I sought "out and interacted with other professionals who are able and willing to perform the debriefing function" (Guba, 1984, p. 84). My perceptions and insights were vetted with professionals in the research site who are not directly involved in the research but have familiarity with the context of the research.

Transferability

In case study research, "particularity competes with the search for generalizability" (Stake, 2003, p. 439) and the transferability of learning from one context to another. The concept of generalization in realism "differs radically from that espoused by positivists"

(Harrison & Easton, 2007, p. 195) in that the identification of even one "deep" explanation in one instance can contribute to theory. I paraphrase Erickson as quoted in Merriam (1991, p. 176): "Each instance of a [change] is seen as its own unique [change], which nonetheless displays universal properties of [change]. These properties are manifested in the concrete, however, not in the abstract." So, although this research was a particular case of one strategic implementation of change in a single university, my findings display structural, cultural, and agential mechanisms of change that have the potential to assist leaders of change in other contexts but are most applicable to strategic change in higher education institutions.

Also, because this research consists of embedded "mini" cases in the examination of three different academic departments, a form of cross case analysis (Yin, 1984) occurred as the experiences of the departments were contrasted with each other. This provides readers of this research the opportunity to better find parallels in their own organizations and support insights into applicability to their contexts. Utilization value is a component of transferability (Smaling, 2006).

Dependability

In this study, dependability was addressed through the organization of the data selection to create and maintain an audit trail throughout the process. The data analysis process was validated with another critical realist researcher to confirm that the process of creating causal configurations for each of the departments in this study was an appropriate process. All data in the analysis can be tracked to the individual participant who reported the item.

Confirmability

Confirmability is the extent to which the interpretations of the data are free of researcher bias. Thus, it is important to consider the role of the researcher and any potential bias or influence the researcher brings to bear on the study. I was a prominent individual in the implementation of the strategic change initiative that bounds this study. I consciously controlled my personal perspective on the value of the strategic change initiative and tried to set it aside as I investigated the varying levels of differing engagement with its implementation by departments at the university. "One barrier to credible qualitative findings stem from the suspicion that the analyst has shaped findings according to predispositions and biases" (Patton, 2005, p. 553). Throughout this research, I have attempted to make my biases and assumptions transparent by identifying them and addressing them appropriately. I made every effort to validate my own perceptions with other informed professionals who were participants in the strategic change initiative to ensure that I was not "coloring" the data.

Further, in all interactions with participants, I deliberately adopted the stance of needing to understand the participants' experience, not judge it; I took the stance of a learner about change, not an evaluator of participants' change activities. This enhanced the likelihood that participants would freely share their experiences. Further, although I was tasked with leading the implementation of the modularization initiative, they did not see me as the originator of the change as participants recognized that the activity was clearly owned by the vice-president academic of the university. "The only thing I ever heard, it [the modularization activity] was the academic vice-president's brainchild" (Participant). Thus, together the interviewee and I could seek to understand the nature of the implementation.

Triangulation

I have engaged in several forms of triangulation in this study to enhance its trustworthiness. I gathered data from participants through interviews, focus group discussions, validation writing, and reflective writing. With four sources of participant data, I was able to "check out the consistency of findings generated by different data collection methods" (Patton, 2005, p. 556).

Using participant validation checks throughout the data gathering, analysis, and presentation components of the research project is another approach to analytical triangulation. Researchers can learn a great deal about the accuracy, completeness, fairness, and perceived validity of their data analysis by having the people described in that analysis react to what is described and concluded (Patton 2005, p. 560)

Guba (1984) states that "member checks is the single most important action inquirers can take. Inquirers ought to be able to document both having made such checks as well as the ways in which the inquiry was altered as a result of member feedback" (p. 85). This documentation was maintained.

An additional form of triangulation is "theory triangulation" (Stake, 1998). Through the use of "co-observers, panellists, or reviewers from alternative theoretical viewpoints" (p. 113), a researcher can confirm that a description of research findings is plausible. I have used administrators at the university site, academic peers, and the members of my dissertation committee to gain alternative theoretical viewpoints. The feedback from these colleagues led to my consideration of the mechanisms operating in the post-secondary educational field and the issues of power structures in the university.

Ethical considerations

Participants were informed that they could withdraw from the research at any time without explanation. Each participant signed the consent form acknowledging his or her understanding of the research study and agreeing to audiotaped interviews and attendance at a focus group that would include reflective writing and validation of summaries of the interview data.

Every effort has been made to assure the anonymity of the participants and the university research site. Only information directly relating to the study has been retained in written or oral records. Interview data were transcribed with all names, titles, locations, and other identifying characteristics removed. Participants' names were coded to an alphanumeric system and all materials were labeled in this way to protect from accidentally revealing participant information. The researcher and the individual who transcribed the interview data were the only people who knew individual participants' data. The transcriber was required to sign a form indicating her intention to honor the conditions of confidentiality.

Chapter summary

This chapter outlined the research design and methodology used for this study and how these align with critical realist ontology. This chapter provided a description of the process of gaining permission from the cooperating university; outlined the selection of the participants; overviewed the analytic steps, addressed trustworthiness, and concluded with a discussion of ethical considerations. In the next chapter, I give a brief overview of the case that is the focus of this dissertation.

CHAPTER IV: FINDINGS

Introduction

This chapter presents the data gathered during this study and are interpreted using the theoretical frameworks presented in Chapter II. In Chapter IV, I outline the project management elements and social structures operating in this study and, on the basis of illustrations of emergent powers and mechanisms operationalized in the three departments, describe how their characters differed. It is important to note that Pawson and Tilley are evaluation researchers and their CMO model is designed to provide understanding of why a policy intervention - a strategic top-down change - is adopted, or not (Harrison & Easton, 2007, p. 200). As a result, the insights provided by the analysis of this study's data in a modified CMO model are evaluative from the perspective of explaining departmental mediation of top-down policy implementation.

Thematic Contextual Elements: Project Management and Social structures

In the analysis of this study's data, many contextual elements, structural and cultural powers, and project management mechanisms were identified. Most were set aside. Those that appeared to have similar effects across all of the departments were removed as foci of this study. Realist explanations focus on the elements seen to be the real processes at work (Hedstrom, 2008, p. 38). Because realist explanations are not deterministic (Taylor & Bain, 2007) and causal mechanisms operate in open systems, contextual differences are critically important. To facilitate foregrounding of the most powerful contextual elements, social structures, cultural components, and project management mechanisms, others were recognized and set aside. These constituents of organizations that impact change have been recognized in the change literature and were also operating in this case; however, because

they were similarly experienced by all the departments in this study, they do not fundamentally help to explain the differences between the engagements of the departments in the case in this study. Examples of those constituents whose powers were experienced as barriers and catalysts similarly across the departments and therefore were set aside include the organizational level constituents such as leadership activities of the senior executive; demographic characteristics such as age, gender, and educational background of the faculty; and communication, feedback, and accountability processes of the university. These discarded constituents are prominent in studies about strategic change in higher education such as Kezar and Eckel's (2008b) study that identified twenty project management strategies and sub-strategies supportive of strategic change. For example, Kezar and Eckel found that setting and holding people accountable for expected outcomes in a change implementation heightened the likelihood of positive results. Participants in this study similarly reported that accountability mechanisms operated in a similar way across all three departments. This finding, although interesting, did not aid in understanding the differences in change engagement across departments and the role of project managers and was therefore set aside. Contrasting only the critical elements of the three departments' contexts, structures, cultures, and project management mechanisms allows for a fuller understanding of the causal configurations and their effects (Harrison & Easton, 2007, p. 198). As previously outlined in Chapter Three, the critical elements were identified through the data provided during the focus group when participants completed the validation document and subsequently discussed the barriers and catalysts to departmental engagement with the modularization initiative. Through analysis of both the data contained in the validation document responses and the focus group discussion, departmental differences in experiences with change elements were identified. These became the focus of the analysis that follows.

In general, the critical project management elements and social structures identified in the data (Table 3) were thematically similar; however, the manifestation of their powers through differing mechanisms altered their unique character across the three departments. This was not unexpected given the interaction of emergent powers in the unique causal configurations for each department (Sayer, 1995).

Table 3: Elements and Structures

PM Elements	Social Structures
Change Culture	The Role of the Dean
Previous Industry Experience	Department Head Role in Strategic Change
Graduate Production Process	Technology Access for Curriculum Management
Departmental Trust Level of Senior Administration	Training Opportunities and Support

In the following sections, I more thoroughly describe each of the critical project management elements and social structures and their unique characters as they were manifested in each of the departments in this study.

Project Management Elements

The project management elements identified in this study as having marked effects on how the causal mechanisms interacted to create differing outcomes were the change culture of the departments, the previous industry experiences of the members of the departments, the nature of the process by which the departments produced graduates, and the level of trust

departmental members had of senior executive administration. The character of each of the project management elements varied across the three departments. This character of a project management element varies as it responds to the many influences upon it (Pawson & Tilley, 2001). A summary of the variations of the contextual elements is provided in Table 4 followed by a fuller explanation.

Table 4: Departmental Project Management Elements

PM Elements	Health	Hospitality	Business
Change Culture	Hardy	Open	Resistant
Previous Industry	Compliant with	Occupations create	Varied
Experience	bureaucratic directions	collective openness to change	
Graduate Production Process	Mass production - craftwork blend	Craftwork	Mass production
Trust of Senior Administration	Moderate to high	High	Distrust

Change culture of department

The most pervasive project management element across the three departments was the reported "change culture" of the department and how project manager can effectively manage this change. In this study, the characterization of the change cultures across the three departments varied from "change resistant" to "change hardy" to "change open."

The Department of Business Programs (DBP) had a culture that resisted top-down, mandated change. When asked to describe the change culture of the Business department, one participant replied, "very much an older, conservative, status quo environment," and

another responded, "Overall, it's fairly negative." This change resistant culture was due, in large part, to the department's history with a significant top-down implementation of a Total Quality Management (TQM) strategic initiative. A participant explained, "We saw this [TQM] thing, we put a lot of time in it and it went away. Okay. Now, [the modularization project] comes along. People are a little more skeptical." A second participant commented, "Well, what's the reinforcement for a change that's been imposed and failed? And how much have I invested in that change over time? My resources, my lost opportunities to do something that I really wanted to do? So does that barrier get higher over time? Maybe."

