

Learning Organizations in Higher Education

COMPARING LEVELS OF ORGANIZATIONAL LEARNING MATURITY
OF COLLEGES AND UNIVERSITIES PARTICIPATING IN TRADITIONAL AND
NON-TRADITIONAL (ACADEMIC QUALITY IMPROVEMENT PROJECT)
ACCREDITATION PROCESSES

Diane Osterhaus Neefe

A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree with a Major in

Training and Development

Approved for Completion of 4 Semester Credits
198-570 Field Problem in Training and Development

Research Advisor

**The Graduate College
University of Wisconsin – Stout
Menomonie, WI 54751**

ABSTRACT

Diane Osterhaus Neefe

Comparing levels of organizational learning maturity of colleges and universities participating in traditional and non-traditional (Academic Quality Improvement Project) accreditation processes

<u>Training and Development</u>	<u>Dr. Julie Furst-Bowe</u>	<u>October 2001</u>
(Graduate Major)	(Research Advisor)	(Date)

American Psychological Association (APA) Publication Manual 4th Edition

Business and industry has successfully embraced the philosophy of organizational learning as tool to achieve its goals and strategic priorities.

The purpose of this study is to compare the levels of organizational learning maturity of colleges and universities participating in traditional and non-traditional accreditation processes. A survey instrument was developed to quantify managerial practices at colleges and universities relative to the integral components of a learning organization. The surveys obtained the subjective opinions of faculty at twelve colleges and universities. Six of the institutions are accredited traditionally, while the remaining six are accredited using North Central Association's alternative accreditation process, AQIP (Academic Quality Improvement Project).

Learning Organizations in Higher Education

The importance of this study is based on the awareness that higher education is facing increasing accountability standards. Colleges and universities must take a proactive approach to remain competitive. The research focus was to determine if institutions pursuing the AQIP accreditation process possessed a higher organizational learning maturity score than those utilizing the traditional accreditation process.

Learning Organizations in Higher Education

Acknowledgments

I would like to thank my colleagues at Western Wisconsin Technical College, Dr. Jerrilyn Brewer and Ms. Jane Rada, who supported me both professionally and personally as I was writing this paper. It was your support and insight helped me hone and focus my research topic.

In addition I would like to acknowledge Dr. Julie Furst-Bowe, my research advisor, and Dr. Joe Benkowski, my program director, for the gift of their professionalism and expertise. My cohort group at Fort McCoy was crucial in creating a collaborative and supportive learning classroom environment that fostered intellectual, emotional and spiritual growth. The conversations we shared in and outside the classroom provided additional insight and understanding. A special thank you to my friend classmate Barbara Larsen; I treasure the time we spent commuting...that in and of itself was a valuable learning experience.

Finally, I dedicate this project to my family. To my husband Tom and our son Kyle who encouraged me to pursue my degree and provided emotional support when this project became challenging. I am truly grateful for the sacrifices you have made on my behalf. It's my turn to give back.....

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
I	Research Problem and Objective	1
	Introduction	1
	Statement of Problem	4
	Purpose of Study	4
	Significance of Study	5
	Limitations of the Study	6
	Assumptions of the Study	6
	Definitions of Terms	6
	Summary	8
II	Review of Literature	10
	Definition of a Learning Organization	12
	Characteristics of Learning Organizations	13
	Common Themes of Learning Organizations	23
	Forces of Change in Higher Education	35
	Continuous Quality Improvement in Higher Education	37
	Accreditation in Higher Education	41
	AQIP Principles and Criteria	46
	Summary	56
III	Methodology	58
	Description of Research Methodology	58
	Research Design	59

Learning Organizations in Higher Education

<u>Chapter</u>		<u>Page</u>
III	Population Selection	61
	Instrumentation	63
	Instrument Validation	65
	Distribution of Instrument	66
	Data Collection Goals	69
	Data Processing and Analysis	70
IV	Analysis of Results	71
	Survey Participant Demographics	71
	Descriptive Statistical Analysis of Survey	76
V	Summary and Conclusions	98
	Summary of Critical Content	98
	Conclusions	100
	Discussion	102
	Further Research	106
References		107
Appendices		113
	Appendix A	114
	Appendix B	115
	Appendix C	120
	Appendix D	121
	Appendix E	124

CHAPTER I

Research Problem and Objectives

Introduction

In the early 1990's, the idea of a "learning organization" permeated leadership and management thinking. Senge was one of the finest advocates of a "Learning Organization." While the theory of a learning organization had been touted previously, Senge defined how to build a learning organization. "The organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at all levels in an organization" (Senge, 1990, p. 4).

Senge (1990) identified five disciplines considered critical to the development of a learning organization: building shared vision, team learning, personal mastery, mental models, and systems thinking. In a true learning organization, all five disciplines work together as a synergistic ensemble. No one discipline can be withdrawn without profoundly affecting the other four. The fifth discipline of systems thinking fuses all together into integrated practice and "reminds us that the whole can exceed the sum of its parts" (Senge, 1990, p. 12).

Business was receptive and eager to embrace the philosophy of a learning organization. The rapidly changing marketplace was forcing leaders to identify new ways to develop organizations that would be adept at continuous adaptation and better able to anticipate the need for change (Goh & Richards, 1997).

Garvin states, "a few farsighted executives – Ray Stata of Analog Devices, Gordon Forward of Chaparral Steel, Paul Allaire of Xerox – have recognized the link

between learning and continuous improvement and have begun to refocus their companies around it” (1993, p. 78).

Today U.S. schools are where American business was 15 to 20 years ago when increased competition was being exerted by international competition (Siegel, 2000). In the late 1980’s, American education began to explore the principles of continuous improvement, which had shown remarkable success in the business sector (Karathanos, 1999). According to Stevenson (2000), “very seldom do we refer to academe as a learning organization with knowledge ‘brokerage’ at the center of our management approach and the core of our leadership delivery” (p. 347).

The 1990’s brought increasing accountability demands to American education (Karathanos, 1999; Spanbauer, 1996). At the same time the seeds of continuous quality improvement were taking root within higher education. Based on a survey conducted by Axland in 1991, 92 universities, four-year colleges or community colleges were adopting principles of total quality management. One year later the number totaled 220 (Axland, 1992). These academic organizations realized their familiar operational environments were changing, and they were searching for new and innovative strategies to help them to remain competitive in this “new” educational environment (Lewis & Smith, 1994; Spanbauer, 1996).

By the mid-1990’s, the traditional higher education accreditation process came under scrutiny from a number of stakeholders. The higher education accreditation process has been in existence prior to World War II. The accreditation process was created to assist colleges and universities to establish standards for admission and transfer of credit. The role of traditional accreditation in higher education has been to ensure achievement

of minimum standards (McMurtrie, 2000) and to focus on the integrity of institutions' academic program (CHEA, 2001).

In the 1990's, federal agencies began requesting more proof of student academic achievement as part of the accreditation process. Colleges were requesting a more valuable re-accreditation process which took into account the new technological methods institutions were utilizing to deliver courses (McMurtrie, 2000; Eaton, 2001).

To respond to these challenges, North Central Accreditation began to explore the development of an alternative accreditation process based on continuous quality principles and the Malcolm Baldrige National Quality Award. This alternative accreditation process called AQIP (Academic Quality Improvement Project) was unveiled in April 2000 at their annual meeting (North Central Association Commission on Institutions of Higher Education [NCA], 2000). As its name indicates, the AQIP process is designed to be a continuous learning and improvement process for participating institutions (Spangehl, 2000).

AQIP has identified nine values that serve as a framework for colleges and universities: focus, involvement, leadership, learning, information, collaboration, agility, foresight, information, and integrity (NCA, 2000). AQIP considers these values vital to the institution's success in meeting their performance targets required as part of the AQIP process. North Central Association believes these AQIP values permeate "colleges and universities that have achieved a systematic approach to continuous improvement" (NCA, 2000, p. 3).

Since the AQIP values mirror many of the building blocks of learning organizations, it may be possible that institutions participating in the AQIP alternative

accreditation process possess more highly developed characteristics of learning organizations than do institutions utilizing the traditional accreditation process.

This chapter will present the statement of the problem, purpose of the study, research objectives, significance of the study, limitations, assumptions, and definition of terms.

Statement of Problem

Little is known about the relative levels of organizational learning in higher education institutions. This project will determine if colleges or universities utilizing an alternative accreditation process (i.e. Academic Quality Improvement Project or AQIP) demonstrate a higher level of organizational learning when compared to traditionally accredited institutions.

Purpose of the Study

The primary purpose of this study was to quantify, measure and compare organizational learning maturity scores of colleges and universities. The survey scores will reflect an organization's maturity related to key components of a learning organization. The survey results will be distributed to full-time faculty of twelve colleges and universities. Six of the institutions are traditionally accredited, while the remaining six are accredited using North Central Association's alternative accreditation process, AQIP (Academic Quality Improvement Project).

The results will be correlated to the institutions accreditation process, along with organizational conditions and management practices. Data will also be correlated with general institutional characteristics (technical, university, community college; private/public). Data will be used to prove or disprove the hypothesis that institutions

Learning Organizations in Higher Education

utilizing the alternative accreditation process (AQIP) possess a higher level of maturity as a learning organization when compared to traditionally accredited institutions.

Significance of the Study

The significance of the study is based on the challenges facing higher education.

Some of these challenges include:

1. Increasing demands to improve accountability
2. Decreasing external funding sources
3. Decreasing numbers of “traditional” students
4. Increasing numbers of “non-traditional” students
5. Increasing employer expectations of graduates
6. Requirements to measure student learning

Given these challenges, it is apparent that organizations will need to develop, nurture, and capitalize on their human resources to meet ongoing external challenges. In order to survive, these organizations will have to create a learning environment for their employees that foster innovative learning and problem solving within the college community. AQIP may be a tool that can be used to address these challenges, while enhancing organizational performance and simultaneously maintaining accreditation status.

Characteristics inherent in learning organizations support and align with the values within the AQIP process. As educational leaders ponder whether or not to pursue an alternative accreditation process, they may want to assess their institution’s readiness to adopt a new alternative accreditation process by first measuring their institutions maturity as a learning organization. According to Senge (1990), “an accurate picture of

Learning Organizations in Higher Education

current reality is just as important as a compelling picture of a desired future.” Thus, the learning organization indexes established in this study could be used as a “pre-test” by organizations considering the AQIP process.

Limitations of the Study

The limitations of this study are that results are limited to a cohort of six charter AQIP institutions and six traditionally accredited institutions all within North Central Association’s accreditation region. The survey was administered only to full-time faculty members.

Assumptions of the Study

The assumptions of this study were that all participants in the survey will provide honest opinions and that the faculty members surveyed will provide an accurate representation of the institution’s organizational learning index.

Definitions of Terms

For the purpose of this study the following definitions were used:

Academic Quality Improvement Project (AQIP)

An alternative accreditation model provides quality assurance by reviewing systematic organizational initiatives to improve performance. The alternative process requires institutions to identify and measure the effectiveness of their processes while projecting stretch targets to demonstrate process improvement. AQIP is based on the Malcolm Baldrige National Quality Award criteria and state quality award programs. The process incorporates systems thinking, process analysis and measurement (Quality Progress, 2000).

Accreditation

Learning Organizations in Higher Education

Accreditation is a means of self-regulation and peer review adopted by the educational community. The collegial process is intended to ensure and strengthen academic quality and the integrity of higher education, making it worthy of public confidence (Middle States Commission on Higher Education, 2001). The accreditation process is voluntary and is facilitated by one of six nationally recognized agencies (Council for Higher Education Accreditation, 2001).

External Stakeholders

Customers outside the organization. This may include students, employers, parents, taxpayers, other educational institutions, board member, and the community at large (Spanbauer, 1996).

Internal Stakeholders

Employees from within the organization such as instructors, administrators, and service department staff. For example, instructors may be the internal stakeholders of the copy center, while the copy center may be the internal customer of the purchasing department (Spanbauer, 1996).

Leadership

Leadership refers to the senior leadership of an organization. For purposes of this paper, relative to the college and university environment, leadership will be defined as the president, vice presidents and deans of a college or university.

Malcolm Baldrige National Quality Award (MBNQA)

Congress established the award program in 1987 to recognize U.S. organizations for their achievements in quality and business performance and to raise awareness about the importance of quality and performance excellence as a competitive edge. The award

is not given for specific products or services. Three awards may be given annually in each of these categories: manufacturing, service, small business, and, starting in 1999, education and health care (http://www.nist.gov/public_affairs/factsheet/baldfaqs.htm.)

Non-traditional accreditation

‘Non-traditional accreditation’ refers specifically to North Central Association’s alternative accreditation process known as the Academic Quality Improvement Project (AQIP).

North Central Association (NCA)

One of eight nationally recognized regional accrediting agencies located in Chicago, IL. North Central Association accredits colleges and universities in nineteen states. The North Central region includes the states of: Arkansas, Arizona, Colorado, Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, Oklahoma, New Mexico, South Dakota, Wisconsin, West Virginia, and Wyoming.

Stakeholders

“Individual(s) or departments who either have an effect on the process or is affected by it” (Lewis & Smith, 1994, p. 320). In the case of higher education, examples may include students, prospective students, K-12 school districts, other higher educational institutions, employers, community and employees.

Summary

Clearly, establishing a relationship between the characteristics of institutions utilizing North Contrail’s alternative accreditation pathway and those of “learning organizations” merits in-depth study and analysis. The learning organization index established as a result of this research study can be used as a “pre-test” by organizations

considering the AQIP process.

CHAPTER II

Review of Literature

The purpose of this study was to quantify, measure and compare the organizational learning maturity of colleges and universities by administering a survey to random full-time faculty of twelve institutions accredited by North Central Association. Six of the institutions are traditionally accredited, while the remaining six are accredited utilizing an alternative accreditation process, called the Academic Quality Improvement Project or AQIP.

Organizational learning is a powerful driving force, contributing to the success of many businesses in the United States (Garvin, 1993). Fierce competition has made old boundaries obsolete and dictated that new rules prevail. The learning organization model “is especially apt for those who are seeking ways to conceptualize organizational structures and process to foster continuing responsiveness, effectiveness, and efficiency in administering higher education” (Dever, 1997, paragraph 1).

In the past fifteen to twenty years, organizations have moved from total quality, to learning, to world-class continuous improvement and innovation in order to remain competitive (Hodgetts & Luthans, 1994). As Garvin (1993) eloquently declares “continuous improvement requires a commitment to learning” (p. 78).

According to Bennett & O'Brien (1994, p. 41), “to survive and prosper on the whitewater ride into the 21st century, we must adopt a new way of managing that is based on our organizations’ capacity to learn and change- consciously, continuously and quickly.” Goh and Richards (1997) maintain, “in order to stay competitive and survive, the challenge is not only to help organizations learn or increase their knowledge base but

help them to learn more effectively”.

Many private sector organizations have used their strategic planning process to optimize fiscal and human resources to achieve their mission. Organizations are focusing on visions, objectives and target results resulting in considerable change (Mitchell & McAdam, 1999). As a result, many businesses are thriving and surviving. “Over the last few years more and more public sector organizations have been facing various government-backed initiatives which are effectively forcing the organization to change from a public, service-oriented culture to a business culture” (Mitchell & McAdam, p. S653).

“Today’s prevailing market forces place intense pressure on community colleges that faculty and administrators in yesterday’s institutions could not have imaged or dealt with” (Alfred & Carter, 2000, p. 1). “Higher education will need to ensure that their organizational designs are flexible and dynamic” (Alfred & Carter, 2000, p. 4). Spanbauer states, “business and government leaders realize that in this knowledge age, a nation’s competitive advantage is directly related to how it obtains, compiles, processes, and uses information. Pressure is being applied to educators across America to change the way they do things and to improve their efficiency and effectiveness” (1996, p. xiii).

This chapter will define and develop concepts pertinent to learning organizations and higher education. The review of literature will focus on seven primary areas: (1) the definition of learning organization; (2) characteristics of learning organizations; (3) common themes of learning organizations, (4) forces of change in higher education, (5) continuous quality improvement in higher education;(6) accreditation in higher education; and (7) AQIP principles and criteria.

Definition of a Learning Organization

The term 'learning organization' is defined by organizational practitioners in a variety of ways. While a single definition is elusive, most experts view a learning organization as a constantly evolving, "living" system focused on "knowledge acquisition and improved performance" (Garvin, 1993, p. 80).

Senge (1990) defined a learning organization as "an organization that is continually expanding its capacity to create its future. For such an organization, it is not enough merely to survive. 'Survival learning' or what is more often termed 'adaptive learning' must be joined by 'generative learning' learning that enhances our capacity to create" (p.15).

Bennett & O'Brien (1994) describe a learning organization as "an organization that has woven continuous and enhanced capacity to learn, adapt and change into its culture" (p. 42).

Garvin (1993) sets forth another explanation of a learning organization, "... an organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80).

Gephart and Marsick (1996) more specifically characterize a learning organization as:

"...an organization that has an enhanced capacity to learn, adapt and change. It's an organization in which learning processes are analyzed, monitored, developed, managed and aligned with improvement and innovation goals. Its vision, strategy, leaders, values, structures, systems, processes and practices all work to foster people's learning and development and to accelerate systems-level

learning” (p. 36).

While each definition differs from one another, each addresses the common elements of futuristic thinking and learning capacity within a dynamic, living organization.

Characteristics of Learning Organizations

In his book The Fifth Discipline (1990), Peter Senge championed the ‘Learning Organization’ as the vehicle to maintain competitiveness into the twenty-first century. Senge advocated the building of learning organizations, and described them as places “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (1990, p. 3).

The learning organization philosophy has been adopted by many organizations as a strategy to meet future challenges (Goh & Richards, 1997; Gephart & Marsick, 1996; Bennett & O'Brien, 1994). “As the world becomes more interconnected and business becomes more complex and dynamic, work must become more ‘learningful’. It is no longer sufficient to have one person learning for the organization...” (Senge, 1990, p. 4).

A learning organization doesn't just happen. It is carefully and deliberately designed (Goh & Richards, 1997). A learning organization takes a proactive approach, by formulating a course of action to enhance systems-level learning, which incorporates a multi-faceted strategy (Gephart & Marsick). According to Bennett & O'Brien, “no continuous learning practice is effective unless it is adopted as part of a system” (p. 42). Successful organizations create systems and process, which support key activities and weave them into the fabric of the day-to-day business operations (Garvin, 1993).

Even after the concept of a learning organization was first advocated, organizations' experiences in understanding and applying these principles were quite limited. In the ensuing years, a number of researchers began to identify specific practices and processes that supported the philosophy of a learning organization. Goh indicates, "more important is the need to explain how to become a learning organization, not what it is" (1998, paragraph 4). Gephart and Marsick assert, "becoming a learning organization implies a proactive shift from letting events unfold toward putting in place a course of action to enhance systems-level learning. Instead of a single prescription for success, learning organizations use many different approaches" (p. 42).

The remainder of this section will discuss and highlight multiple viewpoints related to the characteristics of learning organizations. Table 1 provides an overview comparison matrix of the characteristics of learning organizations by the various works cited in this research paper.

Senge

According to Senge (1990), a learning organization embraces five key elements or disciplines: shared vision, team learning, personal mastery, 'mental models' systems thinking. Senge, Kleiner, Roberts, Ross, and Smith (1994, p. 6-7) further define the five elements or disciplines:

(1) Personal Mastery – "learning to expand our personal capacity to create the results we most desire, and creating an organizational environment which encourages all its members to develop themselves toward the goals and purposes they choose" (p. 6).

(2) Mental Models – "reflecting upon, continually clarifying, and improving our internal pictures of the world, and seeing how they shape our actions and decisions" (p.

6).

(3) Shared Vision – “building a sense of commitment in a group, by developing shared images of the future we seek to create, and the principles and guiding practices by which we hope to get there” (p. 6).

(4) Team Learning – “transforming conversational and collective thinking skills, so that groups of people can reliably develop intelligence and ability greater than the sum of the individual members’ talents” (p. 6).

(5) Systems Thinking – “a way of thinking about, and a language for describing and understanding, the forces and interrelationships that shape the behavior of systems” (p. 6-7).

Table 1

Comparison of Characteristics of Learning Organizations

	Senge	ASTD	Bennett & O'Brien	Gephart & Marsick	Goh	Kaplan & Norton	Garvin
Personal Mastery	X		X	X		X	
Mental Models/Culture/Climate	X	X	X	X	X	X	X
Shared Vision/Mission	X		X		X		
Team Learning	X		X	X	X		X
Training			X	X			
Systems Thinking	X			X			X
Leadership	X	X			X		
Management/Executive practices		X	X				
Communication Systems		X					
Information		X	X	X		X	X
Knowledge		X		X	X		X
Structure		X	X				
Change Facilitation		X					
Work Processes			X				
Rewards & Recognition		X	X				
Performance Management		X	X				

American Society of Training and Development

In 1995, the American Society for Training and Development (ASTD) began to investigate the level of knowledge and practice related to organizations. ASTD contacted international experts in the field to determine the characteristics and behaviors that might be found in a learning organization” (Gephart & Marsick, p. 36). The research resulted in the creation of a survey tool called the “Learning Organization Assessment Framework”. The tool is designed to identify “three levels or organizations of learning: individual, team or group, and organizational” (Gephart & Marsick, 1996, p. 36). It also assists the organization in identifying systems that facilitate learning.

Research using the ASTD assessment indicated the primary elements of a learning organization include: leadership and management, culture, communication systems, information, and knowledge. Secondary elements include organizational structure; change facilitation and implementation systems, which may include technology, support systems for performance and performance management (Gephart & Marsick, 1996, p. 38).

Bennett and O'Brien

According to Bennett and O'Brien (1994), a learning organization's goal is to affect change and improvement in both the business and the individual employees. Organizational learning encompasses both generative and adaptive learning. “Adaptive learning is learning for the purpose of adapting to what is known, what is now” (p. 42). An example of adaptive learning incorporates customer feedback into process improvement. “Generative learning, on the other hand, is purposeful learning and changing in order to *anticipate* what might happen – what the customer could want” (p.

42). Generative learning requires the organization to continuously seek to improve, what may appear to be satisfactory.

Bennett and O'Brien studied the practice of 25 successful corporations in the manufacturing and service areas. Examples included Xerox, Kodak, Corning, General Electric, Wal-Mart and Motorola. These corporations had declared their commitment to becoming a learning organization and were adopting processes or practices that fostered organizational learning. After compiling a list of 200 successful practices, the practices were categorized into 12 fundamental factors or 'building blocks', which supported organizational learning. The organizational building blocks identified were: strategy/vision; executive practices; managerial practices; climate; organization/job structure; information flow; individual and team practices; work processes; performance goals/feedback; training/education; individual/team development; and rewards/recognition. Bennett & O'Brien indicate, "as far as we know, no single organization excels in all 12 of these areas" (p. 49). Rather, an extremely strong practice will tend to over-come and compensate for a weakness in another area.

Gephart and Marsick

Another view suggests a learning organization is a set of interrelated systems. Interactions between those systems determine the learning organizations effectiveness (Gephart & Marsick, 1996). Gephart and Marsick (p. 38) identified six essential features of a learning organization as:

(1) Continuous learning at the systems level -- individuals share their learning in ways that enable an organization to learn by transferring knowledge across it and by integrating learning into organizational routines and actions.

(2) Knowledge generation and sharing -- emphasis is placed on creating capturing, and moving knowledge rapidly and easily so that the people that need it can access and use it quickly.

(3) Critical, systemic thinking --People are always encouraged to think in new ways and use productive reasoning skills systemically in order to see link and feedback loops, and critically in order to identify assumptions.

(4) A culture of learning -- learning and creativity are rewarded, supported, and promoted through various performance systems from the top down.

(5) A spirit of flexibility and experimentation -- people are free to take risks, experiment, innovate, explore new ideas, and generate new work processes and products.

(6) People centered -- a learning organization provides a caring community that nurtures, values, and supports the well-being, development, and learning of every individual.

Goh

“Literature on organizational learning has been elusive in providing practical guidelines or managerial actions that practicing managers can implement to develop a learning organization” (Goh, 1998, paragraph 1). Goh’s objective was to identify a “bundle of managerial practice and organizational process that differentiate learning companies” (paragraph 8). Based on literature review and contact with organizations, the author (Goh) identified five major organizational characteristics and/or management practices that are essential for learning to occur within an organization. These core strategic building blocks were established based on practices and policies, and alluded to repeatedly in the literature. These building blocks -mission and vision, leadership,

experimentation, transfer of knowledge, and teamwork and cooperation are fully described as follows (paragraph 13):

(1) Clarity and Support for Mission and Vision --A widely shared sense of the organization's mission and vision is critical in a learning organization. It provides a foundation of empowerment related to decision-making and innovation. "Without this, people will not extend themselves to take responsibility or apply their creative energies" (paragraph 15).

(2) Shared Leadership and Involvement -- A nonhierarchical organization is required to foster shared participative leadership. Employees need to be involved in organizational decisions on a regular and frequent basis. Leadership needs to be viewed as coaches and facilitators, while being open to constructive criticism.

(3) A Culture that Encourages Experimentation -- Experimentation requires a willingness and daring to question the status-quo by posing the question 'how can we do it better?' Leadership needs to allow teams to form to improve processes or become innovative. A reward system needs to be in place to promote the desired behavior. An organization's must create knowledge and capitalize on that knowledge.

(4) Ability to Transfer Knowledge Across Organizational Boundaries -- Learning from past failures or mistakes is critical to organizational growth and learning. This requires a culture of openness and trust. Successful organizations not only encourage learning from one another internally, but also create internal mechanisms such as listserves to foster this a sharing of knowledge and expertise. They practice benchmarking by identifying best practices of other organizations.

(5) Teamwork and Cooperation -- Employees bring their collective skills together

to focus on solving problems, improving processes or fostering innovation. Effective teams are composed of employees from a number of functional areas. This promotes questioning and learning and promotes a systems-thinking approach to problem-solving.

In addition to these five building blocks, Goh identified “two major supporting foundations” (paragraph 19). The first is an effective organizational design, while the second is appropriate employee skills and competencies. Both must be in alignment and supportive of the five strategic building blocks.

Kaplan and Norton

In their book Translating Strategy into Action: The Balanced Scorecard, Kaplan and Norton (1996) identified ‘learning and growth’ as one of four quadrants of a balanced organizational scorecard. Kaplan and Norton recognized organizational learning as a key element contributing to breakthrough organizational performance. Kaplan & Norton identified the three factors contributing to organizational learning as employee capabilities; information systems capabilities; and motivation, empowerment and alignment (p. 127).

(1) Employee capabilities -- “Doing the same job over and over, at the same level of efficiency and productivity, is no longer sufficient for organizational success. For an organization just to maintain its existing relative performance, it must continually improve” (p. 127). “The shift requires major reskilling of employees so that their minds and creative abilities can be mobilized for achieving organizational objectives” (p. 128).