Over time, the DBP also adopted a stance of criticality towards senior executive administration's decisions: "Business people..., I would say they're one of those areas, perhaps, that likes to look critically at things" (Participant). The critical stance towards senior executive administrative decisions interacted heavily with the department's cultural logic of "professional authority" to reinforce and support the change resistant culture of the Business department. This is evidenced by a participant's explanation that the university has a "cultural thing as an organization that [LEC's executive] think that somebody else is doing it better and let's bring in the expert which in itself might be a bit of a slap on the face to the individuals that are expert and resident [in the Business department]." The logic of "professional authority" manifested as a proxy for the status needs of DBP. When participants invoked the rhetoric of professional authority, they were speaking of their need for status. The status need of DBP is explicated more thoroughly later in this chapter.

The Department of Health Programs' (DHP) participants reported a culture that was "change hardy" to top-down change. The Health department experience with the TQM strategic initiative was largely seen as positive. Although this department shared the experience of the TQM strategic initiative being implemented and then gradually fading from the forefront, the departmental members perceived this as a natural evolution. The DHP had

actively used TQM principles and processes during a past restructuring of the department and, as a result, felt that "we learned a lot about change ourselves when we went through the [restructuring of the Health department] because we were taught a lot about change in the [TQM] process" (Participant). Many of the processes implemented at the time of the TQM movement in the university were still intact in the DHP including guidance, monitoring, and project team structures and communication processes such as team charters and retreats. The TQM history of the Health department contributed to a balanced, collegial, teamwork management style. The "change hardiness" of the department meant that "We had very few resisters to the [modularization] initiative and I believe that in part that was because of our [TQM] education in the mid-nineties" (Participant).

A climate of embracing and welcoming change was reported by the Department of Hospitality Programs (DHosP). "In our [department], we are people of change" (Participant). Participants could not give evidence of the effect that the TQM implementation at higher education had on their department but spoke about a history of a highly bureaucratic and controlling department head that resisted suggestions of innovation from departmental members. "It was practically a dictatorship in this [department]... the only change came from [the department head's] office. No other change was ever accepted, whether it was good or bad" (Participant). The controlling department head's replacement was welcomed by the department, and as he encouraged active participation in grassroots innovation, the department built a change open culture. Participants report that Hospitality department "staff has been really supportive" of change.

Previous studies on organizational culture and change have focused on the effects of discipline-specific culture in organizational change efforts (Tierney, 1995). However, I did not locate any studies on organizational change in higher education that categorized departmental cultures based on change or on the degree of openness to top-down change.

Previous industry experience

Research has shown that different personality types are drawn to different occupations and thus different roles as project managers (Kolb, 1987; Myers & Myers, 2001). Academic staff at Greek higher education is required to have industry experience of the occupational set that comprises their department. The specific industry experience and skills provide a common background for the context of the academic department. These shared sets of industry-related experiences influence the department's collective response to events. A participant from the Hospitality department explains this relationship.

It [engagement with change] depends, and speaking specifically at the Greek University, it depends what industry you came from... You see in Hospitality we come from an industry where we work 12 hours a day, six days a week, every holiday, every Christmas, every New Year's. Change is rapid. So we made time to think about change then and discuss with executive committees and share ideas and whatever.

So we come to the university, we say we just have all this time and we've always said that there's a lot of things to do at the university, we're very busy, but we have the time to do it, and if you're paid to think [about change] and act as a project manager, you should take time and think. If that means going for a walk outside, or having a cup of coffee and thinking, that's productive time.

In DHosP, the character of the occupations from which the members of the department are selected create a collective openness to change.

The Health department members come from occupations that are highly standardized with routinized procedures that are often critical to the health of individual clients. The health care industry requires accuracy and compliance to authority-driven standards. Instructors in DHP are used to documenting the "right way" to do procedures and documenting activities once they are complete. Their occupations generally have national occupation standards:

descriptions of the skills that they must have in their occupation that include project management skills as well. Thus, a description of a learning experience worded as a skill outcome is familiar and comfortable to them, and this is at the root of modularization. DHP is, "by its nature, highly detail orientated... It's the responsibility of these people to be profoundly detailed and profoundly accurate and for whatever reason they seemed to adopt the [modularization] process quicker and faster" (Participant) than other members of the university. This industry background made the experience of modularizing curriculum based on outcomes and documenting components of the teaching and learning process in modules a familiar experience. Members of the department come from occupations where they expect to take orders from their superiors. "Paramedics do have to make decisions—life and death decisions—but with limited knowledge. They take directions from a medical director. And then there's the vet, and then there's the Animal Health Technologists on staff that follow the vet" (Participant). Thus, because the members of DHP shared an assumption that members lower in the organizational hierarchy must comply with directives of senior administration, they were compliant with a top-down, directed, strategic change.

In the Business department, the faculty is hired from a wide variety of business-related occupations that are highly varied in their character. Commonly, these instructors have baccalaureate degrees in Business. Participants emphasized that they taught students about managing strategic change. This academic knowledge of managing strategic change was not cited in the data as facilitating the department's engagement with strategic change but rather characterized as the departmental member having a distrust of senior administration's ability to effectively implement strategic change: "We teach... how strategic change is developed, decided on, implemented and measured to see how it is successful. We do not see any of those practices being employed" by the university.

Tierney's (1995) study of cultural politics and curriculum reform found that faculty departmental culture was oriented toward a disciplinary culture rather than an institutional culture. At the Greek higher education, participants in this study did not characterize the nature of the culture of departments so much on the discipline as on the industry-specific experience that departmental members brought to the departments. However, in identifying the finding of department members' experience having a unifying effect to the department, I was guided by the research of Becher and Trowler regarding academic tribes (2004). I found no studies that related to departmental members' previous industry experience as project managers relating to departmental culture.

Graduate “Production Process”

The university under examination has been characterized as having been created to serve business and industry. This perspective is so strong that graduates are often characterized as the product of the organization. "Industry is happy with the product we're producing" (Participant). The character of the "production process" of their graduates differs across the three departments and is greatly based on the attitude of the academics in whom traits of functioning as project managers are identified.

The Business department mass produces graduates in that they have large numbers of sections of the same courses and students move through the progression of courses to graduate. "What really drives our activity is student bums in seats" (Participant). There are very large numbers of applicants for seats in the programs, and the department responds by providing many sections of each of the classes. "We're teaching upwards of twenty sections in a year of a single course" (Participant). Graduates have skill sets designed to meet the needs of many different occupations.

In contrast, the Hospitality department uses a "craftswork" mode to produce graduates; that is, small teams of instructors work closely to produce limited numbers of "custom-designed" graduates (Jones, Mills, Weatherbee, & Mills, 2009). DHosP prides itself on focusing on individual student success, instilling a strong work ethic in students, and producing graduates who are highly skilled culinarians with skill sets customized to individual occupational needs. "Our priority here is the student first" (Participant). This perspective pervades how curriculum is presented to students - highly customized and focused on student experiences.

We continually win the student award points for volunteer work with the smallest department at the university... That's what we instill in our students. That's why when our students go out there, they're prepared to work the longer days and the extra functions and the different things and get involved with their community and thus function like project managers. [It's all about] success of our graduates. (Participant)

The Department of Health Programs' perspective on their graduates is a mix of the two perspectives. The graduates of this department are also trained with highly customized skill sets depending on the occupation they are interested in. The department provides on-the-job practical and highly specialized lab experiences for students. A participant characterized the ideal view of the Health department this way: "To me it has to do with successful students, so, probably I would just like [others] to say that the [Department of Health Programs] produces students who are 100 percent successful on their [professional] exams. That would be my ideal." However, the DHP also has other pressures that modify this focus on distinctive training for students. The health services sector has experienced a huge growth in demand for services; subsequently, DHP has experienced pressure to graduate more highly skilled workers than ever before. As a result, the department has been modifying the "craftswork" mentality with some aspects of "mass production" in offering a greater number

of seats and restructuring curriculum to yield multiple section "core" courses common across program clusters.

The differing graduate "production process" contextual element relationship with the teaching and learning logic of the departments affected implementation either by amplifying or diminishing the power of the teaching and learning logic. From a critical realist perspective, the mass production context supports a knowledge transfer instructional logic while a craftwork context supports a constructivist, experiential learning logic. The "mass production of graduates" contextual element had tendencies in opposition to the tendencies of the software-embedded experiential learning logic of the modularization template. That is, departments who embraced the knowledge transfer learning logic would resist placing concepts, activities, and assignments in modules as this was viewed as undermining students' motivation to attend class to receive knowledge. In contrast, the craftwork production process had tendencies that magnified the tendencies of the experiential logic. Craftwork production assumes learning that is highly customized to the individual learner. Modules were seen as a vehicle to provide flexible, customized learning opportunities to students. This supports the experiential learning logic; instructors viewed students' attendance to be an opportunity to engage them in hands-on experiential learning or constructivist cognitive learning. As such, modularization was not seen as a threat to the teaching and learning process.

Departmental trust of senior level administration

Each of the three departments in the study characterized their level of trust of senior administration differently. The level of trust is a project management element that results in events being viewed differently by the departments.

The Department of Business Programs exhibited a high level of distrust of the senior executive administration both in regard to their administrative managerial skills and their motives. The distrust of senior executive skill, knowledge, and ability to effectively implement strategic change has already been described in the "Previous Industry Experience" section, and reference has been made to previous experience of DBP with the TQM initiative and skepticism about engaging in another strategic change generated by senior administration in the "Change Culture" section. Additionally, staff in DBP is highly skeptical of the veracity of messages from the executive regarding the modularization project. "What's their real reason for doing this?" a participant asked. "There was, I think, the allusion that we were never being told exactly the truth," a participant stated. "What ticks people off lots is if the administration plays games. People don't like people who play games; they don't like games being played. So if you're trying to convince me to participate or whatever and choose me, go away.... Why should you have secrets?" (Participant).

The Health department characterized their level of trust of senior executive as formerly strong but now somewhat compromised since the TQM initiative had seemed to lose its focus. "Based on a relatively positive experience of change before [the TQM initiative], there was still a certain level of trust within the [department]" (Participant). Messages from this department regarding trust of senior administration were mixed. One participant comments, "That's why it [the modularization initiative] made sense to me because [senior administration] gave me the big picture." While another indicates the department wasn't completely trusting.

I often think when people think that the administration is playing games, it's just that the administration hasn't thought about the stakeholders and that it's not that they're playing games, it's they haven't thought it through and I don't know if that's just being naive, but I guess it's all that matters if communication is viewed that way, then that's the way it is.

In contrast, the Department of Hospitality Programs trusted of senior administration's people and project management skills. A participant speaks highly of the executive teams' style.

There's no reason why a highly ranked Academic cannot come down and talk to an instructor or a program head or anybody, and I use [the president] as a good example. I think he is a successful manager. [The president] has faults and [the president] has screw-ups—everybody does... But what I'm saying is that is an excellent style and [the president's team needs to manage the same way.