(2) Information Systems Capabilities -- “If employees are to be effective in today’s competitive environment, they need excellent information – on customers, on internal processes, and of the financial consequences of their decisions” (p. 134). Front

line employees need accurate and timely information about each customer's total relationship with the organization" (p. 134). "Employees on the operations side of the business need rapid, timely, and accurate feedback on the product just produced or the service just delivered" (p. 136).

(3) Motivation, Empowerment, and Alignment -- This factor focuses on the organizational climate for employee motivation and initiative. "Even skilled employees, provided with superb access to information, will not contribute to organizational success if they are not motivated to act in the best interests of an organization or ... given the freedom to make decisions and take actions" (p. 136).

Garvin

Garvin (1993, p. 81) suggests "learning organizations are skilled at five main activities: systematic problem solving, experimentation with new approaches, learning from their own and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization". Garvin further defined these five activities as follows:

(1) Systematic problem solving -- Relies heavily of principles and methods of the quality movement. Three components include the scientific method of Plan, Do, Check, Act or PDCA, data based decision making, simple statistical tools such as Pareto charts and cause-and-effect diagrams. "Training is presented in 'family groups', members of the same department or business-unit team, and the tools are applied to real problems facing the groups" (p. 82). The training process provides a common vocabulary for team members while demonstrating and reinforcing a consistent approach to problem solving.

(2) Experimentation -- Utilizes a system approach in seeking new knowledge, but

Learning Organizations in Higher Education

is "...motivated by opportunities and expanding horizons, not by current difficulties" (p. 82). The activity requires an incentive system that rewards risk-taking and innovation.

(3) Learning from past experience -- "Companies must review their successes and failures, assess them systematically, and record the lessons in a form that employees find open and accessible" (p. 85). Leadership needs to view failures as opportunities for learning, by structuring the 'mistake' in a positive light for all employees to learn from.

(4) Learning from Others -- "Sometimes the most powerful insights come from looking outside one's immediate environment to gain a new perspective" (p. 86). Incorporating benchmarking techniques into the organizational fabric "ensures that best industry practices are uncovered, analyzed, adopted and implemented" (p. 86). The greatest learning occurs when looking at work processes as opposed to work results.

(5) Transferring knowledge -- Knowledge must be disseminated throughout the organization quickly and efficiently. "Ideas carry maximum impact when they are shared broadly rather than held in a few hands" (p. 87).

Common Themes of Learning Organizations

Although concepts and viewpoints may differ, common themes continue to surface throughout the various literature cited. These concepts include the elements of leadership; shared mission/vision; teamwork and team learning; knowledge sharing, organizational culture, and systems-thinking.

Leadership

What are the indicators of effective leadership in a learning organization? According to Gephart and Marsick (1996) effective leadership models learning behavior, provides systems to facilitate learning, encourages people to contribute new ideas,

ensures the sharing of knowledge and learning, allocates resources to demonstrate the organizations commitment to learning, and shares leadership.

Tribus (1997, paragraph 23) describes leadership as consisting of two facets: (1) “enunciation of a vision, an aim, an action, which moves people to do what they would not otherwise do, and to do it with passion and commitment” and (2) “acting to guarantee integrity in logistics, in resource utilization and in alignment of activities.”

According to Goh (1998), it is the role of leadership to create the necessary conditions for the organization to develop an effective learning capability. Garvin states an effective leader accomplishes this “...by creating systems and processes that support these activities and integrate [*sic*] them into the fabric of daily operations, companies can manage their learning more effectively” (p. 81).

Shared leadership is also essential in a learning organization. Shared leadership fosters a sense of empowerment for the employees (Gephart & Marsick, 1996). “In a highly competitive environment, employees are encouraged to take calculated risks, to deal with uncertainty, and to innovate. Such an environment requires a shared leadership style in a nonhierarchical organization” (Goh, 1998).

In addition, leaders must be coaches, not controllers (Goh, 1998). Leaders coach by soliciting ideas and encouraging people to contribute. Effective leadership must provide constructive feedback to employees and teams about ideas and innovation (Gephart & Marsick, 1996; Goh, 1998). This feedback will be used to assist in identifying opportunities for improvement. In the same spirit, leadership needs to be open and willing to accept constructive criticism while utilizing it for both personal and organizational growth and learning (Goh, 1998).

Senge (1990) identified three major roles for leaders, those roles being that of designer, steward, and teacher. First, the role of designer is crucial to opportunities and movements within an organization. Senge explains,

No one had a more sweeping influence than the designer. What good does it do for the captain to say, 'Turn starboard thirty degrees,' when the designer has built the rudder that will turn only to port, or which takes six hours to turn to starboard? It's fruitless to be the leader in an organization that is poorly designed (p. 341).

Secondly, the role as a steward is one of nurturing and inspiring. Leaders in a learning organization draw their inspiration from a "deep story and sense of purpose" to support their vision. Leaders share stories and relate the stories to the organization's vision. "The story is central to his ability to lead" (p. 346). To summarize the role of the steward Senge states, "Out of this deeper story and sense of purpose or destiny, the leaders develops a unique relationship to his or her own personal vision. He or she becomes a steward of the vision" (p. 346).

Thirdly, the leader as a teacher. Senge maintains "leaders can influence people to view reality at four distinct levels: events, patterns of behavior, systemic structures, and a 'purpose story'" (p. 353). Senge suggests that most leaders focus the majority of their attention on events and patterns of behavior, while leaders in a learning organization focus the majority of their attention on systemic structures and 'purpose'. By focusing on these last two components they are teaching others to do the same.

Dever (1997) explored the application of a learning organization related to educational leadership. Dever questioned whether strong presidential leadership in higher education could be compatible with the learning organization model. Dever

compared Senge’s key metaphors of leadership against the four frames of leadership – structural, human resource, political and symbolic -identified by Bolman & Deal’s paper (as cited in Dever, 1997, paragraph 5). Table 2 demonstrates the comparison created by Dever.

Table 2.

Leadership Comparison Bolman & Deal vs. Senge

<u>Bolman and Deal Frame</u>	<u>Senge Metaphor</u>
Structural	Designer
Human Resource	Teacher
Symbolic	Steward
Political	None

Bolman and Deal describe the structural component of leadership as that of a social architect, the human resource function as a nurturer of personnel, and the symbolic component as one of interpreting experience (as cited in Dever, 1997). Dever describes Senge’s leader as steward as the “keeper of the vision” (Dever, 1997, paragraph 5).

Dever suggests one reason for Senge’s political advocacy omission is because of “frank acceptance in the political process of the roles played by power, contestation, and personality:” (paragraph 6) “Political leaders ask questions such as whose support do I need? How do I go about getting it? Is this battle winnable? (Bolman & Deal, 1991, p. 437 as cited in Dever)

Shared Vision

Shared vision can be defined as “building a sense of commitment in a group, by developing shared images of the future we seek to create, and the principles and guiding practices by which we hope to get there” (Senge, et al, 1994, p. 6). Senge (1990) cites historical examples of shared visions that propelled organizations to great success. These examples included IBM’s ‘service’; Polaroid’s ‘instant photography’ and Ford’s ‘transportation for the masses’.

The development of a shared vision early on is an important step, because it fosters a longer-term orientation and demonstrates the importance of learning in relationship to the achievement of the vision (Senge, 1990). Creating a shared vision requires leadership to clearly articulate the message continuously and consistently to achieve employee commitment. In order to achieve the vision, individuals within the organization must recognize and support the larger goals of the organizations (Bennett & O'Brien, 1994). When the vision is shared and supported by employees, it can influence the learning capability of an organization (Goh, 1998).

According to Senge, a shared vision also provides the focus and energy for learning and a ‘learning organization’ cannot exist without it. “Shared visions drive their power from a common caring” (p. 206). An organization must devise a strategy to determine if their learning is assisting in achievement of their vision (Bennett & O'Brien, 1994). Creating a ‘vision statement’ is not the same as creating a ‘shared vision’ (Senge, 1990). Tribus writes, “a vision statement should be eloquent. It need not be brief, but it should not be boring. It should compel people to action” (paragraph 36).

A shared vision also fosters innovation, risks and experimentation among

employees (Senge, 1990) and empowers them to act upon priorities of the organization (Goh, 1998). Without a clear idea of the organization's mission, employees will not extend themselves, take responsibilities or apply their creative skills (Goh, 1998).

Team Work and Team Learning

Team learning is a vital element of all learning organizations (Senge, Garvin, Goh). "Team learning is the process of aligning and developing the capacity of a team to create the results its members truly desire. It builds on the discipline of developing shared vision. It also builds on personal mastery" (Senge, p. 236).

A learning organization promotes the development of entire teams. Teams, not individuals, are the key learning unit in competitive organizations (Senge) and are critical in providing quality service (Cornesky, et al). In turn, learning teams should foster and nurture other learning teams (Senge).

Team learning is not to be confused with team building. Effective team learning is organized around real teams, working on real projects, which are important to the organization guided by a trained facilitator (Tribus, 1997). Work is accomplished using cross-functional teams (Gephart & Marsick, 1996). Learning teams learn how to learn together (Senge, 1990) and Bennett and O'Brien (p. 47) indicate effective learning occurs in groups allowed to "continuously reinvent their work."

Team learning begins with the cultivation of open communication and dialogue. Team learning involves identifying patterns of interaction, which weaken or disrupt learning within the team and requires individual learning and commitment among the participants (Senge, 1990).

According to Spanbauer, teams working and learning together on process

improvement teams in their area of expertise seek to identify root causes and will solve them permanently. Problem solving across the organization promotes the sharing of best practices from within and outside the organization, thereby fostering organizational learning (Gephart & Marsick, 1996).

Involving members of cross-functional teams in the learning process, including those closest to the customer, drives success for the organization (Spanbauer). Bennett and O'Brien state some organizations intentionally place individuals with no knowledge of the problem or process on a team. The individual invariably asks naïve questions, which challenges the thinking of the 'seasoned' team members, thus creating a team learning opportunity.

Creating an environment that fosters team learning is a vital to any learning organization. According to Senge (1990, p. 10)

Effective team learning involves three dimensions: insightful thought related to a complex issue, innovative coordination and the role of team members on other teams. When teams are truly learning, not only are they producing extraordinary results but also the individual members are growing more rapidly than could have occurred otherwise.

Sharing of Knowledge

The sharing of knowledge within an organization is an integral part of a learning organization. Garvin's research indicates that ideas carry maximum impact when they are shared broadly rather than held in a few hands. Systems-level learning occurs when an organization synthesizes ideas and shares their intellectual capital (Gephart & Marsick, 1996).

Learning Organizations in Higher Education

Developing shared knowledge requires the use of variety of mechanisms to spur the learning process (Garvin). These mechanisms need to be created to facilitate the transfer of knowledge between work teams (Goh, 1998). Leaders can provide systems or create structures in the organization which are designed to capture, facilitate, and promote learning thereby ensuring the dissemination and sharing of knowledge and learning (Gephart & Marsick, 1996).

Garvin cites several examples of systems or structures that enhance shared knowledge within the organization. These strategies include a variety of reports, site visits and tours, and personnel rotation programs, education and training programs. Some organizations such as The Container Store, optimize use of their voice mail system to share thoughts, ideas and information (The Container Store, personal communication August 4, 2001). While tours and reports are the most common methods, they are not the most effective. Active learning is much more valuable, and hence “personnel rotation programs are one of the most powerful methods of transferring knowledge” (Garvin, p. 87).

Knowledge management is a relatively new strategy for leveraging the intellectual capital of the learning organization. Progressive academic leaders should consider the emerging role a chief knowledge officer (CKO) within higher education as a model for modern leadership (Stevenson, 2000). In his essay, Stevenson suggests provosts embrace the role of CKO to affect change and balance organizational needs. Stevenson goes on to highlight five strategies for provosts and academic administrators to use to promote the sharing of knowledge:

Balancing knowledge transfer as the core of the undergraduate experience

Not only does Stevenson advocate the sharing of knowledge among employees, but also he suggests faculty should model this behavior in the classroom, with the classroom representing a present-day workplace. Faculty are encouraged “to act as a knowledge facilitator and educational catalyst for providing a curriculum at the undergraduate level that transmits a lucid relationship between explicit and tacit knowledge with emphasis on the competencies in critical thinking, intellectual inquiry, and epistemological capacity-building” (p. 348).

Cultivating knowledge through systemic leadership

Stevenson espouses leadership that views its environment holistically. Leaders analyze demographic, socio-economic, and other regional or international data forcing higher education to get out of its traditional ‘ivory tower’ and view all activities as interrelated and interdependent. The goal is “...to facilitate the exchange of ideas and the harnessing of knowledge between the various sectors of K-12, business, government and commerce...” (p. 348).

Facilitating faculty development through knowledge management

Faculty are true knowledge managers. Administrators must “... provide the resources to academic departments and the necessary support to foster the professional roles of faculty in service, teaching, and research” (p. 349).

Enhancing pedagogy through knowledge management strategic

Stevenson believes it is the role of the administrator “to foster the unique pedagogical and andragogical instructional deliveries of faculty through exploration, infusion and integration of emerging technologies and contemporary knowledge

management techniques” (p. 349).

Fostering the academic culture and creating a learning-centered climate

The teaching-learning process provides a framework conducive to knowledge management. Faculty and students regularly engage in cause-effect analysis. Leadership is responsible “for promoting and advocating a spherical culture that is conducive to the ongoing search and manifestation of truth- however disconcerting...” within the organization (p. 349).

Learning organizations also use technology to advance and promote learning and the sharing of knowledge. Computer systems can be optimized for communication among employees and to ensure access to data pertinent to their jobs (Bennett & O'Brien, 1994). An effective management information systems (MIS) can greatly influence an organization’s capacity to learn. Employees must have ready access to business and strategic information to provide them with data to make sound, timely decisions (Gephart & Marsick). In addition, the organization’s research data should be complete, current and accurate. Access to information promotes employee empowerment while nurturing an environment of trust (Cornesky, et al, 1991).

Culture

An organization’s culture must be intentionally developed and constantly nurtured in order to positively impact the organization (Freiberg & Freiberg, 1996, p. 173).

Culture is defined by Gephart and Marsick as “...the glue that holds and organization together. Its culture encompasses basic often-unexamined assumptions about how things are done, as well as the norms and values that guides employees behavior” (p. 39).

Gephart and Marsick maintain:

Learning Organizations in Higher Education

Employees may come and go, and leadership may change. But an organization's memories preserve behaviors, norms, values and "mental maps" over time. As an organization addresses and solves problems of survival, it builds a culture that becomes a repository for lessons learned (p. 38).

Gephart and Marsick's view of culture aligns and supports Senge's mental model discipline. According to Senge, the most crucial mental models are those shared by key decision makers within the organization. To create a positive 'mental model' within the organization, openness and merit are required. Openness is a requirement in learning organizations. The openness must be demonstrated outwardly and practiced inwardly. Outwardly, openness can foster an environment where employees are encouraged to contribute and discuss challenges within the organization. Inwardly, all individuals must be reflective and ready themselves to be receptive to new ideas. (Senge, p. 184)

Manifestations of a positive organizational culture vary from policies (or lack thereof, to the general feeling or aura of an organization. Bennett and O'Brien (1994) suggest "a learning organization adopts a climate of openness and trust; people are unafraid to share their ideas and speak their minds" (p. 44). The organization attempts to minimize policies and rules which block the flow of information within an organization (Bennett & O'Brien, 1994).

Gephart & Marsick (1996) find that teamwork and openness challenge hierarchical organizational structures, hence many learning organizations tend to be flatter and decentralized. Organizational roles are flexible to allow for agility and responsiveness. Employees are also encouraged to question why things are done and to value 'intellectual curiosity'. A spirit of flexibility and experimentation are promoted,

where people are encouraged to take risks, experiment and create new work processes (Gephart & Marsick, 1996; Goh, 1998).

Systems Thinking

Systems thinking is the cornerstone ‘discipline’ of Senge’s learning organization. A systems approach allows leaders to view the organization holistically and identify root problems. Viewing individual problems discretely, as opposed to taking a systems approach feeds into leadership’s tendencies to look for familiar solutions, which offer temporary benefits or shifts the ‘problem’ to another area of the organization (Senge, 1990). “Problems facing society today are so complex and interrelated that it’s difficult, if not impossible, for one agency or individual to resolve them (Feddersen, 1999, paragraph 5).

At the core of systems thinking exists a shift of mind set in “seeing interrelationships rather than linear cause-effect chains, and seeing process of change rather than snapshots” (Senge, p. 73). Language shapes perceptions, and Western language of sentence structure is linear (Senge). Systems thinking requires a non-linear language or a language of circles. Systems thinking has established its own language of circular feedback loops.

Practicing systems thinking requires an understanding of feedback mechanisms or loops. Feedback loops demonstrate how actions “can reinforce or counteract (balance) each other” (Senge, p. 73). The feedback loops demonstrate the influences of actions and delays upon the process. “Though simply in concept, the feedback loop overturns deeply ingrained ideas—such as causality” (Senge, p. 76).

Organizations are built of multiple feedback loops that are woven to form the

Learning Organizations in Higher Education

fabric of an organization. By focusing on the dynamic complexity, instead of the detailed complexity, people can identify leverage points to propel the organization forward (Senge).

Forces of Change in Higher Education

“Today’s prevailing market forces place intense pressure on community colleges that faculty and administrators in yesterday’s institutions could not have imagined or dealt with” (Alfred & Carter, 2000). Higher education is organized around a matrix of relationships that are political, bureaucratic, collegial and increasingly economic (Stevenson, 2001). Higher education is facing obstacles which were familiar to the automobile industry in the 70’s and 80’s (Jasinski, 1999). “Educational costs continue to escalate, with no demonstrable improvement of results,” (Karathanos, 1999, page 231).

Those challenges include new competition in the form of online course work, demands for quality products, increased accountability, and new marketplace requirements (Jasinski, 1999). Bailey and Bennett went on to identify factors such as static enrollment and poor retention rates as motivators for higher education. Additional challenges facing higher education include reductions in state funding and rising tuition costs for students (Bailey and Bennett, 1994; Lewis & Smith, 1994).

Until recently, most higher educational institutions were able to clearly identify their competitors. The majority of competition occurred within a geographic region. New competitors are entering these regional markets via technology. Distance education is a reality, globalizing the access and demand for education, (Bailey and Bennett; Jasinski, 1999; Karapetrovic, Rajamani, & Willborn, 1999; Alfred & Carter, 2000). Virtual universities such as Capella University or the University of Phoenix are reshaping

the face post-secondary education.

Unlimited public funding is a thing of the past. Policy makers are no longer signing blank checks for higher education (Alfred & Carter). As distance education increases, public officials are beginning to view technology as an answer to fiscal challenges. Technology may be able to provide education for less money than traditional face-to-face instruction costs of building new classrooms (Alfred & Carter).

Institutions must demonstrate increased efficiency and effectiveness to survive (Spanbauer, 1996; Alfred & Carter, 2000). Additional fiscal challenges include salary increases, increased operating expenses, most zero increases in state funding, market shifts and health care increases (Rasch. L., personal communication, March 29, 2001).

Very few higher educational institutions can fully identify their customers. “Even fewer acknowledge that they serve customers” (Lewis & Smith, 1994. p. 91). While students are in a sense customers, they are also the product, and play a key participatory role in the education process (Foucar-Szocki et al., 2001). Educators have a difficult time viewing students as customers (Lewis & Smith). Traditionally, schedules are developed, courses offered and facilities designated to benefit the institution. Students are often a secondary consideration (Lewis & Smith).

According to Karapetrovic, Rajamani, and Willborn (1999) education’s “customers are the industries where graduates are employed, as well as accreditation boards that set the requirements for student knowledge and competence.” According to Spanbauer (1996), “the group pushing the hardest for school reform is the business community. Employers recognize that they need highly qualified workers to do more than ever before.”

Learning Organizations in Higher Education

Spanbauer (1996) divides education's stakeholders into two groups: external (students, employers, parents, taxpayers, community, board members and peer institutions) and internal (other instructors, administrators, service department staff). The University of Alabama has identified additional customers which include local businesses that serve the campus, high schools, elected officials and alumni (Dew, 2000).

In the last decade, external stakeholders such as students, taxpayers, parents, legislators and employers began to demand increased accountability for their dollars spent on higher education (Lewis & Smith; Spanbauer, 1996). Higher education must strive to make improvements in order to meet the ever-changing needs of its stakeholders (Spanbauer, 1996). "Corporations have understood for a long time that if they're to remain competitive in the marketplace, they need to have suppliers that can meet their requirements for critical resources" (Sumberg, 2000, paragraph 1). Employers view higher education as its key supplier of a critical resource, 'human capital' which is integrally tied to business' overall success (Sumberg, 2000)

In response, colleges are responding by deliberately involving their stakeholders in decisions related to resources (Alfred & Carter, 2000). Community colleges are looking inwardly to develop flexibility and responsiveness to critical stakeholder needs (Rasch, 1997). Partnerships are being forged which rely on service, innovation and flexibility. Successful organizations will embrace change and merge tradition and change to create value for their customers (Alfred & Carter, 2000).

Continuous Quality Improvement in Higher Education

The application of continuous quality improvement in education is less than a decade old (Jasinsky, 1999). Most American businesses agree that the successful

implementation of a continuous quality improvement initiative such as total quality management, which focuses on the customer and customer satisfaction, develops when a crisis is present. For education, that crisis or stimulus could be decreasing enrollments, followed by budget cuts and staff reductions (Wallace, 1999).

Implementing systematic quality improvement practices in education is totally voluntary and educational institutions have been slow to adopt a continuous improvement philosophy, (Jasinsky, 1999). Jasinsky suggests possible reasons for resistance as a lack of impetus to change, lack of awareness of external change which will impact higher education and their overall resistance to ideas not rooted or invented within their organization.

Change evolves slowly in colleges and universities. Higher education is prone to debate and discussion. Faculty and staff expect their voices to be heard. Decisions are usually not made by majority, but rather by consensus. The consensus process is valued and esteemed, and is an important part of the unique culture of higher education (Dew, 2000).

Welch (2001) commented, “one of the biggest barriers to introducing Total Quality concepts in the education system is the fact that the current system is monopolistic with no incentive to improve because of lack of competition. What the education systems need is a Quality epiphany.”

In their book, Implementing Total Quality Management in Higher Education, Cornesky, McCool, Byrnes, and Weber (1991) stated “it is difficult for a system threatened on all sides and forced to adopt a defensive mode to improve quality.” Cornesky et al (1991) identified five conditions for total quality management of total

quality improvement change. The authors cited the importance of implementing the strategies in a sequential order, as opposed to random implementation. The necessary conditions are: (1) administrative commitment and education, (2) faculty and staff commitment and education, (3) establish trust, (4) establish pride in workmanship, and (5) change the institutional culture (p. 95).

In the October 1992 issue of Quality Progress (as cited in Lewis and Smith, 1994) 220 colleges and universities reported to be involved in total quality. By 1996, according to Spanbauer, “many progressive education leaders are responding to the call for action. They have begun to apply some of the business prescriptions detailed in the quality movement and they have had success.”

Spanbauer described the key concepts of quality in education. The quality concepts include: (1) customer focus, the first priority; (2) leadership, the ultimate commitment; (3) team problem solving, the cornerstone of total quality improvement; (4) process management, methods and tools; (5) meaningful data, no more management by genius; (6) organizational climate, a cultural transformation; (7) education and training, the learning organization. Spanbauer’s concepts, along with those identified by Cornesky, et al have been embraced by some institutions of higher education.

Wallace (1999) shared the success of Southern Polytechnic State University in Marietta, GA. The university participated in a 5-year grant, funded by IBM, focusing on Total Quality Management. Part of the purpose of the grant was to encourage the participants to change their operations, based on research related to the topic of quality. A portion of the grant supported the creation of a quality training program for the university’s employees. A 45-hour course called the “Principles of Continual

Improvement” was developed, and by 1997, 80 percent of the employees had taken completed the course.

As a result of the grant opportunity, the university learned a number of things which changed the way they do business. Southern Polytechnic State University learned the importance of creating a shared vision and mission, teamwork, effective communication, process focus in the light of continuous improvement, and the primary role of the customer (Wallace, 1999).

The University of Alabama chose to use the Malcolm Baldrige National Quality Award criteria as a measure of continuous improvement for their organization. The university’s leadership recognized that the quality issue in higher education is about building a management system which drives CQI of all processes, based on stakeholder data (Dew, 2000).

According to Dew (2000), each academic or administrative unit aligns itself with the mission of the university. This alignment has fostered innovative research which directly impacts the university’s stakeholders. As a result, new research initiatives are impacting the regional community and stakeholders, hence increasing stakeholder satisfaction.

The University of Alabama has clearly identified fifteen distinct stakeholder groups whose requirements must be addressed as part of the strategic quality planning process. The stakeholder groups are (Dew, 2000, paragraph 16): (1) students, ages 18-22; (2) adult students, greater than age 22; (3) parents of the 18-22 year-old students; (4) faculty; (5) staff; (6) employers of graduates; (7) local businesses serving the campus community; (8) high schools and community colleges; (9) public officials; (10) agencies

and foundations providing funding; (11) alumni; (12) taxpayers of Alabama; (13) university retirees; (14) university friends who support projects; and (15) international communities utilizing the language schools. The university has initiated the collection of data from stakeholders, which will be incorporated into future strategic quality planning processes. Finally, the university is developing a balanced scorecard to provide feedback for the planning process. The scorecard will provide a structured framework for evaluating organizational performance (Dew, 2000).

Dew (2000) summarized the path quality must take travel in higher education to be successful:

Quality cannot be inspected into education through more testing, just as it cannot be inspected into a product in a manufacturing setting. Quality must be built into the process by listening to the stakeholders, collecting data and involving the stakeholders in the improvement of processes... (paragraph 43).

Accreditation in Higher Education

According to the Council for Higher Education Accreditation (2001), “accreditation arose in the years before World War II because colleges and universities recognized the need to establish standards for admission and transferability of credit”. Over the years, the accreditation process continued to expand and evolve (CHEA, 2001).

While individual states may exercise varying degrees of control, in general, institutions of higher learning are allowed to operate with considerable independence and autonomy, (Department of Education, 2001).

“Accreditation is this country’s primary form of higher education quality review (Eaton, 2001, p.38). The United States has no single authority controlling post-secondary

education. To ensure some level of quality, yet maintain the autonomy of higher education institutions, the U.S. Department of Education has recognized six regional accrediting bodies to conduct the accreditation process (Department of Education, 2001).

These private regional accrediting bodies have created criteria that reflect a sound, quality academic environment. They have the ability to evaluate and assess the institutions level of effectiveness in maintaining these standards, and if acceptable will grant accreditation for three to ten years (Department of Education, 2001).

Traditional Accreditation

According to the Department of Education (2001) the functions of traditional accreditation are to:

1. Verify an institution or program meets established standards
2. Assist prospective student in identifying acceptable institutions
3. Assist in determining the acceptability of transfer credits
4. Help to identify institutions and programs for public and private investment
5. Protect and institution from harmful internal and external pressure
6. Create goals for self-improvement of weaker programs and stimulate the raising of standards among educational institutions
7. Involve faculty and staff in the organization's planing and evaluation process
8. Establish criteria for professional certification and licensure and to upgrade those preparatory courses
9. Act as one of several considerations used as a basis for determining eligibility for federal assistance.