DHosP has respect for senior executive's ability to hire talented administrators that bring applicable knowledge to their portfolio. The department is also trusting of senior executive's motives for instituting a change initiative. In an interview, a participant emphasized trust as important in his department's response to strategic change.

Q: When a strategic change comes down from on high, so to speak, the faculty trust that this is truly something that needs to be done and so even though they may be a bit reluctant and worried about workload and various issues like that, they're more willing to go along than maybe other areas at the university, for example? (Researcher)

A: Perfect. It's exactly that. It is, and I think the key word there was trust. (Participant)

The history of the university with the implementation of university-wide initiatives affected the departments' views of top-down strategic change. The departments of Health and Hospitality had generally experienced the top-down TQM initiative positively and tended to have a higher level of trust of the university administration's judgment of the change required and methods of implementation of that change. Some members of the Business department perceived that the TQM initiative had failed or was abandoned, and this may have affected the department's trust of senior administration's judgments and change methodologies.

Social Structures and Project Management Mechanisms

Critical realism recognizes that social systems are open and causation can be due to multiple mechanisms that are contingent on specific contexts (Archer, 2003). As Archer contends (2003) project management mechanisms at play in change causation can be a result of structural emergent powers or cultural emergent powers. As a result, mechanisms operating in the departmental contexts have been categorized as those resulting from social structures and cultural system components. The thematic social structures and project management mechanisms are considered to be the most critical in this study and they are described in this section.

Those social structures identified in this study as having marked effects on the change engagement outcome were the role of the project management skills of the leader of each department, the department heads' role in strategic change, the access to technology for the purpose of curriculum management, and training and support opportunities provided during the implementation of the modularization project. As with the contextual elements, the social structures and their mechanisms vary in their manifestation across departments. This is not unexpected as Hedstrom and Swedberg (2001) note that one of the key defining characteristics of mechanisms is that they perform the function of explaining how variables are related; in other words, how does a particular context relate to a particular outcome? Because of the subtle nuances of the processes that relate context(s) and outcome(s), mechanisms vary subtly in their manifestation.

So too, social structures manifested their mechanisms and powers differently across the departments and these differences are summarized in Table 5 with a fuller explanation following.

Table 5: Departmental Social Structures

Social Structure	Health	Hospitality	Business
Role of PM skills	Compliant with initiative	Compliant with initiative	Mixed messages regarding initiative
Department Head Role in Strategic Change	Sense of efficacy high	Sense of efficacy high	Sense of efficacy low
Technology Access for Curriculum Management	Non-issue	New computers	Poor
Training Opportunities and Support	High use and provision of opportunities	High use and provision of opportunities	Training seen as a barrier - modified support strategies

The Role of the PM skills

Each academic department at the university has a responsible person with project management skills that is the link between senior administration and the departments. This persons known as the leader or president of the department straddles the strategic and the operational activities of the university functioning as a project manager while the senior executive team, in collaboration with the department leaders, determines strategic direction and activities for the university; the department leaders communicate and facilitate the implementation of the activities in the departments. Largely, the department leaders' task heads with achieving the goals set in the university business plan. The project management skills of department leaders in their roles affect departments' views of every aspect of university life. Individual faculty members in departments are largely unaware of the effect

that the department leader has on their predisposition to believe certain things and act in certain ways, but the data in this study clearly illustrate this mechanism.

The Department of Health programs experienced a marked period of time without a president being present. At the beginning of the implementation, the president was on an extended leave due to health issues and there was a substantial period of time before the dean was replaced.

When [the modularization project] hit, we had no dean of the [department]. We were without a dean for almost three years... so those were my stresses at the time. I know how you scramble and wander and that's not a good feeling (Participant).

The staff in DHP was often confused by the expectations of the implementation of the modularization project because "the conduit for information coming to [DHP] was broken" (Participant) - the structure was not operating. Staff often received communications late and had to scramble to meet deadlines. "I think what would probably happen is that sometimes the messages didn't get through, because there was no dean and then all of a sudden there'd be a one-week deadline" (Participant). The absence of a leader functioning as project manager in the department impacted the outcome of engagement with the modularization project.

DHosP also initially had no leader for the department, but since the department had a very "change open" context, the department head(s) actively sought out information regarding the modularization project. "I wanted to lead the [modularization] project for Hospitality... I pick up the phone a lot [and call department] heads, managers, whomever" (Participant). The change open context impacted how the structural power of the role of the leader was experienced. The new dean for DHosp was perceived to have an empowering project management style. "I work on a very interesting level with my dean, where I keep her up to speed as to what is going on. I don't wait...for the dean to come tell me what to do" (Participant). As well, the DHosP dean was seen to support the modularization project. "Our

president... always supported the initiative and [is] excellent—[the dean] keeps... up to speed" (Participant).

In contrast, the leader of the Department of Business Programs was reported to have a bureaucratic and directive project management style. "He [the leader] is of the old school of project management that when it comes from the top and that's the way it is, then you will tell people that this is the way it will be done, you don't have to give them the reasons why or anything" (Participant). The project management mechanisms of control and power of the structure of the leader's role changed the character of the structure in the perceptions of faculty. Additionally, department heads in DBP received strong messages that indicated that the president was not in agreement with the senior executive's process and goals of the modularization project. "I think he [the president] wasn't as on side with it [the modularization project] as others [other presidents]" (Participant). As a result, the management group of DHP received private negative messages and yet heard positive public messages about the strategic initiative. In private, a group consisting of the leader and some highly influential department heads with long tenure in the department had shared their concerns about the modularization project. These private conversations resulted in mixed messages to the department heads and resulted in "some incongruity based on the public messages that I heard from the president" (Participant).

Department Head Role as Project Manager in Strategic Change

Across the three departments, there were variations in the department heads' perceptions of their ability to initiate, manage, and be successful with change initiatives. This sense of efficacy with respect to change management relates to project management elements and other project management mechanisms within the departments but was clearly an important aspect for the participants of this study.

As might be expected, with a controlling and directive dean, department heads in the Business department were the most negative about their ability to control or manage change. Business DHs disagreed with the statement on the Validation Document regarding the ability of department heads to affect change implementation. Many of the Business department heads' comments use the phrase "just do it" meaning that they were responding to orders that were non-negotiable. In response to the question, "So you did not feel included in the thinking and/or planning around that project?" the response was "It was absolutely a straight 'do it,' period."

Both the departments of Hospitality and Health exhibited high confidence in their ability to manage and be successful with change initiatives. In DHP, a department head spoke of a top-down strategic change implementation.

Last year when the message came down that this was the organizational goal or the approach to this change, I felt particularly in one program area that the stresses in that program area were just simply too great to absorb that and I made a personal choice and would be willing, very willing to be accountable for that, that I was not going to follow the total process, that I was going to follow a version of the process, so that I would slowly introduce that change to that group of people, and in fact, just based on a staff meeting this morning, was able to communicate that to them, the message that last year we didn't do the whole process because I didn't think you guys could, and now this year we're going to move into the process a little bit more.

Although both departments reported high confidence in their ability to engage appropriately with change, the Hospitality department reported being very proactive around change. The nuance between the two departments is that DHosP expresses a sense of its ability to initiate transformative change.

The first week of September I gather the faculty together in two groups, in focus groups. We talk about change. We talk about vision. We talk about blue-sky thinking. We talk about operation core business and we document all of these tidbits. And from there we take them with the leadership team, we go on a retreat for a couple of days out into the country. We take all of those, all of what the university has given us, require change, and we meld it into a Hospitality business plan.

Clearly, the three departments' leaders have differing perspectives on their role as project managers and ability to manage change within their departments, whether the change is that initiated by senior administration or change that is a result of changes in the environment of the university.

It is important to note that the mechanism of differing perceptions of self-efficacy around change management is operating in unique departmental contexts with differing levels of openness to change. The power of the project management mechanism of the department head's role in strategic change is interacting with the differing mechanism of the structure of the dean's role to create differing effects in the departments. The various contextual elements and structural mechanisms are beginning to show their interactions like strands in a tapestry. Two further structural mechanisms are interacting in this milieu: access to technology and training opportunities.

Technology access for curriculum management

Although the university prides itself on providing a highly sophisticated technical environment for students and staff, the extent to which technology was available was reported as a mechanism that affected departmental implementation of strategic change in this study.

All departments within the university have autonomy and discretion with the spending of budget euro allocated to the department. Historically, each program within the departments

would determine what computer equipment they would purchase. As technology improved and became recognized as a requirement for instructors, the technology became standardized across the university, but departments still had discretion on when to upgrade computers to the standards. This resulted in uneven access to technology across the university departments.

The data show that participants in this study agreed that computer technology was experienced either as a barrier or a catalyst to engaging with the modularization project depending on the access faculty had to appropriate technology.

In the Department of Health Programs, computer technology access was not mentioned in the data. The tone of all of the data indicates that access to computer technology was not an issue and was below the level of consciousness of the participants. When asked about faculty interaction with computers with respect to the modularization initiative, participants referred to staff not being comfortable with the technology—not lack of access to the technology: "I think people really were frustrated with all this computer stuff because there's a few computer-phobes. But if there really was a problem with computer literacy, then they could find the help." This "lack of access to technology" is an example of a structural power that wasn't activated in the context of DHP.

On the other hand, the Business department faculty experienced a lack of appropriate computer technology and so experienced computers as barriers when the machines on their desktops could not interact with the database technology designed to assist in the modularizing of curriculum. "We had people that did not have computers on their desktops that could actually do the work that they were being [asked] to do" (Participant). Additionally, DBP participants indicated that required training to gain a Personal Identification Number (PIN) to access the modularization application and database was a barrier to faculty accessing the modularization application and reduced their engagement with the strategic initiative.

In the Hospitality department, the lack of appropriate level technology that could have been experienced as a barrier was turned into a catalyst by actions of the department head despite budgetary concerns.

Some of the things we did also that made a big difference is we identified that we should go out and purchase a new computer for our staff and just like many things around here where they say, well, where are you going to get that money? We did and we housed all the office with - well, it's around 15 new computers now, the current flat screen, state of the art computers. We just started setting up new computers in everybody's offices and they were so excited about these new computers they just needed to do something (Participant).

The structural power of access to technology was characterized by the project management mechanism of providing appropriate technology and presenting it like a gift to staff with the expectation that now they would have the opportunity to use the technology to do great things.

Training opportunities and support

During the implementation of the modularization initiative, a wide variety of training was provided to the staff of the university. The training opportunities covered such topics as basic computer literacy training, writing objectives, managing curriculum in the modularization database, customizing modules, enhancing modules with media, etc. All staff was required to attend a minimum set of training events to receive a PIN (personal identification number) to access the modularization software application. The use of a PIN ensured security of the curriculum database, and the required training ensured that all staff had the basic skills required to manage the software to avoid potential harm that could be done to the curriculum in the database.

Health faculty viewed modularization training as a professional growth opportunity and support for the modularization initiative. One Health department head commented that the modularization training was an opportunity to learn about curriculum development. Not only was the content of the training seen to be positive by DHP, but the way it was offered was perceived positively: "I think the way [modularization] training was available to staff - many, many times, many ways, that was very good" (Participant). Additionally, DHP accessed members of the modularization team to provide one-on-one training and support.

When things got a little off track I would just have one of the [modularization team] come to a staff meeting and they asked the questions, "How are things going? Is anybody having any problems? Where are you? Tell me about your [modules]. Tell me about your experiences..." That helped quite a bit. (Participant)

As well, a participant recalls "There were some arrangements made that [an instructor] would work with the [modularization] people two days a week; he would physically be beside somebody there two days a week." DHP also accessed funding available from the modularization initiative to hire a resource to help faculty with modularization activities. As faculty began to engage with the initiative and felt inadequate to the task, access to a modularization expert provided by the DHP department heads was a supportive mechanism for the staff. "Then I needed somebody at the program level that worked well and we had hired extra help and then there was help available through (the modularization team), which was wonderful" (Participant). These additional resources, when recruited, liaised heavily with the modularization team to ensure that they were helping faculty to modularize the curriculum to the standards set by the university.

DHosP used training to support and encourage instructors to modularize curriculum. But even more importantly, the DHosP department heads' overt support of training for instructors was a public statement of their support for the initiative.

People knew that I was accurate and I didn't... fool around. We would do planning and... we have these huge checklists and these accomplishment goals for staff that are operational... So, the staff member comes in and we'd be reviewing this and I would say, okay, are you confident that you're going to go into [the software application], and are you confident to go into this [modularization] project? Are you trained? Do you feel good? Oh, yeah, I feel great. Okay. Go into [the software application] and show me around... When they would say, I don't know my PIN [Personal Identification Number] number, I said, if you don't know your PIN number or password you haven't been to [the software application] enough and you're not ready. So let's go to in-service and I would go [with them] and they would take all their training again. (Participant)

Attending training with a staff member was public support for the individual and a way of showing that even the department head needed to attend training more than once. In that way, attending training multiple times to gain comfort with the processes was viewed positively by the faculty. This was critically important for DHosP because their typical instructor had extremely limited formal training in curriculum development and management. Like DHP, DHosP also made full use of consultation and support services of the modularization team to the extent that they hired their own full time consultant away from the centralized modularization team to work exclusively with their staff providing training and support.

I'm going to... hire this person for one year - a full-time staff [member] who will sit in this office and help the staff modularize, understand [modularization]. She's not here to do it for them essentially. She's here to educate the staff on how to do this properly, and that's what happened, and we just took it on our own. (Participant)

In the Business department, the need to take training to gain access to the curriculum database was seen by some as an insult to faculty. Yet others found "when we had troubles

we could call somebody and get an answer or whatever. There were courses that were available that fit our time slots and things like that" (Participant). One of the strategies implemented by department heads to alleviate the requirement of faculty accessing training to receive a Personal Identification Number (PIN) was to train their administrative support to do the entry for instructors. "We had our admin... [take modularization training] and she did a lot of the inputting for us, but I still know how to do it and can get in... but she was excellent. So to have that kind of backup as well took some of the pressure off." The mechanism around training and support in the Business department was vastly different from that of DHP and DHosP, perhaps because departmental leaders did not agree with the processes and goals of the modularization project and, as a result, were not willing to dedicate resources.

CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The main research question of the current study has been to investigate how project management elements may influence the change and upgrade of Greek universities.

Project management skills including leadership qualities are critical to the successful implementation of any change, regardless of its genesis. Project Management and Leadership with respect to the strategic change must be displayed at all levels of the institution experiencing change. Senior administration must assume responsibility for the effects that their decisions have on faculty and collaborate with faculty groups regarding the change decision and the implementation strategies. Enabling project management mechanisms such as conversations at the university must be implemented by senior project managers to reduce the power of the mechanism of fear and status needs operating within departments. The deliberate engagement of departmental project managers in sense-making by senior administration would provide knowledge, understanding and a sense of efficacy in leading change. The engagement of senior administration with department heads was absent at the Greek Higher Education and more specifically at the university under investigation. With the exception of annual presentations to the university membership of the business plan, no forum was available for department heads to engage in dialogue with senior administration. All communication was filtered through the bureaucratic channel of departmental presidents. At least in part because of this apparent disengagement of senior administration in the implementation and support of their imposed change, the desires and beliefs of the middle management bureaucrat - the department leaders - became instrumental in how the university experienced the strategic change initiative. Departmental leaders need to be aware of their desires and beliefs (Hedstrom, 2008) and how those desires and beliefs affect the context and mechanisms that their departmental members experience.

The bureaucratic positional power of the role of the dean was relatively unfelt in the departments of Health and Hospitality since for those departments; the position of the department president was filled only after the initiation of the project, so the bulk of the leadership fell to the department heads. Having a hampered communication system did cause some barriers - especially for receiving information in a timely fashion - but, generally, the departmental leaders were empowered to take on the implementation of the modularization initiative.

In the Business department, the power of the dean role was clearly experienced by all the participants of this study; although, some were of the inner circle and experienced that power differently than those who were not. Those who only saw the "public face" of the dean received mixed messages and, at times, were uncertain how to act. Most took their cues for their behavior from the departmental inner circle members. However, some followed the lead of other members of the university community in other departments and used those peers to help them to make sense of the goals of the project and devise strategies to manage the project. Those participant department leaders who were members of the inner circle were heavily influenced by the hurt and anger felt as a result of the dean being passed over for the position of academic vice-president. Aligning with the dean in passive resistance to the vice-president's project caused them and their departmental staff a great deal of stress, confusion, mixed messages, and low levels of engagement in the modularization initiative.

This experience taught me that close contact and deliberate, planned, ongoing communication between senior administration, change agents (project managers) and departmental leaders during the decision-making around change initiatives and throughout the term of an initiative is crucial. Such close communication enables sense-making for all participants and ensures that as the change implementation organically changes as institutional members learn more about the nature of the change, all university leaders, from

the president to departmental leaders, will be fully aware of the fluid changing nature of the change implementation (Kezar & Eckel, 2008a, 2008b).

Chandler, Barry & Clark (2005) have examined the human cost of project managerialist strategies in higher education in the UK. Their respondents reported that increasing workloads were encroaching on their personal lives and reducing the time that they could spend with their families. The increased emphasis on accountability has led to a sense of increased surveillance that creates a sense of stress in the faculty. In this study of the modularization initiative at the higher education, the use of reporting from the modularization database to monitor progress and the meeting of annual targets for completion was experienced by faculty as surveillance. Other than the completion of course outlines annually, faculty output had not been monitored at the university. Resistance to this monitoring was seen in the actions of the faculty who entered "junk data" into fields in the database to trick the monitoring function into counting a module as complete. The unfortunate result of this is that the individuals suffered the wear and tear of heightened pressure and monitoring of their work once the practice was identified by the modularization team and reported to senior management.

As reported by department heads in this study, (Chandler et al., 2005) found that department heads attempted to insulate departmental members from some of the pressure that managerialist strategies invoked. In this study, one of the department heads from the business department reported that he entered curriculum data into the modularization database for faculty members, rather than insisting that they do it themselves. This meant that this department head felt pressured into voluntarily increasing his own workload as a strategy for moderating pressures on his departmental members. This particular department head resigned his position and returned to a faculty role at the completion of the modularization initiative,

largely as a result of the stress he experienced during the implementation of the strategic change.

Stress in the workplace has been largely seen as the problem of the individual who is suffering the stress. Senior administration in their implementation of project managerialist strategies in higher education has largely ignored their responsibility for the stress that the institutional members experience. Indeed, by the use of the "blame the victim" mentality, stress becomes a powerful mechanism of senior management to control individual and collective behavior (Chandler, et al., 2005).

Further, the increased market orientation of educational products—courses, modules, workshops—results in the development of these products to attract valuable fee-paying students (Miller, 2001). In the case of modularization at the higher education, online, digital access to course modules was deliberately used in university's marketing campaign as a high-tech advantage to attract students. The ability to attract students allows the institution to gradually heighten the benchmark at which students are accepted. This contributes to a shift in the student population to more capable students at the expense of the disadvantaged learner. Levin (2006) has observed this movement toward elites and away from communities.

Fowler (2008) in his analysis of higher education faculty attitudes in the UK found that faculty experience a reduction in their level of satisfaction in their roles due to the market-driven view of students as consumers, an increase in managerialism within the institutions, and a reduction in real pay levels due to increasing workloads. In Fowler's study, the move to managerialism and away from a collegial environment has left staff feeling unable to voice dissent over issues. Levin, Kater and Wagoner (2009) found similar effects on faculty in their study of community colleges in Canada and the United States. Fiscal reallocations and budget cuts have negatively impacted faculty morale such that administrators in the study spoke of a sense of desperation on the part of faculty. As faculty

feel increasingly disenfranchised, stress increases resulting in physical and emotional problems.

Miller (2001), states that, in Canada, provincial governments' long term strategy is to align higher education institutions more tightly to business interests and market forces. One of the ways of doing so was through the provincial government's appointment of powerful business and industry leaders to the institution's Board of Governors to guide the institution in alignment with economic forces. Further, such alignment coupled with an institutional emphasis on managerialism and economizing behaviors impacts faculty values (Levin, et al, 2009) moving them farther from democratic principles, which were fundamental in the early community college movement. Institutional members felt that their institutions were moving away from a purpose of education to that of training—an economic goal rather than a societal goal. Levin, Kater and Wagoner (2009) postulate that community college faculty, through their increasing exposure to corporate influences in their institutions, are experiencing a socialization that indoctrinates them into a corporate mindset such that they come to identify with the values of the espoused managerial culture. As such, the employees become self-managing and engage in self-censorship so that values and views become homogeneous and dissension is ignored or eliminated. Faculty personalizes the corporate culture resulting in little separation of work from their personal lives.