The traditional accreditation process requires (1) an institution to complete a

detailed written self-study based on a prescribed set of criteria established by the regional accrediting agency; (2) an on-site evaluation team of peers is selected by regional accrediting agency to visit the college or university to clarify and/or verify the information included in the self-study; (3) upon satisfaction of the accreditation standards, the regional accrediting agency grants accreditation and makes public the institution achievement of accreditation; (4) the accrediting agency continues to monitor the institution during the period of granted accreditation to ensure the institution continues to meet the established accreditation criteria.

Colleges and universities seek accreditation for a number of reasons.

Accreditation demonstrates acceptable quality by meeting minimum standards (Department of Education, 2001). Although accreditation is voluntary, realistically institutions must be accredited. Recognition as an accredited institution has benefits. First, students wishing to be eligible for federal financial aid assistance, must attend an institution accredited by an agency recognized by the Department of Education (McMurtrie, 1999). Secondly, accreditation may assist students in choosing acceptable institutions (Department of Education, 2001). Thirdly, accreditation assists in the transfer of credits from one institution to another for students. Finally, if institutions wish to qualify for private or federal grant dollars, status as an accredited institution is often required to demonstrate worthiness (Lenn, 1990). In general, failure to obtain accreditation limits and institution's funding opportunities negatively impacts student enrollment and diminishes support of external stakeholders.

Accreditation also affords the institution an opportunity for self-improvement, by undergoing the scrutiny of external peer consultant evaluators (Department of Education,

2001). According to McMurtrie (2000), “ask college officials about their last visit from a regional accreditor, and they gripe. It’s tedious. It doesn’t tell them anything they don’t already know. It focuses on meeting the most basic standards of quality.” Although the traditional accreditation process has been a mechanism for assuring adherence to minimum quality standards, there has been criticism about the long-term value of traditional accreditation models, especially how they relate to actual organizational improvement.

Calls for Change Accreditation

The traditional accreditation process, requiring institutions to meet minimum standards was being challenged. Stakeholders wanted education to demonstrate accountability and suggested linking funding to the measurement of student learning (McMurtrie, 2000). Mature higher educational institutions, who must repeatedly reaffirm accreditation based on basic standards of operations, find the process less useful in assisting them achieve strategic goals (Eaton, 2001). “Reformers are saying that incremental improvements and minor changes are not enough” (Spanbauer (1996, p. 3).

The fundamental premise of accreditation reform (for institutions which have been accredited for decades) should enhance institutional effectiveness (Eaton, 2001). How would higher education satisfy the Department of Education and external stakeholders who rely on the traditional accreditation, and yet satisfy higher education’s need to create process which is beneficial and valued for the college or university (Jasinski, 1999)?

These issues have forced higher education to look outside academe, to business and industry for a model to effectively overcome the obstacles and meet the demands of

their stakeholders (Walsh, 2000). As value of the reaccreditation process was being challenged, the Malcolm Baldrige National Quality Award criteria were being recognized as a strategy for systematic continuous quality improvement (Jasinski, 1999). Business and industry had used the model since the late 1980's (National Institute for Standards and Technology – [NIST], 2001). The Malcolm Baldrige National Quality Award was created to renew the emphasis of quality within American business. Quality was no longer optional, but rather a necessity for conducting business in a more demanding, competitive world market (NIST, 2001).

In 1995, the Baldrige criteria were piloted in education. The pilot was created in response to “strong interest by the education community” (Karathanos & Karathanos, 1996, paragraph 1). The criteria paralleled the criteria for business (Karathanos & Karathanos, 1996) and offered a comprehensive focus by structuring the steps for achieving results (Walsh, 2000).

By 2000, all six regional accrediting agencies had revised or had plans to change and/or modify their present accreditation process. Changes for each of the processes follow (McMurtrie, 2000, paragraph 57).

1. Middle States Association of Colleges and Schools is in the process of revising standards to focus on student learning and other measures.
2. New England Association of Schools and Colleges is developing better ways for colleges to measure student learning, with a complete review of accreditation standards in two to three years.
3. North Central Association of Colleges and Schools began alternative accreditation process in spring 2000 (in addition to traditional accreditation

process).

4. Northwest Association of Colleges and Schools – drafted revisions of eligibility requirements to include evidence of student achievement and institutional effectiveness.
5. Southern Association of Schools and Colleges is modifying standards to make them less prescriptive with increased focus on measuring results.
6. Western Association of Schools and Colleges, Commission for Community and Junior Colleges plans to revise standards in 2001, and is considering an alternative process similar to North Central's.

Academic Quality Improvement Project Principles and Criteria

One of the first regional accrediting agencies to formally respond to the change was the North Central Association of College and Schools, now the North Central Association Commission on Higher Learning (McMurtrie, 2000).

In July 1999, the North Central Association Commission on Higher Learning, in cooperation with the Pew Charitable Trusts of Philadelphia began developing an alternative re-accreditation process. The new re-accreditation process was called Academic Quality Improvement Project or AQIP. AQIP's goal was to design an innovative, more challenging alternative to the current traditional re-accreditation process. The new process would engage institutions by increasing the benefits realized via participation in the process (Spanghel, 2000).

The alternative accreditation process was unveiled at North Central Association's annual meeting in April 2000 (North Central Association Commission on Institutions of Higher Education [NCA], 2000). The alternative

process is founded on a philosophy of continuous improvement based on the individual college's progression toward goal achievement, as opposed to traditional standards and prescriptives (Biemiller, 2000). The process focuses greater attention to the institution's mission as the basis for determining effectiveness (Eaton, 2001). The new model replaces the once-a-decade self-study, accompanied by a accreditation team site visit, followed by recommendations and analysis (McMurtrie, 2000).

Basing an accreditation model on business and industry standards has not been without obstacles. The organizational structure of an higher learning institution is often times based on hierarchy. Decisions are often made based on collegial and philosophical discussion and then implemented slowly and cautiously. The structure and processes within higher education are remarkably different from most of business and industry (Dew, 2000).

The new accreditation process is characterized as “nudge, not judge” (Biemiller, 2000, paragraph 6). Stephen D. Spangehl, AQIP director believes the process will be one characterized by increased collaboration between the institution, the accrediting agency and other AQIP institutions. Spangehl sees AQIP taking on a ‘coaching’ role to assist an institution in meeting goals which are intrinsically important to the institution, and by requiring the institution to set hard targets associated with the goals, in which both the organization and AQIP can measure progress toward achievement of those goals (S. Spangehl, personnel communication, November 8, 2000). The alternative process will assure quality by verifying that an institution is striving, continually and consciously, to improve its systems and processes used to provide education to students (NCA, 2000).

Learning Organizations in Higher Education

AQIP expects the alternative process to assist institutions in achieving their own goals and purposes more effectively, quickly and efficiently, while still maintaining its autonomy and uniqueness in a highly competitive and rapidly changing higher educational environment (NCA, 2000).

According to North Central Association Commission on Institutions of Higher Education (2000) participating AQIP institutions can expect to: (1) learn a new way to assess itself; (2) identify strengths and be able to position itself in the academic marketplace; (3) identify opportunities for improvement and areas for growth or refinement; (4) receive objective feedback and (5) become part of a growing cadre of educational institutions that continually seek to improve their performance to better serve their stakeholders and earn their praise.

The AQIP process requires institutions to operate more like business by taking a systems approach to problem solving and encouraging a databased decision-making process. Because of this philosophy, AQIP institutions may have adopted or created organizational structures, affiliations or practices that more readily support their transition into the alternative accreditation process. Of the 41 institutions participating in the AQIP process as of August 27, 2001 (Academic Quality Improvement Project, 2001), 12 of them are also members of the Continuous Quality Improvement Network also known as CQIN (Continuous Quality Improvement Network, 2001).

The Continuous Quality Improvement Network's purpose is to assist members with active organizational transformation using out-of-box learning while sharing best practices. The organization also develops strategies to enhance active institutional learning for faculty, staff and trustees. Examples include: sharing innovative ideas and

initiatives via a featured practices web site; conducting workshops and seminars on topics related to purposes; linking with groups outside education for mutual exchange of ideas and practices (Continuous Quality Improvement Network, 2001). The organization's goals support many of the same goals of the Academic Quality Improvement Project and of a learning organization.

Values

The nine AQIP values also support and align with the six common themes of learning organizations identified in the review of literature. Table 3 shows a relational matrix between the AQIP values and learning organizational themes created by the researcher.

Table 3.

Academic Quality Improvement Project Value Alignment with Learning Organization

Themes

	<u>AQIP Values</u>			<u>Learning Organization Themes</u>							
	Leadership	Shared	Vision	Team	Learning	Sharing of	Knowledge	Systems	Thinking	Organizational	Culture
Focus	X	X	X								
Involvement	X	X	X	X	X	X	X	X	X	X	X
Leadership	X	X	X	X	X	X	X	X	X	X	X
Learning				X	X	X	X	X	X	X	X
People				X	X	X	X	X	X	X	X
Collaboration	X	X	X	X	X	X	X	X	X	X	X
Agility	X	X	X	X	X	X	X	X	X	X	X
Foresight	X	X	X	X	X	X	X	X	X	X	X
Information		X	X	X	X	X	X	X	X	X	X
Integrity	X	X	X	X	X	X	X	X	X	X	X

Criteria

The Academic Quality Improvement Project has created nine criteria, which allow “colleges and universities to look at themselves as interrelated processes bound together by a common mission” (NCA, 2000, p. 6). The criteria assist colleges and universities by creating an environment which fosters self-examination, encourages the sharing of successful practices among all institutions of higher learning, and improves the overall effectiveness of institution in reaching it’s goals. North Central Association (2000), lists and describes the following nine quality criteria:

- (1) Understanding Students’ and Other Stakeholders’ Needs – takes into account all the external and internal individuals or groups have a major stake in the institutions success.
- (2) Valuing People – allows the institution to demonstrate its commitment to developing its human resource potential across the organization.
- (3) Leading and Communicating – examines the leadership system and processes for communicating information throughout the organization
- (4) Helping Students Learn – identifies the degree of student learning occurring in the college or university
- (5) Accomplishing Other Distinct Objectives – explores the processes contributing the achievement of the organization’s key objectives or mission.
- (6) Supporting Institutional Operations – addresses the processes which indirectly impact student learning
- (7) Measuring Effectiveness – under rides all criteria and is supported by the organization’s performance indicator system.

- (8) Planning and Continuous Improvement – examines institutional alignment and deployment of action plans that support the mission.
- (9) Building Collaborative Relationships – encourages the institution to analyze how partnerships enhance and support the organization’s key objectives and mission.

AQIP and Baldrige

AQIP relies in part on the fundamental principles of the Malcolm Baldrige National Quality Award (NCA, 2000; Biemiller, 2000; Jasinsky, 1999; Eaton, 2001). “AQIP takes its cues – which focus on “rewarding positive behavior, as rather than punishing inadequacies – from the U.S. Commerce Department’s Malcolm Baldrige National Quality Award Program, as well as from recent organization-management trends” (Biemiller, 2000, paragraph 10).

The Malcolm Baldrige National Quality Award criteria are designed to help organizations enhance their competitiveness by focusing on organizational delivery of ever-improving value to customers and the improvement of overall organizational performance. The Baldrige criteria are designed to enhance organizational competitiveness in two ways. First, by delivering improved value to customers and secondly, by improving overall organizational performance (NIST, 2001).

Baldrige category criteria include the areas of: Leadership; Strategic Planning; Student, Stakeholder and Market Focus; Information and Analysis; Faculty and Staff; Work Processes; Performance Results. The criteria are briefly described (NIST, 2000).

- (1) Leadership – examines how senior leadership guides the organization and addresses its responsibilities to the public along with citizenship.

(2) Strategic Planning – examines how the organization sets strategic direction and identifies key action plans.

(3) Customer and Market Focus – examines how the organization determines stakeholder requirements and expectations.

(4) Information and Analysis – examines the management, use and analysis of information within the organization.

(5) Human Resource Focus – examines the key human resource practices which create and maintain a high-performance workplace.

(6) Process Management – examines the central requirements for efficient and effective process design, implementation and monitoring.

(7) Results – examines performance and improvement in areas such as: customer satisfaction, financial and marketplace performance, human resources, supplier and partner performance, and operational performance.

Originally, the Baldrige criteria were only applied to business, with the first award given in 1988. Gradually healthcare and education became more interested in the process and wanted to apply business' learnings to their respective operations. Following an education pilot in 1995, the Malcolm Baldrige National Quality Award established specific criteria for each healthcare and education in 1999 (Diamondstone, 2000).

In addition incorporating the seven Baldrige criteria, AQIP focuses on assessment and student learning, both key drivers in the higher education community (Jasinsky, 1999).

While the alternative pathway may not serve everyone, NCA hopes at least a third of its accredited institutions will choose to participate in AQIP by 2003

(Biemiller, 2000). It will provide an excellent framework to measure and improve overall institutional achievement and effectiveness.

Table 4, the AQIP-Baldrige Crosswalk Matrix, demonstrates the alignment of the nine AQIP criteria with the seven Malcolm Baldrige categories.

Table 4.

AQIP-Baldrige Crosswalk Matrix.