Although much of institutional change in the past two decades has concerned itself with embedding attitudes, values and practices in alignment with project managerialism and market approaches, strategic change is, in itself, not an evil force. Change is inevitable as information and communication technologies "shrink the world," and the forces of globalization affect the economies of the world. Project Managerialism in higher education is not universally experienced as having negative effects on institutional members (Chandler, Barry & Clark, 2005; Deem, 2006). The negative effects of top-down, imposed, strategic

change is due to both the substance and processes of the strategic change. The substance of the strategic change should be decided in a collaborative, collegial way. The processes by which the goals of the strategic change are implemented are critical to ensure reduce potential negative effects on faculty.

Given that change is inevitable and that, in the current environment, top-down strategic change will continue, how can academic managers and leaders facilitate strategic change in a manner that militates against the potential harmful effects? As Balogun and Johnson (2008) observe, management has a responsibility to instigate and lead change in their organizations. Change cannot be escaped and when an institution's governance structure does not allow for academics and departmental members to share in decision making with senior management (Levin, et al, 2009), middle managers still need to be able to effectively and ethically implement top-down change.

Perhaps part of the solution to the challenge of top-down strategic change lies in the promise of the reflexivity of human agents (Archer, 2003). Because agents are reflexive and are able to deliberate both on how others affect them and how they can affect others, agents have the generative power of reflexive authority (Hoogenboom & Ossewaarde, 2008). Individuals in the information age actively engage in understanding and using diverse sources of information. As reflexive actors, they seek to shape their lives and contexts through the power of reflexive authority, rather than accepting their situation as fixed. They are able to question rules and expectations in a reflexive manner to find processes and outcomes that better meets the needs of all. Hoogenboom and Ossewaarde (2008) define reflexive authority as "the belief in the ability of institutions and actors to negotiate, reconcile and represent arguments, interests, identities and abilities" (p. 614). Since this belief lies in agents within an institution, leaders of change can use reflexive authority to know that negotiated change is not only possible, but also the right path to take. Leaders with reflexive authority have the

qualities and abilities to lead change without knowing in advance how the collectivities they lead will operationalize the change, nor the final result of the change. The leader and members engaged in the change negotiate and use rules produced during the process and work to attain the goals that meet the needs of the collective. This view of change leadership is fundamentally different from rationalist, goal-oriented, "visionary" change, because the final outcome is unknown as actors move into the change. Change leaders engage collectivities in a process through which multiple rationalities can be embraced and through the resultant generative powers an emergent outcome is achieved (Greenwood & Lawrence, 2008). Leading change in this manner takes courage and faith that the outcome that will be reached is exactly the right result for the collective good of the individuals involved. Based on the current research, we may conclude that leaders of change may use project management mechanisms in order to engage in leading change in our bureaucratic institutions that allows their senior management some comfort while meeting the needs of the department engaged in the change.

Suggestions

Structural, cultural, and agential powers that emerge during a strategic change initiative in the Greek education system through effective project management methods at times yield changes in vision, present unforeseen barriers to meeting the needs of the university and learners, or provide unforeseen opportunities to improve the university and learner experiences. The role of the change leaders is to recognize these adaptive emergent powers and work with departmental members to make them more salient and applicable for the department (Weick & Quinn, 2002, p. 381). Departmental change leaders need to recognize that a change implementation is a process. It unfolds and makes itself known as it emerges. Change leaders need to provide stability to a change initiative by engaging

university members in conversations about the unfolding nature of the change with opportunities for the university to devise alternative strategies and outcomes (Kezar & Eckel, 2008a, p. 46).

This study illustrates that mechanisms operating in a context can create opportunities that can be seized upon and alter the direction and scope of the initial vision. At the beginning of a large change initiative, this growth and adaptation of the vision has to be emphasized so that all participants realize that changes in the vision are not due to "hidden agendas" but rather due to the nature of the interplay of mechanisms. Alerting all members of the change community when these changes occur and describing how they occurred is important so that members do not feel "blind-sided" as the vision grows. This finding supports Lueddeke's Adaptive-Generative Development model (2005) with its prescription of ensuring that actors in a strategic change initiative engage in experiential and dynamic praxis - including learning about the nature of change itself - to better cope with the change process.

It is critical that policy makers gain a better understanding of the nature of change as nuanced, turbulent, complex, and emergent (Fullan, 2004). Policy that prescribes the steps to be taken in the process of change is problematic in its approach. That is, the assumptions guiding policy implementation are often based on a view of change as rational, linear, and controllable. This study shows that variations of context, culture, and structure affect actors' engagement with change and that, although the goal(s) of policy implementation may be consistent, the outcome of the implementation will be adapted to the local context (Dyer, 1999). Recognition of this reality means that policy makers need to define the issue(s) and work with the change community to negotiate these local adaptations to the goal(s) of the policy. The implementation community must then be encouraged to engage in adaptive and generative learning to address the issue(s) and determine appropriate implementation strategies to meet the goal(s) in their localized context and culture (Lueddeke, 2005). Policy

makers need to collaborate with the implementation community to address the defined issue appropriately. The challenge is the overwhelming amount of change that needs to be addressed and the amount of time and energy it demands of both the policy makers and implementation community to engage in authentic consultation. However, without authentic engagement, creative and unique solutions to issues remain undiscovered.

In a turbulent world, with the effects of globalization and disruptive technologies, the understanding of mechanisms that engender and support healthy and human-friendly processes that lead to sustainable outcomes is critical. I postulate that in many environments, but certainly in the environment of higher education, change that takes the form of action research holds the promise for such positive change. Such an approach to change allows actors to work collectively to uncover barriers to their goal(s) and address them appropriately (Heracleous, 2007, p. 255).

Working collectively enables agents the opportunity to construct a vision to which they have commitment and one that can generate passion and motivation that supports the morphogenesis of social structures and cultural components (Shilling, 2002, p. 749). "Agents have to diagnose their situations, they have to identify their own interests and they must design projects they deem appropriate to attaining their ends" (Archer, 2008, p. 9). Through reflexivity in the change process, actors can redefine their beliefs and desires (Archer, 2008; Mutch, 2004). Using action research as a methodology for dealing with change allows the university to engage in a more democratic and inclusive approach to change. Democratic change through an action research model allows faculty to engage in change as a professional challenge rather than fearing it as a top-down threat to the status quo (Evans, 2005). Supporting action research as a methodology has the potential to create a change open departmental culture. University and departmental leaders need to be trained and supported in their action research efforts, and reports of the activities need to be communicated throughout

the university to honor this work as a high status, professional activity that adds value to the broader university environment. As such, action research can use the power of departmental structures and cultures as powerful mechanisms of change (Walvoord, Fassler, Kirwan, & Smith, 2005).

Contribution and Recommendations for Further Research Opportunities

This study contributes to the research literature, both methodologically and substantively, using a critical realist perspective and analytical and explanatory frameworks to address strategic change through project management elements in a higher education institution.

The adaptation of Pawson and Tilley's (2001) Context, Mechanism, and Outcome (CMO) analytical construct to include cultural components created the opportunity to better understand the forces at play in the departments in this study. Use of this modified model could enhance evaluation research that employs it by providing understanding of the complex effects of culture on program implementation. Further, the inclusion in the analysis of both cultural and social-structural mechanisms analogously illustrates Archer's (2006) contention that a deeper understanding and more nuanced explanation develops with this type of analysis.

Comparing three different departments embedded in the same institutional context provided the opportunity for insights into the complex interrelationship of project management mechanisms in different contexts. Research about change in contextualized environments is needed to better understand how the effects of change mechanisms' effects are realized in the complex causal configurations that can be operating in different contexts (Pettigrew, Woodman, & Cameron, 2004, p. 698).

Additionally, overlaying the concept of morphogenesis to create timelines led to greater understanding of the emergence of project management mechanisms during the three years of the strategic change implementation. The investigation into the temporal nature of the change implementation revealed the organic, unfolding nature of the expectations of the outcomes of the strategic change initiative and adaptation of the various departments to processes and products of the change initiative. More research is called for that recognizes the temporal nature of change (Pettigrew, et al., 2004, p. 700). Further study needs to be done to reveal whether this phenomenon of an unfolding, organic vision occurs in other strategic change initiatives. Other questions also arise: Is this phenomenon limited to higher education strategic change initiatives? Is this organic vision typical of technology implementations? How can such an understanding of the nature of change as organic be harnessed for transformation?

Further study would add to the realist temporal evidence regarding the morphogenetic approach advocated by Margaret Archer (2006). A second study could be done to investigate the nature of any socio-structural and cultural changes that have occurred in the departments at higher education due to the modularization initiative in the time since the completion of the implementation.

Further research that applies the departmental causal configurations revealed in this study to other initiatives within the same departments and institution to determine how the causal configuration changes or what constituents are persistent in other change initiatives in these departments would add to the knowledge about change in higher education.

I previously postulated that in the environment of higher education, change that takes the form of action research holds promise. The opposite is also true: action research about change holds great promise for better understanding of how change can be most effectively implemented in higher education environments (Pettigrew, et al, 2004, 705). An action

research study with the morphogenetic analytical frame would provide rich data about both the efficacy of action research as a modality for change in higher education and the nature of change in higher education.

Technology may have unique emergent powers that we are just starting to understand (Mutch, 2004; Orlikowski, 1998, 2011). Introduction of a strategic change that involves technology has emergent aspects that we are only beginning to acknowledge. In the past, technology was often treated as just another element in the overall change environment, but it is more than that. Change agents need to be aware of the "dual nature" of technology (Orlikowski, 1998) to impact human responses to change. Is technology simply an enabling tool? Or is it more complex? Does it open up space for flexibility and innovation in organizations? Although this study did not foreground the effects of the modularization software, its effects were felt by all the departments. The ability of the modularization software to allow faculty to see others' curriculum could encourage more cooperative and collaborative relationships in the college (Schultze & Orlikowski, 2007). Alternatively, the modularization software could be used to monitor faculty activities and productivity. Much more research needs to be done in the area of technology and change in organizations from a realist perspective to flesh out the nuances of the emergent powers of technology.

This research contributes to the literature on change in higher education through project management mechanisms by uncovering some of the cultural components and socio-structural elements that affect episodic and ongoing change. This work is critical if we are to address the "alienation from, opposition to, and effective change of, curricular and other policies" (Trawler, 2004 p. 152). The study revealed the need for change leaders to be aware of status need when working with higher education faculty and to honor those needs in the methodology of change management. Further, the strong effects of contextual elements like collective previous employment experience (O'Connor, 2003) or preferred teaching and

learning logic that were uncovered in this study are also important factors to consider. The tracing of causal mechanisms in this study adds to our knowledge of how regularities in change implementation come about, thereby contributing to the burgeoning theory on organizational change (Freyberg-Inan, 2009, p. 8). Further research should be done on change at the department level to uncover more departmental causal configurations and to discern if there are "typical" causal configurations or if certain components regularly occur in departmental causal configurations. An expansion of this study would be to study change in the remaining departments of the institution to see what differences and similarities might be found across the institution. Further study could be done on change in departments of Health, Hospitality, and Business at other universities to determine if there are regularities in causal configurations that are common to discipline-specific academic departments. Various families of configurations can be compared to build typologies and, over time, theory.

The use of a critical realist analytical framework does not reduce the complexity of our understanding of change to enable a typical step-by-step prescriptive model of change processes such as strategic planning processes suggest. Rather, the use of critical realism highlights the contingent, organic, and systemic nature of change. The nature of change points to the need for change processes that rely heavily on collaborative, constructivist processes. Lueddeke's (2005) model incorporates elements that address the complex nature of change with processes that are well-suited to the higher education environment. Further the adaptive and generative processes encompassed in the Adaptive-Generative Development model address the agency-level, action-formation mechanisms that so powerfully affect change implementation.

References

- Ackroyd, S. (2007). Methodology for management and organisation studies: Some implications of critical realism. In S. Fleetwood & S. Ackroyd (Eds.). *Critical realist applications in organisation and management studies* (pp. 137-163). London, GB: Routledge.
- Alvesson, M., & Sveningsson, S. (2006). Good visions, bad micro-management and ugly ambiguity: Contradictions of (non-)leadership in a knowledge-intensive organization. *Organization Studies*, 24(6), 961-988.
- Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press.
- Archer, M. (1996a). *Culture and agency: The place of culture in social theory (Revised Edition)*. Cambridge University Press.
- Archer, M. (1996b). Social integration and system integration: Developing the distinction. *Sociology*, 30(4), 679-699.
- Archer, M. (2003). *Being human: The problem of agency*. Cambridge University Press.
- Archer, M. (in press,). *The internal conversation: Mediating between structure and agency*. Cambridge University Press.
- Association for Project Management. (2003). APM body of knowledge (5th ed.). Buckinghamshire, England: Author.
- Baguley, P. (2002). Project management. London: Hodder & Stoughton.
- Balogun, J., & Johnson, G. (2008). From intended strategies to unintended outcomes: The impact of change recipient sensemaking. *Organization Studies*, 26(11), 1573-1601.
- Barrett, M., Grant, D., & Wailes, N. (2009). ICT and organizational change. *The Journal of Applied Behavioral Science*, 42(1), 6-21.

- Baume, C, Martin, P., & Yorke, M. (Eds.). (2005). Managing educational development projects: Effective management for maximum impact. London: Kogan Page.
- Becher, T., & Trawler, P.R. (2004). Academic tribes and territories (2nd ed.). Philadelphia, PA: The Society for Research into Higher Education & Open University Press.
- Birnbaum, R. (2003). The life cycle of academic management fads. *The Journal of Higher Education*, 71(1), 1-16.
- Blenkin, G.M., Edwards, G., & Kelly, A.V. (2000). Perspectives on educational change. In A. Harris, N. Bennett & M. Preedy, (Eds.). *Organizational effectiveness and improvement* (Ch. 20, pp 216-230). Philadelphia, PA: Open University.
- Bridges, W. (1989). Managing organization transitions. *Organizational Dynamics*, 75(1), 24-33.
- Bridgman, T., & Willmott, H. (2009). Institutions and technology: Frameworks for understanding organizational change—The case of a major ICT outsourcing contract. *The Journal of Applied Behavioral Science*, 42(1), 110-126.
- Brown, L, Marinez, M., & Daniel, D. (2005). Community university leadership preparation: Needs, perceptions, and recommendations. *Community University Review*, 30(1), 45-73.
- Bushher, H., & Harris, A. (2002). Leadership of school subject areas: Tensions and dimensions of managing in the middle. *School Leadership & Management*, 19(3), 305-318.
- Calabrese, R., & Shoho, A. (2003). Recasting educational administration programs as learning organizations. *International Journal of Educational Management*, 14(5), 210-215.
- Chandler, J., Barry, J., & Clark, H. (2005). Stressing academe: The wear and tear of the new public management. *Human relations*, 55(9), 1051-1069.

- Christofilis, T., & Kousathana, M. (2005). Models in science teaching. Available online at http://www.ihpst2005.leeds.ac.uk/papers/Christofilis_Kousathana.pdf. Retrieved May 4, 2011.
- Connell J., Lynch, C, & Waring, P. (2004). Constraints, compromises and choice: Comparing three qualitative research studies. *The Qualitative Report* 6(4). Available online at <http://www.nova.edu/ssss/QR/>. Retrieved May 14, 2011.
- Constantinidies, P., & Barrett, M. (2009). Large-scale ICT innovation, power, and organizational change. *The Journal of Applied Behavioral Science*, 42(1), 76-90.
- Cleland, D. R., & King, W. R. (1986). Project management handbook (3rd ed.). New York: Van Nostrand Reinhold.
- Corbett, H.D. (1994). Community influence and school micropolitics: A case example. In J. Blase (Ed.), *The politics of life in schools: Power, conflict, and cooperation*. Thousand Oaks, CA: Corwin Press, Inc.
- Curry, B.K. (1994). Institutionalization: The final phase of the organizational change process. *Administrator's Notebook* 35(1). Chicago IL: University of Chicago, Midwest Administration Center.
- Danermark, B. (2005). Interdisciplinary research and critical realism: The example of disability research. *Journal of Critical Realism*, 5(1), 56-64.
- Danermark, B., Ekstrom, M., Jakobson, M., & Karlsson, J. (2005). *Explaining Society: Critical realism in the social sciences*. Florence, KY, USA: Routledge.
- DeCarlo, D. (2007). Extreme project management. San Francisco: Jossey-Bass.
- Deem, R. (2006). Managing contemporary UK universities—Manager-academics and new project managerialism. *Academic Leadership* 1(3).
- Domingues, J. (2003). Social integration, system integration and collective subjectivity. *Sociology* 34(2) 225-241.

- Du Plessis, Y. (2007). The development of an assessment tool for measuring project management culture in organizations. Unpublished doctoral dissertation, University of Pretoria, South Africa.
- Eddy, P., & VanDerLinden, K. (2009). Emerging definitions of leadership in higher education: New visions of leadership or same old "hero" leader? *Community University Review* 34(1) 5-26.
- Edwards, J. (2006). Department chair roles in the community university. Unpublished doctoral dissertation, North Carolina State University.
- Ekstedt, E., Lundin, R. A., Soderholm, A., & Wirdenius, H. (2002). Neo-industrial organising: Renewal by action and knowledge formation in a project-intensive economy. London: Routledge.
- Ekstrom, M. (1995). Causal explanation of social action: The contribution of Max Weber and of critical realism to a generative view of causal explanation in social science. *Acta Sociologica: Journal of the Scandinavian Sociological Association* 35, 107-122.
- Elrod, P.D., & Tippett, D. (2005). The "death valley" of change. *Journal of Organizational Change*, 15(3), 273-292.
- Fairclough, N. (2008). Peripheral vision: Discourse analysis in organization studies: The case for critical realism. *Organization Studies*, 26(6), 915-939.
- Ford, R. C., & Randolph, W. A. (1995). Cross-functional structures: A review and integration of matrix organization and project management. *Journal of Management*, 18, 267-294.
- Fowler, G. (2008). An analysis of higher education staff attitudes in a dynamic environment. *Tertiary Education and Management* (11), 183-197.
- Frame, J. D. (2006). Managing projects in organizations: How to make the best use of time, techniques, and people. San Francisco: Jossey-Bass.

- Freyberg-Inan, A. (2009). Still looking for the third way? How about 'critical realist social process micro-mechanics? *Concepts & Methods*, 2(1), p. 8-10.
- Fuchs, S. ((2004). Beyond agency. *Sociological Theory*, 19(1) 24-40.
- Fullan, M. G. (1997). Coordinating top-down and bottom-up strategies for educational reform. *Systemic Reform: Perspectives on Personalizing Education*, September 1994,
- Fullan, M.G. (2004). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Gilley, J. W., & Cunich, A. M. (2001). Partnering to maximize organizational performance. Cambridge, England: Perseus.
- Gleeson, D., & Shain, F. (2002). Managing ambiguity: between markets and managerialism - a case study of 'middle' managers in further education. *The Sociological Review*, 47(3). 461-490.
- Goodrick, E., & Salancik, G. (1999). Organizational discretion in responding to institutional practices: Hospitals and Cesarean births. *Administrative Science Quarterly*, 41, 1-28.
- Gray, C. F., & Larson, E. W. (2003). Project management: The management process. Boston: McGraw-Hill.
- Greenwood, R., Suddaby, R., & Hinings, C. (2008). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *Academy of Management Journal*, 45(1), 58-80.
- Guba, E. (1984). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communications and Technology Journal* 29 (2) 75-91.
- Hall, G.E., & Hord, S.M. (2007). *Implementing change: Patterns, principles, and potholes*. Toronto, ON: Allyn & Bacon.
- Harrison, D., & Easton, G. (2007). Methodology for management and organisation studies: Some implications of critical realism. In S. Fleetwood & S. Ackroyd (Eds.). *Critical*

- realist applications in organisation and management studies* (pp. 194-210). London, GB: Routledge.
- Heck, R.H., Johnsrud, L.K., & Rosser, V.J. (2006). Administrative effectiveness in higher education: Improving assessment procedures. *Research in Higher Education*, 41(6), 663-684.
- Hedstrom, P. (2008). *Dissecting the social: On the principles of analytical sociology*. Cambridge University Press.
- Hedstrom, P., & Swedberg, R. (2001). *Social mechanisms: An analytical approach to social theory*. Cambridge University Press.
- Heifetz, R. (2000). *Leadership without easy answers*. The Belknap Press of Harvard University Press, Cambridge, Ma.
- Hilosky, A., & Watwood, B. (2003). Transformational leadership in a changing world: A survival guide for new chairs and deans. In *Walking the tightrope: The balance between innovation and leadership*. Proceedings of the 6th Annual International Conference of the Chair Academy, Reno, NA, February 12-15, 2000. (ERIC Document Reproduction Service No. ED 407 027.)
- Hoag, B.G., Ritschard, H.V., & Cooper, G.L. (2008). Obstacles to effective organizational change: The underlying reasons. *Leadership & Organization Development Journal* 23(1), 6-15.
- Hoff, K.S. (2005). Leaders and managers: Essential skills required within higher education. *Higher Education* 38, 311-331.
- Hoogenboom, M., & Ossewaarde R. (2008). From iron cage to pigeon house: The birth of reflexive authority. *Organization Studies* 26(4), 601-619.