Note: from “AQIP mapped to Baldrige Criteria” from the Academic Quality

Improvement Project, 2001. Retrieved September 11, 2001 from the World Wide Web:

<http://www.aqip.org/atob.html>

<u>AQIP Criteria</u>	<u>Baldrige Criteria</u>							
	Leadership	Strategic Planning	Student, Stakeholder & Market Focus	Information & Analysis	Faculty & Staff	Work Processes	Results	
Helping Students Learn						X	X	
Accomplishing Other Distinct Objectives						X	X	
Understanding Students’ & Other Stakeholders’ Needs			X					X
Valuing People					X			X
Leading and Communicating	X							X
Supporting Institutional Operations						X	X	
Measuring Effectiveness				X				X
Planning Continuous Improvement		X						X
Building Collaborative Relationships						X	X	

Learning Organizations in Higher Education

Summary

In private industry and business, organizations do not improve without first learning something new. Without active learning, organizations and individuals continue to ‘conduct business as usual’. Successful businesses have recognized the link between learning and continuous improvement. As a result, they have refocused their companies around it (Garvin, 1993).

It is in this spirit of organizational learning, that the North Central Association has created the AQIP process. The processes and expectations NCA is projecting for partnering institutions will support and align with many of the characteristics of learning organizations. The alternative AQIP re-accreditation process takes an ongoing and learning approach to institutional effectiveness.

“A learning organizational model and associated disciplines hold great promise for helping to reconceptualize and reinvigorate collegial practices characteristic of higher education. Building on a foundation that prizes the mastery of self-directed professional and honors the practice of participative decision-making, colleges and universities are well situated to use mental modeling and systems thinking to critique their own organizational structures and processes” (Dever).

This parallels Goh’s (1998, paragraph 3) statement, “organizational learning is a long-term activity that will build competitive advantage over time and requires sustained management attention, commitment, and effort.” To quote Gephart & Marsick (1996, p. 45) “An organization’s quest to become a learning organization is a journey, not a destination”.

This review of literature has identified previously published information

Learning Organizations in Higher Education

that has defined a learning organization, and developed the characteristics and common themes of learning organization. In addition, the review has identified forces of change, continuous improvement, and accreditation in higher education, while describing the AQIP principles and criteria. It was apparent from the review of literature that additional research was needed to investigate the presence of learning organizations in higher education, and what if any link exists between learning organizations in higher education and North Central's alternative accreditation pathway, AQIP.

Learning Organizations in Higher Education

CHAPTER III

Methodology

Previously, Chapter One has stated the purpose of this study is to quantify, measure and compare organizational learning scores between six traditionally accredited colleges and universities and six non-traditionally accredited, Academic Quality Improvement Project, colleges and universities.

Chapter Two was a literature review focused on the following topics: the definition of a learning organization, characteristics of learning organizations; forces of change in higher education, continuous quality improvement in higher education; traditional accreditation process; and Academic Quality Improvement Project principles and criteria.

Chapter Three will provide a detailed explanation of the research methodology, research design, population selection, instrumentation, validation procedure, instrumentation modification, instrument distribution, data collection goals, and limitations of the survey.

Description of Research Methodology

The impetus of this study came as a question on the part of the researcher as to why some colleges and universities readily embrace the Academic Quality Improvement Project accreditation pathway, while others are hesitant. Observation and interaction at conferences and seminars with higher education faculty and staff fostered additional insights, pointing to common concepts of systems thinking, shared vision and team learning among those colleges and universities participating in the Academic Quality Improvement Project. Since these components overlap with those of a learning

organization, the researcher questioned whether these non-traditionally accredited institutions might not also be 'learning organizations'.

The study has been developed to include a cross-sectional study of colleges and institutions accredited by North Central Association's Higher Learning Commission. The goal is to determine if colleges and universities utilizing the alternative accreditation process (AQIP) possess a higher level of maturity as learning organizations when compared to traditionally accredited institutions. The study will quantitatively measure the organizational learning climate among the twelve institutions of higher education.

Research Design

The research design intends to identify organizational learning strategies presently deployed in higher education. The survey will specifically examine seven areas: Shared mission/vision, Experimentation, Teamwork and Team Learning, Transfer of Knowledge, Systems Thinking, Leadership, and Employee Skills and Competencies.

The survey is designed to quantify each respondent's perception related to his or her institution's maturity as a learning organization. The survey was created after completing the review of literature, reviewing other surveys designed to quantify organizational learning, and identifying common organizational drivers in learning organizations. The research design is briefly outlined in Table 5.

Table 5.

Summary of Research Design and Methodology

<u>Action</u>	<u>Method</u>
1. Research Design	<ul style="list-style-type: none"> • Identify twelve institutions accredited by North Central Association’s Higher Learning Commission • Select six traditionally accredited (non-CQIN members) • Select six non-traditionally (AQIP) accredited
2. Select participating Colleges/Universities	<ul style="list-style-type: none"> • Non-probability • Convenience sampling
3. Gather general organizational information on each college or university	<ul style="list-style-type: none"> • Qualitative literature review of AQIP profile • CQIN web site www.cqin.org • E-mail questionnaire to with contact person
4. Identify internal contact within institution	<ul style="list-style-type: none"> • Professional contacts • Referral by professional colleague
5. Create survey	<ul style="list-style-type: none"> • Review of literature • Existing learning organization surveys
6. Survey validation	Validated by: <ul style="list-style-type: none"> • Two Organizational Development colleagues • One trainer with expertise in subject matter
7. Survey modification	<ul style="list-style-type: none"> • Additional questions added for the systems thinking category • Questions deleted from Personal mastery category
8. Survey distribution to contacts	<ul style="list-style-type: none"> • Surveys color-coded by institution • Surveys mailed to contacts over a one week span

<u>Action</u>	<u>Method</u>
9. Survey distribution to participants	<ul style="list-style-type: none"> • Participants selected by contacts • Stratified distribution to equally represent institutions instructional/divisional areas • Distribution to participants via college mail delivery service • Contacts follow-up with participants three days prior to due date • All institutional survey's mailed as a group to researcher

Population Selection

The method for choosing the participating colleges or universities was by a non-probability sampling. The researcher set the following criteria for survey distribution. (1) Institutions surveyed hold accreditation from North Central Association's Higher Learning Commission. (2) An equal number of traditionally accredited and non-traditionally accredited [Academic Quality Improvement Project] institutions would be surveyed. Because the researcher had professional acquaintances at six colleges and universities engaged in the Academic Quality Improvement Project (AQIP) accreditation process, it was decided to limit the total number of institutions surveyed to twelve; six traditionally accredited and six non-traditionally accredited. (3) An equal number of faculty would be surveyed at each institution. (4) All faculty surveyed must teaching full-time.

A profile of each participating college or university was created for comparative purposes. The profile included the following general institutional characteristics:

- Accreditation process
- Faculty Union (Yes or No)

Learning Organizations in Higher Education

- Institution category (technical college, community college, 4-year college or university)
- Major funding source (public or private)

The general institutional characteristics of each institution were gathered in one of two ways. (1) Information was gathered from the organizational profiles created for the Strategy Forum for those institutions participating in the Academic Quality Improvement Project accreditation process. (2) Contacts at traditionally accredited institutions were telephoned or emailed and asked to respond to the following general institutional criteria. Table 6 demonstrates the balanced research design with respect to general organizational characteristics, while Table 7 outlines the individual organizational profiles of the participating colleges and universities.

Table 6.

General Organizational Characteristics of Institutions by Accreditation Variable

Note: *Non-traditionally accredited = AQIP institutions

		<u>Accreditation Pathway</u>	
		<u>Traditional</u>	<u>Non-Traditional*</u>
<u>Institution Type</u>	University	1	1
	Community College	3	3
	Technical College	2	2
<u>Funding</u>	Public	5	5
	Private	1	1
<u>Faculty Working Environment</u>	Union	5	4
	Non-union	1	2

Table 7.

Organizational Profiles of Participating Institution by Accreditation Variable

Note: Institutions are represented by the letters A-L to protect anonymity; *Non-traditionally accredited = AQIP institutions

	<u>Accreditation Pathway</u>											
	<u>Traditional</u>						<u>Non-Traditional *</u>					
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>	<u>L</u>
<u>Type</u>												
University			X				X					
Community College	X				X	X			X		X	X
Technical College		X		X				X		X		
<u>Faculty Union</u>												
Yes	X	X		X	X	X		X		X	X	X
No			X				X		X			
<u>Funding</u>												
Public	X	X		X	X	X		X	X	X	X	X
Private			X				X					

Instrumentation

The instrument’s design is intended to be user friendly and practical from the respondent’s perspective, while ensuring a high level of response for the sampling results. The survey used was modeled after “The Learning Organization Survey” created by Goh and Richards (1997). The researcher contacted Dr. Swee Goh via email and received permission to utilize their survey as a tool for research purposes in determining the organizational maturity for this research project (see Letter of Permission -Appendix A).

The survey uses a Likert interval scale as the method of data collection. A seven-

point Likert scale was used with one being the lowest score, 'strongly disagree' and seven being the highest score, 'strongly agree'. The design consists of 31 questions to solicit opinions on subject components. Additionally, five questions (32-36) identifying personal demographic information were included.

Goh and Richards "The Learning Organization Survey" questions presented in a journal article (1997, p. 582-583) consisted of 21 questions. When the researcher received permission to use the survey, Goh attached an electronic copy of the 2001 copyrighted survey. The survey had been revised and now included 47 questions (see Appendix B – The Learning Organization Survey). The researcher believed the 47-question survey would be too lengthy for purposes of this research, and may decrease survey return rate.

The researcher chose to eliminate 20 questions. The questions eliminated from Goh & Richards "The Learning Organization Survey" were questions: 8, 14, 18, 23-32, 36-39, 42, and 44. Of the remaining 28 questions, three were modified. Question number 4 stated, "Failures are seldom constructively discussed in our organization. The question was modified to state, "Failures are constructively discussed in our organization." Question number 7 stated, "Senior managers in this organization resist change and are afraid of new ideas." The question was modified to state, "Leaders in this organization are open to change and new ideas." Question number 22 stated, "There is little overlap in work between different units in the organization." The question was modified to state, "There is much overlap in work between units in the organization". Modifications were made to questions so that all statements in the survey would be consistent and "positive" characteristics of learning organizations. These modifications

simplified calculations.

In addition, the original survey frequently utilized the term ‘manager’. Since the survey was designed to survey full-time faculty members, the researcher chose to substitute the term ‘leader’, to more accurately reflect higher education. After editing the survey, the researcher chose to add four additional questions related to systems thinking. These four questions were drafted based upon common themes in the review of literature related to systems-thinking. Questions 32-36 collected five pieces of personal demographic information including the respondent’s length of service with the organization, length of time in present position, age, gender and supervisory status.

The surveys were color-coded so the researcher could accurately identify which institution the completed surveys originated from. The color-coding facilitated the entering of data related to each institution’s profile of general organizational characteristics, and facilitated the consistent and accurate data entry for each survey.

Instrument Validation

The researcher relied on professional colleagues to review the instrument. Two were employed in the organizational development field, while the third was a veteran trainer from business with expertise in team building and organizational communication.

Two of the subject matter experts, questioned the wording in Question 4, “Failures are constructively discussed in our organization.” One was uncomfortable with the question, while the second made a recommendation to substitute the word ‘mistake’ for ‘failure.’ After reviewing the recommendations, and to minimize confusion related to the question, the researcher decided to eliminate the question since there were already four questions related to the ‘Sharing of Knowledge’ component in the survey.

Distribution of Instrument

The researcher established a contact person at each of the twelve colleges or universities surveyed. Contacts were established based on professional acquaintances of the researcher and personal referrals by a professional colleague. Contacts were initiated using a variety of methods.

The six colleges and universities comprising the non-traditionally accredited institutions were cohort members of a 3-day Academic Quality Improvement Project Strategy Forum and had collaborated on mutually beneficial projects thus far. These six professional acquaintances were contacted by telephone, email or face-to-face. All agreed to participate.

Contacts at the six traditionally accredited colleges and universities were established using one of two strategies. (1) The researcher already had professional acquaintances at three of the institutions. When contacted by telephone or email and all agreed to participate. (2) The remaining contacts were identified by the researcher's colleague, who had many established contacts at a variety of institutions of higher education. The researcher reviewed the list of potential contacts and selected institutions, which fit the established criteria, while creating a balance among the institutions related to general organizational characteristics. The researcher utilized the professional colleague's name when telephoning contacts at these colleges and universities. All contacts agreed to participate. One contact asked the researcher to telephone back in a couple days because he wanted to contact the college president and receive permission prior to agreeing to facilitate process at their institution.

Each contact was mailed a packet that contained:

Learning Organizations in Higher Education

- A cover letter to explaining and outlining the process (see Appendix C)
- 30 numbered surveys, each with a cover letter attached (see Appendix D)
- A survey distribution list (see Appendix E)
- A postage paid return mailer

The contacts were instructed to distribute the survey to 25 full-time faculty members at their respective college or university. Contacts were instructed to evenly distribute surveys throughout their organizations, to ensure a stratified representation of college or instructional/divisional areas.

The numbered survey distribution list was created to simplify the tracking process for each contact. Contacts were asked to record the name of each faculty member on the distribution list and send the appropriately numbered survey to each participant. As surveys were returned, the contact could record the return of each individually numbered survey. Contacts were asked to follow up with non-responders 3-4 days prior to the survey return date. Additional surveys were provided in case of misplaced or lost surveys. If at this point in time the contact anticipated a high rate of non-responders, the contact was instructed to send out the additional five surveys as replacements for the non-responders.

Once all surveys were returned to the contacts at each institution, they were mailed as a group back to the researcher for tabulation. The research design dictated 25 full-time faculty members at twelve institutions be surveyed, for a total of 300 distributed surveys. Packets of completed surveys began to arrive via mail on November 2. The final packet of completed surveys arrived on November 23. On November 28, two

Learning Organizations in Higher Education

additional completed surveys were received from one of the institutional contacts. These surveys were included in the project, since statistical manipulation had not yet occurred. Surveys received after November 20 were not included in the project.

Table 8 shows the survey return rate broken out by accreditation process variable, along with the overall return rate for the research project.

Table 8.

Survey Return Rate by Accreditation Variable

Note: *Non-traditionally accredited = AQIP institutions

	<u>Accreditation Pathway</u>	
	<u>Traditional</u>	<u>Non-Traditional*</u>
Surveys mailed	150	150
Surveys Completed	111	96
Usable Surveys	108	90
Return Rate	72%	60%
Overall combined return rate		66%

Table 9 demonstrates the return rate for each participating institution. Ten of the twelve participating institutions had a return rate of greater than 50 percent. Two of the twelve institutions had a return rate of less than 50 percent. Contacts at those two institutions were disappointed and surprised by the low return rate. Each contact indicated the organizational climate with their institution was challenging at the moment. One institution was in the midst of transitional leadership, while the other institution was

copied with budget cuts and workforce reductions. Both contacts were extremely cooperative with the researcher, and the researcher believes the low response rate was in no part related to lack of persistence on their part.

Table 9.

Institutional Survey Return Rate by Accreditation Variable

Note: ^a 25 surveys sent to each institution

Note: Institutions are represented by the letters A-L to protect anonymity; *Non-traditionally accredited (AQIP) institutions

<u>Institution</u>	<u>Traditional</u>							<u>Non-Traditional*</u>				
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>	<u>L</u>
# Returned ^a	23	17	20	21	2	14	25	17	17	25	21	5
Usable Surveys	22	13	20	20	2	13	25	17	17	24	21	4
% Usable Return	88	52	80	80	8	52	100	68	68	96	84	16
% Return rate for study	11.1	6.6	10.1	10.1	1.0	6.6	12.8	8.6	8.6	12.1	10.6	2.0

Data Collection Goals

The primary goals of the data collection process within this study were as follows:

1. Correlate results in relation to the accreditation processes.
2. Create a baseline organizational learning index for institutions pursuing the alternative Academic Quality Improvement Project accreditation process
3. Establish a learning index for participating institutions
4. Share institution specific survey results with contacts at participating

institutions for purposes of organizational growth and enhancement.

5. Provide comparative data for participating institutions, while ensuring institutional anonymity

Data Processing and Analysis

Responses to each question on the survey were recorded in the statistical software program MiniTab. A quantitative perspective was taken for the responses to questions 1-31. The questions were then grouped by theme according to the six elements of a learning organization: shared mission and vision, organizational culture, teamwork and team learning, sharing of knowledge, systems thinking, and leadership, along with the foundational concept of employee skills and competencies. Data were assembled and recorded into the survey matrix (see Table 12). These seven categories provide the framework for analysis and interpretation in Chapter Four.

Learning Organizations in Higher Education

CHAPTER IV

Analysis of Results

Having extracted the data from the survey responses, run the statistical analysis, and separated and categorized the responses, the results will now be presented in three sections. Section One will be a brief overview of the demographics of the survey participant group. Section Two will include the descriptive statistical analysis of survey Questions 1 to 31 related to the accreditation variable, examination of category scores and organizational learning indexes of the twelve participating institutions, and analysis of organizational learning indexes related to organizational profile characteristics.

Survey Participant Demographics

This portion of the chapter will briefly summarize the demographic information of survey respondents related to years of service with the organization, years of experience in present position, age, supervisory duties, and gender. Survey respondents' demographic data are presented in relation to their institutions' accreditation process.

Years of Service with the Organization

Respondents' years of employment at the organization are shown in Figure 1. New employees with 0 to 5 years of organizational employment comprised the largest segment of respondents for both traditionally and non-traditionally accredited institutions. The next largest segment of respondents was 11 to 15 years of experience for the traditional organizations and 16 to 20 years for the non-traditional organizations. Figure 1.

Survey Respondents' Years of Employment at the Organization by Accreditation

Variable



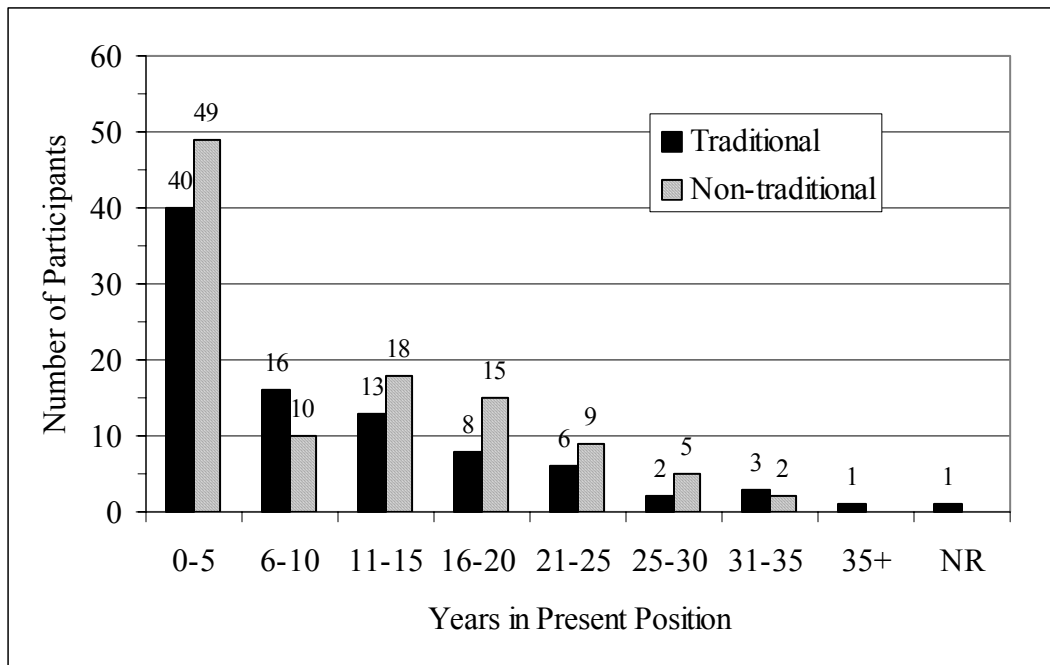
Years of Experience in Present Position

Respondents' years of employment in their present position are shown in Figure 2. Employees with 0 to 5 years of experience in their present position were the most frequently surveyed segment for both traditional and non-traditional organizations. The next largest segment of respondents were those with 6 to 10 years of experience for the traditional organizations and 11 to 15 years of experience for the non-traditional organizations.

Figure 2.

Survey Respondents' Years in Present Position by Accreditation Variable

Note: NR = No Response



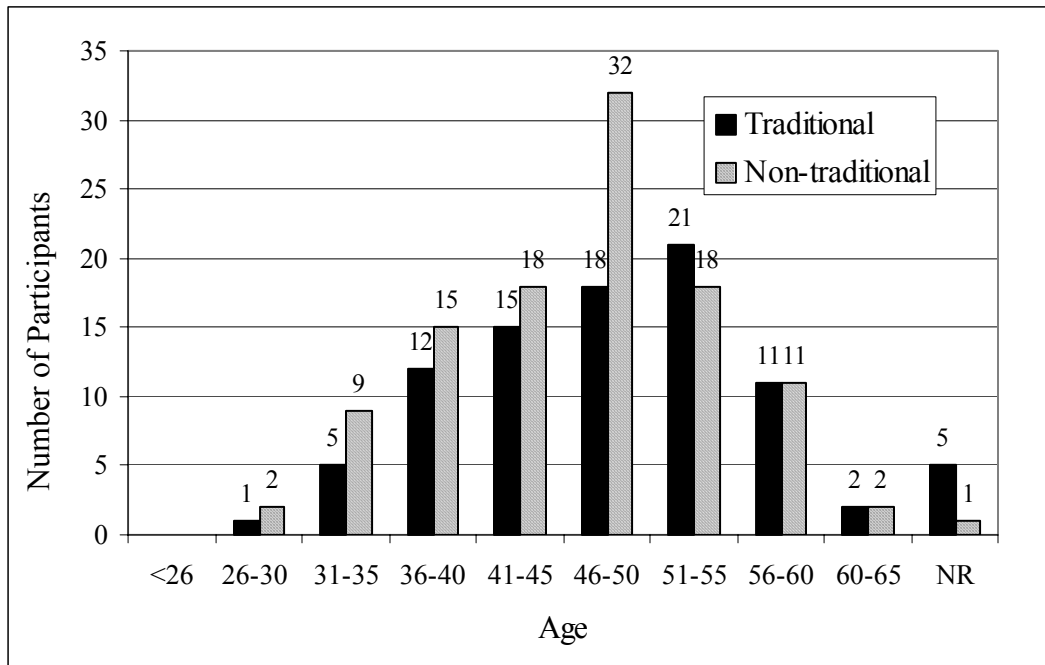
Age

The age distribution of survey respondents is demonstrated in Figure 3. The mode age group for traditionally accredited survey respondents was 51 to 55 years of age, while the mode age group for non-traditionally accredited survey respondents was younger at 46 to 50 years of age.

Figure 3.

Age Distribution of Survey Respondents by Accreditation Variable

Note: NR = No Response



Supervisory Duties

The majority of the faculty surveyed in both traditionally and non-traditionally accredited institutions indicated they did not supervise others. A slightly higher percentage of faculty surveyed in the traditionally accredited institutions indicated supervision of others as part of their duties. Table 10 compares the supervisory duties of faculty in traditionally and non-traditionally accredited institutions.

Table 10.

Comparison of Survey Respondents Supervisory Duties by Accreditation Variable

Note: *Non-traditionally accredited = AQIP institutions

	<u>Accreditation Pathway</u>					
	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>Survey Total</u>	
	Count	Percentage	Count	Percentage	Count	Percentage
Supervision Duties	23	25.5%	19	17.6%	42	21%
No Supervision Duties	65	72.2%	85	78.7%	151	77%
No Response	2	2.2%	3	2.7%	5	2%

Gender

Table 11 demonstrates the gender representation of the survey respondents.

Females comprised the majority of survey respondents and also represented the majority of respondents for both traditional and non-traditional institutions.

Table 11.

Comparison of Survey Respondents Gender by Accreditation Variable

Note: *Non-traditionally accredited = AQIP institutions

	<u>Accreditation Pathway</u>					
	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>Survey Total</u>	
	Count	Percentage	Count	Percentage	Count	Percentage
Male	36	40.0%	49	45.4%	85	43%
Female	50	55.5%	58	53.7%	108	55%
No Response	4	4.5%	1	0.9%	5	2%

This section describes the demographics of survey participants. New employees with 5 or fewer years of service with the organization and employees with 0 to 5 years of experience in their present position represented the largest segment of survey participants. Survey participants most frequently indicated their age to be between 46 and 50; the majority also indicated they did not supervise others. The survey group was comprised of more females than males.

Descriptive Statistical Analysis of Survey Questions

The descriptive analysis of survey questions will occur in three parts: (1) analysis

with respect to accreditation variable, (2) analysis in relation to individual participating institutions, and (3) analysis in relation to organizational profiles.

Analysis Related to Accreditation Variable

This portion of the chapter describes the statistical analysis of survey questions related to the accreditation variable. This section will interpret the specific findings of that analysis within the context of each of the seven thematic groups and in relationship to the overall organizational learning principles and themes discussed in the Review of Literature. Question and category scores will be analyzed and compared. Finally, overall organizational learning index scores will be discussed. The seven categorical themes are reviewed in the following order: (1) Shared Mission and Vision, (2) Organizational Culture, (3) Team Work and Team Learning, (4) Sharing of Knowledge, (5) Systems Thinking, (6) Leadership, and (7) Employee Skills and Capabilities, and Overall Organizational Learning Index Scores.

Question responses were designed using a seven-point Likert scale. A score of 4 is considered the statistical center (1 = Strongly Disagree and 7 = Strongly Agree) of the likert scale. For a specific question or an overall category score, a score above 4.00 can be interpreted as positive, in relation to each respondent's assessment of the individual organization's policies and practices.

Data from Questions 1 through 31 were sorted by accreditation variable (traditional or non-traditional) and entered into the survey matrix of the seven classification categories (see Table 12). Statistical extraction was completed for the mean (M) and standard deviation (SD) of responses both individually and within the categorical groupings. T-tests were also performed to assess whether sample means for

the two scores differed at a 95 percent confidence level for statistical significance (p value <0.05). Next the results were evaluated, correlated with research objectives and interpreted for further discussion in this chapter.

Table 12.

Survey Question Data Comparison by Accreditation Variable

Note: *Non-traditionally accredited = AQIP institutions

n for Traditional = 90 unless noted by a mean subscript a = 89 or b = 88

n for Non-Traditional = 108 unless noted by a mean subscript c = 107, d = 106, e = 105, and f = 104

♦p value indicates a statistically significant mean difference at 95 percent confidence level (p <0.05).