- Hord, S.M. (1998). Facilitative leadership: The imperative for change. A paper prepared for Southwest Educational Development Laboratory. Supported by the Office of Educational Research and Improvement, U.S. Department of Education.
- Inglis, T. (2003). Empowerment and emancipation. *Adult Education Quarterly*, 48(1), 3-18.
- Isabella, L.A. (1996). Evolving interpretations as a change unfolds: How managers construe key organizational events. *Academy of Management Journal* 33(1), 7-41.
- Johnson, R. A., Kast, F. E., & Rosenzweig, J. E. (1966). The theory and management of systems. New York: McGraw-Hill.
- Jones, D.R., & Holdaway, E.A. (2001). Expectations held for department heads in postsecondary institutions. *Alberta Journal of Educational Research*, 41(2), 188-212.
- Jones, G.R., Mills, A.J., Weatherbee, T.G., & Mills, J.H. (2009) *Organizational theory, design, and change*. Toronto, ON: Pearson Education Canada.
- Joseph, J. (2006). Re-stating hegemonic theory. *Journal of Critical Realism*, 2(1), 127-137.
- Julius, D.J., Baldrige, J.V., & Pfeffer, J. (2005). Determinants of administrative effectiveness: Why some academic leaders are more influential and effective than others. *The Canadian Society for the Study of Higher Education: Professional File No. 10*.
- Kerzner, H. (2000). Project management: A systems approach to planning, scheduling and controlling. New York: Van Nostrand Reinhold.
- Kerzner, H. & Thamhai, H. (1987). Project management for small and medium-size business. New York: Van Nostrand Reinhold.
- Kezar, A. (2004). Exploring new avenues for leading community universities: The paradox of participatory models. *Community University Review*, 25(4), 75-87.

- Kezar, A. (2007). Understanding and Facilitating Change in Higher Education in the 21st Century. *ASHE-ERIC Higher Education Report*, 28(4), 1-147. (ERIC Document Reproduction Service No. ED 457763.)
- Kezar, A., & Eckel, P. (2008a). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts? *The Journal of Higher Education*, 73(4), 435-460.
- Kezar, A. & Eckel, P. (2008b). Examining the institutional transformation process: The importance of sensemaking, interrelated strategies, and balance. *Research in Higher Education*, 43(3), 295-328.
- Kirkegaard, H. (2000). Improving accounting reliability: Solvency, insolvency, and future cash flows. Westport, CT: Quorum Books.
- Kolb, D.A. (1987). Learning styles and disciplinary differences. In A. Chickering (Ed.). *The Modern American University*. San Francisco, Jossey Bass.
- Laage-Hellman, J. (2000). Business networks in Japan: Supplier-customer interaction in product development. London: Routledge.
- Labrosse, M. (2010). Best practices for the public sector: Organizations can use a standard system of simple techniques - Embedded project management best practices to boost personal and collaborative productivity. *The Public Manager*, 36(2), 25.
- Lawson, C. (2004). Competence theories. In S. Fleetwood & S. Ackroyd (Eds.). *Critical realist applications in organisation and management studies* (pp. 235-251). London, GB: Routledge.
- Levin, J. (2004). Making sense of organizational change. In *Organizational Change in the Community University: A Ripple or a Sea Change?* (pp. 1-4). *New Directions for Community Universitys*, No. 102 26(2). San Francisco, CA: Jossey-Bass.

- Levin, J. (2006). Students beyond the margins. A paper presented at the annual conference of the Association for the Study of Higher Education, Portland, Oregon.
- Levin, J., Kater, S., & Wagoner, R. (2009). *Community college faculty: At work in the new economy*. Gordonville, Va: Palgrave Macmillan.
- Lewis, J. P. (2001). *Mastering project management*. New York: McGraw-Hill.
- Lientz, B. P. & Rea, K. P. (2001). *Project management for the 21st century*. San Diego: Academic Press.
- Lindle, J. (2005). What can the study of micropolitics contribute to the practice of leadership in reforming schools? *School Leadership and Management*, 19(2): 171-178.
- Lueddeke, G. (2005). Toward a constructivist framework for guiding change and innovation in higher education. *Journal of Higher Education* 70(3), 235-260.
- Maile, C. & Bialik, D. (1987, July). New product management: In search of better ideas. *Journal of Small Business Management*, 40-48.
- Marshall, C. & Scribner, J.D. (1997). "It's All Political" Inquiry into the micropolitics of education. *Education and Urban Society* 23(4), 347-355.
- Martin, V. (2005). *Managing project in health and social care*. New York: Routledge.
- McArthur, R. (2008) Democratic leadership and faculty empowerment at the community university: A theoretical model for the department chair. *Community University Review*, 30(3), 1-10.
- McPhail, C. (2011). Leadership by culture management. *Leadership Abstract*. Available online at <http://www.league.org/publication/abstracts/leadership/labs1002.html>. Retrieved May 18, 2011.
- Merriam, S. (1991). *Case study research in education. A qualitative approach* (1st ed.). San Francisco, CA: Jossey Bass.

- Merriam, S. (2000). Case studies as qualitative research. In *Case study research in education. A qualitative approach* (2nd ed.) (pp. 26-43). San Francisco, CA: Jossey Bass.
- Miller, H. (2001). Managing academics in Canada and the United Kingdom. *International Studies in Sociology of Education* 8(1), 3-24
- Mirrlees, J. A. (1977). Project appraisal and planning for developing countries. New York: Basic Books.
- Moren, S. & Blom, B. (2006). Explaining human change: On generative mechanisms in social work practice. *Journal of Critical Realism*, 2(1), 37-60.
- Munk-Madsen, A. (2008, October 26). Define project. Paper presented at the Proceedings of the 28th Information Systems Research Seminar in Scandinavia. Abstract retrieved May 15, 2011, from <http://wwwold.hia.no/iris28/Docs/IRIS2028-1039.pdf>
- Montez, J.M. Wolverton, M., Gmelch, W. (2009). The roles and challenges of deans. *The Review of Higher Education* 26(20), 241-266.
- Morgan, G. (2004). *Images of organization: The executive edition*. Thousand Oaks, CA: Sage.
- Moren, S., & Blom, B. (2006). Explaining human change: On generative mechanisms in social work practice. *Journal of Critical Realism*, 2(1), 37-60.
- Murray, J., & Murray, J. (2002). Job dissatisfaction and turnover among two-year university department/division chairpersons. *The Olympics of leadership: Overcoming obstacles, balancing skills, taking risks*. Proceedings of the 5th Annual International Conference of the National Community University Chair Academy, Phoenix, AZ, February 14-17, 2002. (ERIC Document Reproduction Service No. ED 394 579.)
- Mutch, A. (2004). A process too far: Once more on the nature of management. Unpublished paper, Nottingham Trent University. Available online at <http://www.nbs.ntu.ac.uk/staff/mutchaf/lab98.htm>. Retrieved May 16, 2011.

- Mutch, A., Delbridge, R., & Ventresca, M. (2009). Situating organizational action: The relational sociology of organizations. *Organization*, 13(5), 607-625.
- Myers, I. & Myers, P. (2001). *Gifts differing: Understanding personality type*. Palo Alto, CA: Consulting Psychologists Press.
- Nicholas, J. (2000). *Managing business and engineering projects: Concepts and implementations*. Englewood Cliffs, NJ: Prentice-Hall.
- O'Connor, E. (2003). Plotting the organization: The embedded narrative as a construct for studying change. *The Journal of Applied Behavioral Science*, 36(2), 174-192.
- Orlikowski, W. (1998). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science* 3(3), 398-427.
- Orlikowski, W., & Yates, J. (2011). ICT and organizational change. *The Journal of Applied Behavioral Science* 42(1), 127-134.
- Paradis, G. D. (2011). *Distributed leadership and supervision in community universities: An action research approach*. Unpublished doctoral dissertation. University of Alberta.
- Patton, M. Q. (2005). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage.
- Pawson, R. (1999). Theorizing the interview. *British Journal of Sociology*, 47(2), 295-314.
- Pawson, R., & Tilley, N., (2001). *Realistic evaluation*. Thousand Oaks, CA: Sage.
- Pettigrew, A., Woodman, R., Cameron, K. (2004). Studying organizational change and development challenges for future research. *Academy of Management Journal*, 44(4), 697-713.
- Phillips, N., & Brown, J.L. (1996). Analyzing communication in and around organizations: A critical hermeneutic approach. *Academy of Management Journal* 36(6), 1547-1555.
- Pielstick, C. (2001). The transforming leader: A meta-ethnographic analysis. *Community University Review*, 26(3), 15-34.

- Poole, W. (2004). The teacher unions' role in 1990's educational reform: An organizational evolution perspective. *Educational Administration Quarterly*, 37(2), 173-196.
- Project Management Institute (PMI). (2007). A guide to the project management body of knowledge (PMBOK® guide). (3rd ed.). Newton Square, PA: Author.
- Reiss, G. (1998). Project management demystified: Today's tools and techniques. London: E & FN Spon.
- Rhoades, G. (2003). Who's doing it right? Strategic activity in public research universities. *The Review of Higher Education* 24(1), 41-66.
- Rhoades, G., & Slaughter, S. (1994). Professors, administrators, and patents: The negotiation of technology. *Sociology of Education*, 64(2): 65-77.
- Sayer, A. (1995). *Method in social science: A realist approach (2nd Edition)*. London, GB: Routledge.
- Sayles, L. R. (1989). Leadership: Managing in real organizations. New York: McGraw-Hill.
- Schultze, U., & Orlikowski, W. (2007). A practice perspective on technology-mediated network relations: The use of internet-based self-serve technologies. *Information Systems Research* 15(1), 87-106.
- Scott, D. (2003). *Realism and Educational Research: New Perspectives and Possibilities*. London, UK: Routledge.
- Shenhar, A. J., Dvir, D., Levy, O., & Maltz, A. C. (2004). Project success: A multi dimensional strategic construct. *Long Range Planning*, 34, 699-725.
- Shenhar, A. J., Milosevic, D., Dvir, D., & Thamhai, H. (2010). Linking project management to Business strategy. Newton, PA: Project Management Institute.
- Sissel, P. (2004). Thinking politically: A framework for adult and continuing education. In C. Hansman & P. Sissel (Eds.), *Understanding and negotiating the political landscape of adult education*. San Francisco: Jossey Bass.

- Smaling, A. (2003). Inductive, analogical, and communicative generalization. *International Journal of Qualitative Methods*, 2(1).
- Smith, N. (Ed.). (2005). *Engineering project management*. Oxford: Blackwell.
- Smith, A.B., & Stewart, G.A. (2005). A statewide survey of new department chairs: Their experiences and needs in learning their roles. In *Preparing Department Chairs for Their Leadership Roles* (pp 29-37). *New Directions for Community Universitys*, No. 105 27(1). San Francisco, CA: Jossey Bass.
- Spangler, M.S. (2005). The practitioner's guide to midlevel management development. In *Preparing Department Chairs for Their Leadership Roles* (pp 21-28). *New Directions for Community Universitys*, No. 105 27(1). San Francisco, CA: Jossey Bass.
- Stake, R. (1998). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. (2006). Case studies. In Denzin, N.K. (ed.) *The handbook of qualitative research*, (2nd edition). Thousand Oaks, CA: Sage.
- Standish Group International. (1997). *The Chaos Report 1994*. Retrieved May 13, 2011, from <http://standishgroup.com/>
- Stark, J.S. (2005). Testing a model of program curriculum leadership. *Research in Higher Education* 43(1), 59-82.
- Stark, J.S., Briggs, C.L., & Rowland-Poplowski, J. (2005). Curriculum leadership roles of chairpersons in continuously planning departments. *Research in Higher Education* 43(3), 329-356.
- Stuckenbruck, L. (1984). *The implementation of project management: The professional's handbook*. Reading, MA: Addison-Wesley.
- Taylor, P., & Bain, P. (2007). Humour and subversion in two call centres. In S. Fleetwood & S. Ackroyd (Eds.) *Critical realist applications in organisation and management studies* (pp. 274-297). London, GB: Routledge.

- Thomas, J., Delisle, C, Jugdev, K., & Buckle, P. (2005). Selling project management to senior executives. Newton, PA: Project Management Institute.
- Tierney, W.G. (1995). Cultural politics and the curriculum in postsecondary education. *Journal of Education* 171(3), 72-88.
- Tierney, W.G. (2003). Organizational socialization in higher education. *Journal of Higher Education*, 68(1), 1-16.
- Tierney, W.G. (2005). *Building the responsive campus: Creating high performance universitys and universities*. Thousand Oaks, CA: Sage.
- Trader-Leigh, K. (2005). Case study: Identifying resistance in managing change. *Journal of Organizational Change Management*, 15(2), 138-156.
- Trawler, P. (2004). Captured by the discourse? The socially constitutive power of new higher education discourse in the UK. *Organization*, 8(2), 183-201.
- Turner, J. (1996). Handbook of project-based management: Improving the process for achieving strategic objectives. London: McGraw-Hill.
- Wagner, E., & Newell, S. (2009). Repairing ERP: Producing social order to create a working information system. *Journal of Applied Behavioral Science* 2006, 42(40), 40-57.
- Wallace, M., & Hall, V. (1997). Towards a cultural and political perspective. *Inside the SMT: Teamwork in secondary school management* (Chapter 2). London: P. Chapman Publishing.
- Weick, K. (1998). Sensemaking in organizations. London: Sage.
- Weick, K. (2004). Making sense of the organization. Oxford: Blackwell Business.
- Weick, K., & Quinn, R. (2002). Organizational change and development. *Annual Review of Psychology* (50), 361-386.
- Weis, L. (1988). Faculty perspectives and practice in an urban community university. *Higher Education*, 14(5): 553-574.

- West, M. (2002). Micropolitics, leadership and all that....The need to increase the micropolitical awareness and skills of school leaders. *School Leadership & Management* 19(2), 189-196.
- Wheatley, M. J. (1992). *Leadership and the new science: Learning about organizations from an orderly universe*. San Francisco, CA: Berrett-Koehler Publishers.
- Willmott, R. (2002). Structure, agency and the sociology of education: Rescuing analytical dualism. *British Journal of Sociology of Education*, 20(1): 5-21.
- Wysocki, K., Lewis, J., & DeCarlo, D. (2004). *The world class manager: A professional development guide*. Cambridge, England: Perseus.
- Yamasaki, E. (2002). Understanding managerial leadership as more than an oxymoron. In *Preparing Department Chairs for Their Leadership Roles* (pp 67-82). *New Directions for Community Universitys*, No. 105 27(1). San Francisco, CA: Jossey Bass.
- Yin, R. K. (1984). The case study crisis: Some answers. *Administrative Science Quarterly*, 26, p. 58-65.
- Zell, D. (2006). Organizational change as a process of death, dying and rebirth. *The Journal of Applied Behavioral Science*, 39(1), 73-96.

APPENDIX A – INTERVIEW GUIDE

General

1. What causes organizational change? How does change occur here at the university? Do you think that the changes that happen at the university support the university's strategic vision?
2. Is change at the university recorded in the business plan? Are there strategies in the business plan to operationalize the business plan?
3. Describe for me the intended consequences that happen as a result of the implementation of the business plan strategies. Are there any unintended consequences that happen as a result of strategies to support strategic vision
4. How are you called to engage with these activities - what's the protocol? How do you first find out about the activities that you'll be called to implement?
5. How do you communicate these activities to your instructors?
6. Do you experience competing priorities? How do you plan for and mediate amongst competing priorities?
7. In your experience, do individuals in your department generally engage with change or do they resist change?
8. In your experience, do individuals in your department generally engage with change or do they resist change? Do you think the dept's past history with the Total Quality Management strategic change implementation affects individuals' openness to strategic change implementation? How?

Catalysts to Change Engagement - General

9. What strategies do you use to help others to "own" or engage with a change strategic initiative. Do you have any strategies that you haven't tried, but would like to try to help your department effectively engage with change?
10. Do you think that anyone can truly Own' a change which is decreed and implemented by others? Is there a better way?
11. In your opinion, what strategies enable the effective implementation of a strategic change initiative across multiple departments/schools here at the university?

Departmental Goal

12. When you think your department's ideal status (reputation, distinguishing features) would be in relation to other departments at the university?
13. How would you like your department spoken about by the rest of the university?
14. Do you think your staff would answer these two questions in the same way you have?
How do you know - what is the evidence?

Technical and Political Factors for the Modularization Case

15. Was there enough support given to your department to be able to effectively engage with the Modularization Project? (Technical support, training, workload relief, etc.)
16. Did you believe that engagement with the Modularization Project would affect your prestige or power in your department or the wider the university context? Did you consider what other people (your Dean, the Modularization team, administration, your departmental staff) would think of you if you supported the change (or resisted the change)? In your opinion, did people in your department perceive that engagement with the Modularization Project would affect their prestige or power in the department? How?

17. Did you believe that engagement with Modularization would affect your career opportunities -potential for advancement? Did people in your department perceive that engagement with Modularization would affect their career opportunities or possibility of advancement?

18. Was there any recognition given to you for your engagement with the Modularization Project? Was there any recognition given to folks in your department to praise them (or show disappointment) about their level of engagement with the Modularization Project?

19. Were people who engaged with the Modularization Project admired and complimented or shunned by their peers?

Individual Leaders' Engagement with Change

20. What did you think of the Modularization teams' implementation strategy? (Remember - Modularization breakfast - communication of Program Map activity - move program map to the curriculum database - implement basic computer training for those folks who need it - ask PH's/Deans to id people who will receive Modularization training the first year - setting Modularization goals of 20% Yr 1, 60%, 100%).

21. How did the Modularization teams' implementation strategy affect your decision to encourage your staff to engage with Modularization? Did you adopt the Modularization teams' implementation plan for your dept?

22. How did your perceptions of the Modularization Project change during the implementation of the strategic change and integration of the new processes and procedures into the organizational context? Can you id critical factors that caused you to decide to engage with the Modularization Project? (For example: Modularization status reports, requirement/opportunity to create course outlines in the curriculum database, requirement to

publish course outlines/courses to Modules Online, requirement for a course to be modularized and then loaded to get a WebCT course, etc.)

23. What factors do you think would have caused you to engage more readily with Modularization?

Change Implementation Strategy

24. How did you devise an initial implementation strategy for the Modularization Project? What special features of your department did you consider as you designed your change implementations strategy?

25. How did you monitor progress with the implementation? Did your implementation plan include the strategies to monitor progress? Did your strategy for monitoring progress change over the term of the project?

26. Did your implementation strategy change over the past four years? If so, how did it change? What factors caused the implementation strategy to be altered?

27. How did the individuals in your department respond to the implementation strategy? How did your strategy affect the perceptions of the individuals in your department about Modularization?

Context/Cultural Factors

28. What unique characteristics that your department has affected the level of engagement with the Modularization Project? E.g. Education level of faculty, age, gender, shared beliefs, work processes (how we do things around here).

29. What factors seemed to influence the level of engagement of faculty with Modularization?

30. Were there any individuals who seemed to influence the level of engagement of others with Modularization?

Change Leadership

31. How do you perceive the influence that leaders of change had on the level of engagement of faculty in strategic organizational change? Program Heads, Curriculum Consultants, Modularization Project Leader (myself), Dean, Academic VP, and President, anyone else?

32. How did the actions of other leaders of change affect your level of engagement with the Modularization Project?

Faculty Perceptions & Sensemaking

33. Are the members of your department cohesive in their perception of strategic organizational change? Does everyone support Modularization? Does everyone engage with Modularization to the same degree?

34. How do people make sense of the change that is asked of them? How do they rationalize their engagement with the Modularization Project? What is the "scuttlebutt" about Modularization in the department and how does it affect people's Modularization activity.

35. What kinds of stories do people in your department tell about Modularization? Tell me a "sample" story.

Resistance to Change

36. Have you observed resistance to Modularization in your department?

37. How do/did people show their resistance to Modularization?

38. Has the nature of the resistance changed over time?

39. Has it decreased/increased over time?

Tipping Point

40. Was there a point at which it seemed that the project or initiative tipped over into something that people engaged with? When did that occur? What seemed to be the catalyst for the change in attitude or behavior you observed as a "tipping point"?

41. What was the one strategy or activity that seemed to most positively affect the level of engagement of your departmental members with Modularization?

Structure and Agency

42. Did you feel that there were structures at the university - policies, departmental culture, habitual stances, etc - that either interfered with your engagement with the Modularization Project or perhaps encouraged/motivated your engagement with Modularization?

43. Do you feel that you have the ability to affect change? Do behavior/actions/conversations affect your engagement with change? Others engagement with change? Leading others to engage with change?

44. Do you spend time thinking about how to better lead change? Does your reflection enable you to better deal with change? Lead others in engagement with change?

APPENDIX B – CHANGE MODEL FOR HIGHER EDUCATION



Figure 1: Lueddeke's (2005) The Adaptive-Generative Development Model (AGDM) for guiding Change and Innovation in Higher Education.

Blank Sheet