	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>p value</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
<u>Shared Mission/Vision</u>					
1. The organization’s vision statement identifies values to which all employees must conform.	4.91a	1.27	5.18	1.11	0.1176
2. There is widespread support and acceptance for the organization’s vision statement.	4.93a	1.21	5.25	1.17	0.0638
3. Managers and employees in this organization share a common vision of what our work should accomplish.	4.81a	1.38	5.06	1.33	0.2048
4. We have opportunities for self-assessment with respect to goal attainment.	5.17a	1.43	5.26	1.27	0.6383
Overall Score for Category	4.96	0.90	5.19	0.94	0.0800
<u>Organizational Culture</u>					
5. I can often bring new ideas into the organization.	5.23	1.52	5.52	1.29	0.1545

Learning Organizations in Higher Education

	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>p value</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
	6. From my experience, people who are new to this organization are encouraged to question the way things are done.	3.93a	1.64	4.43	
7. Innovative ideas that work are often rewarded by leadership.	4.52a	1.38	4.82	1.39	0.1238
8. In my experience, new ideas from staff are welcomed by management.	4.49b	1.51	4.94	1.39	0.0290♦
Overall Score for Category	4.56	1.25	4.93	1.13	0.0287♦
<u>Team Work and Team Learning</u>					
9. Current organizational practice encourages employees to solve problems together before discussing it with a supervisor.	4.91	1.49	5.07d	1.22	0.4245
10. Most problem solving groups in this organization feature employees from a variety of functional areas or divisions.	5.26	1.24	5.17	1.20	0.6240
11. There is much overlap in work between different units in the organization.	3.92a	1.32	4.39e	1.41	0.0183♦
12. Training in this organization is done in work teams.	3.91a	1.44	4.53	1.33	0.0020♦
Overall Score for Category	4.50	0.90	4.78	0.86	0.0230♦
<u>Sharing of Knowledge</u>					
13. I have opportunities to share my knowledge and skills learned from training with other employees.	4.73a	1.58	4.87c	1.33	0.5052
14. I often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.	4.69	1.45	4.71c	1.37	0.9156
15. New work processes that may be useful to the organization as a whole are usually shared with all employees.	4.42	1.51	4.63d	1.23	0.2842
16. We have a system that allows us to learn successful practices from other organizations.	4.16	1.47	4.59	1.35	0.0307♦
Overall Score for Category	4.50	1.20	4.70	1.10	0.2189

Learning Organizations in Higher Education

	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>p value</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
	<hr/>				
<u>Systems Thinking</u>					
17. We problem solve by not only identifying the solution, but by identifying what led to the problem and how it can be prevented.	3.81a	1.51	4.39	1.45	0.0068♦
18. Individuals and teams are encouraged to reflect on actions which led to successes or failures.	4.13	1.38	4.47e	1.40	0.0974
19. Employees are informed of how their role contributes to the overall organizational process.	4.02	1.50	4.64	1.33	0.0025♦
20. Employees are encouraged to understand the perspectives of people in other positions.	4.30	1.49	4.52e	1.36	0.2739
Overall Score for Category	4.07	1.21	4.51	1.20	0.0118♦
<hr/>					
<u>Leadership</u>					
21. Leaders in this organization are open to change and new ideas.	4.60	1.54	4.94c	1.40	0.1018
22. Leaders in this organization frequently involve employees in important decisions.	4.11	1.71	4.26c	1.64	0.5298
23. Leaders in this organization can accept criticism without becoming overly defensive.	4.16	1.55	4.48d	1.39	0.1226
24. Leaders in this organization often provide feedback that helps to identify potential problems and opportunities.	4.47a	1.36	4.60d	1.31	0.4926
25. Management skills such as leadership, coaching and team building are emphasized as much as purely technical work skills in this organization.	4.22a	1.40	4.65c	1.28	0.0290♦
Overall Score for Category	4.30	1.31	4.59	1.20	0.1109
<hr/>					
<u>Employee Skills and Competencies</u>					
26. I have opportunities to work on challenging assignments.	5.38	1.53	5.49	1.19	0.5589
27. My work makes full use of my skills and abilities.	5.40	1.65	5.17c	1.29	0.2701

Learning Organizations in Higher Education

	<u>Traditional</u>		<u>Non-Traditional*</u>		<u>p value</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
	28. I have opportunities to improve my knowledge, skills and abilities in order to undertake new work assignments.	5.31	1.55	5.28	
29. The skill training I receive can be applied to improve my work immediately.	5.41	1.34	5.40 ^f	1.15	0.9676
30. Employee training is emphasized equally at all levels in this organization.	4.36 ^b	1.61	4.53 ^c	1.59	0.4632
31. Employees in this organization are required to continuously upgrade and increase their knowledge and educational level.	4.94 ^a	1.60	4.84	1.44	0.6403
Overall Score for Category	5.14	1.20	5.11	1.08	0.8735
Overall Organizational Learning Index	4.60	0.92	4.84	0.89	0.0613

Shared Mission and Vision

The questions in the category of Shared Mission and Vision were designed to measure the effective deployment of the organization's mission and vision. The questions demonstrate an overall awareness of organizational mission and vision and their alignment with unit and personal goals. While the non-traditionally accredited institutions scored higher on all four individual questions and the overall category score, the difference was not statistically significant when compared to traditionally accredited institutions. The non-traditional score for Shared Mission and Vision ranked this category first when compared to the other six categories, while traditionally accredited organizations ranked Shared Mission and Vision second in relation to the other categories (see Table 13).

Organizational Culture

The questions in the category of Organizational Culture were designed to determine the organization's openness to new ideas and measure the organization's eagerness to promote innovation, experimentation and creativity among their employees. The non-traditionally accredited institutions scored higher on all four individual questions and the overall category score as compared to the traditional institutions. Questions 6, 8, and the overall category score also demonstrated statistically significant mean differences as demonstrated by the p values of <0.05 (see Table 12). Results of Questions 6 and 8 indicate the non-traditionally accredited institutions encourage new employees to question the status quo and welcome new ideas brought by these individuals to the organization more so than traditionally accredited institutions. The statistically significant overall category score illustrates that non-traditional institutions promote innovation, experimentation and innovation to a greater degree than traditionally accredited institutions. Both traditional and non-traditional institutions' scores for Organizational Culture ranked this category third in comparison to the other seven category scores (see Table 13).

Team Work and Team Learning

The questions in the category of Team Work and Team Learning were designed to determine the organization's utilization of teams and team development strategies. Non-traditional institutions scored higher on three of the four individual questions, while traditional institutions scored higher on Question 10 that stated, "most problem solving groups in this organization feature employees from a variety of functional areas or divisions". The p value for question 10 (>0.05) did not demonstrate a statistically

significant difference (see Table 12). Non-traditionally accredited organizations had a higher overall category score. Non-traditional organizations' scores on Questions 11, 12 and the overall category score demonstrated statistically significant mean differences as demonstrated by the p values of <0.05 . The results of Questions 11 and 12 indicate the non-traditional organizations are structured to promote overlap and interaction between units and also encourage training within work teams when compared to traditional organizations. The statistically significant overall category score indicate that non-traditional institutions promote a team structure, concepts and practices to a greater degree than traditionally accredited institutions.

Sharing of Knowledge

The questions in the category of Sharing of Knowledge were designed to measure each respondent's assessment of the existence and effectiveness of practices that incite the spread of knowledge within the organization. The non-traditionally accredited institutions scored higher on all four individual questions and overall category score. Question 16 indicates statistically significant mean differences as demonstrated by the p values of <0.05 (see Table 12). Results of Question 16 indicate the non-traditionally accredited institutions have a system that allows them to learn successful practices from other organizations when compared to the traditionally accredited institutions. While, non-traditional institutions have a higher overall category score, the difference was not statistically significant.

Systems Thinking

The questions in the category of Systems Thinking were designed to uncover the respondents' appraisals of the organizational environment as related to an individuals

awareness beyond his or her own job functional area, problem solving, and use of reflection to review action outcomes. The non-traditionally accredited institutions' scored higher on all four individual questions and overall category score. Questions 17 and 19, along with the overall category score, demonstrated statistically significant mean differences as demonstrated by the p values of <0.05 (see Table 12). Results of Questions 17 and 19 indicate the non-traditionally accredited institutions problem solve by identifying root causes, and their employees are informed of how their role contributes to overall organizational performance to a greater degree than traditionally accredited institutions. The overall category score illustrates that non-traditional institutions have integrated systems thinking into their organization more so than traditionally accredited institutions. Both traditional and non-traditional institutions scores for Systems Thinking ranked this category last when compared to the other seven category scores (see Table 13).

Leadership

The questions in the category of leadership were designed to determine the presence and effectiveness of leadership and managerial practices that foster organizational learning. The non-traditionally accredited institutions scored higher on all four individual questions and the overall category score. Question 25 indicates a statistically significant mean difference as demonstrated by the p value of <0.05 (see Table 12). Results of Question 25 indicate the non-traditional organizations emphasize management skills such as leadership, coaching and teamwork within the organization to a greater degree than the traditional organizations. While the overall category score shows a higher non-traditional score than traditional score, the mean difference is not

statistically significant.

Employee Skills and Capabilities

The questions in the category of Employee Skills and Capabilities were designed to determine the organizational training philosophy and individual skill development and utilization within the organization. Traditionally accredited organizations scored higher on four of the six category questions and the overall category score. Although higher than the non-traditionally accredited institutions on Questions 27, 28, 29, 31 and the overall category score, the mean difference on these items were not statistically significant as demonstrated by the p values of >0.05 (see Table 12). The traditionally accredited organizations score for Employee Skills and Capabilities ranked this category first in relation to the other six category scores, while non-traditionally accredited organizations ranked the Employee Skills and Capabilities category second (see Table 13).

Overall Learning Index

The 31 survey questions and 7 categories were based on common themes of learning organizations identified in the Review of Literature. The overall Institutional Learning Indexes were calculated utilizing the mean scores for Questions 1 through 31. Although non-traditional organization's overall Organizational Learning Index was higher than traditionally accredited organizations, the p value of 0.0613 indicates that the mean difference was not quite statistically significant (see Table 12).

This section compared question, category and overall Organizational Learning Index scores for traditionally and non-traditionally accredited institutions. Non-traditional institutions scored statistically significantly higher on eight of 31 survey

Learning Organizations in Higher Education

questions. While non-traditional organizations also scored higher in all seven categories (see Figure 4), only three of the seven demonstrated statistically significant overall category scores. The comparison of overall Organizational Learning Indexes did not demonstrate a statistical difference in scores.

Figure 4.

Category Scores and Organizational Learning Index as related to Accreditation Variable

Non-traditional Accreditation = AQIP institutions

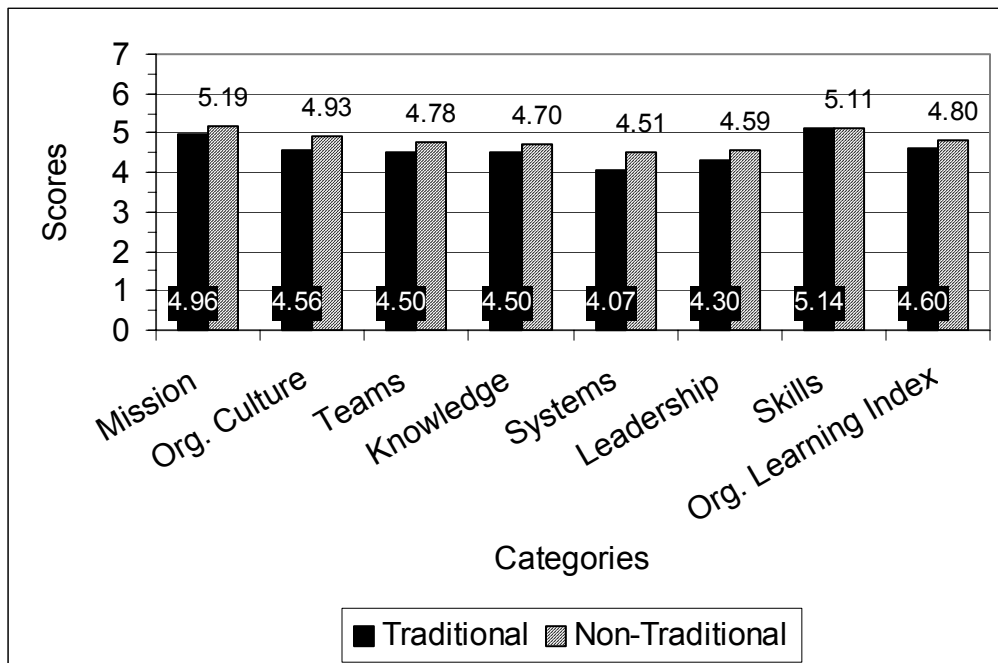


Table 13.

Category Score Rankings by Accreditation variable

Note: *Non-traditionally accredited = AQIP institutions

<u>Traditional</u>		<u>Category</u>	<u>Non-Traditional</u>	
<u>Score</u>	<u>Rank</u>		<u>Score</u>	<u>Rank</u>
4.96	2	Shared Mission and Vision	5.19	1
4.56	3	Organizational Culture	4.93	3
4.50	4/5	Team Work and Team Learning	4.78	4
4.50	4/5	Sharing of Knowledge	4.70	5
4.07	7	Systems Thinking	4.51	7
4.30	6	Leadership	4.59	6
5.14	1	Employee Skills and Capabilities	5.11	2
4.60		Overall Learning Index	4.84	

Analysis Related to Participating Institutions

This portion of the chapter describes the statistical analysis of category scores and overall Organizational Learning Indexes of the 12 participating institutions. Table 14 compares the category scores and overall Organizational Learning Indexes of the traditional accredited institutions while Table 15 demonstrates the category scores and Organizational Learning Indexes of the non-traditionally accredited institutions.

The results will be reviewed in relation to the seven categorical themes: (1) Shared Mission and Vision, (2) Organizational Culture, (3) Team Work and Team Learning, (4) Sharing of Knowledge, (5) Systems Thinking, (6) Leadership, (7) Employee Skills and Capabilities and Overall Learning Index Scores.

Learning Organizations in Higher Education

Table 14.

Mean Category and Organizational Learning Index Scores for Traditional Institutions

Note: Institutions are represented by the letters A-F to protect anonymity; ¹n =22; ²n =13;

³n =20; ⁴n =20; ⁵n =2; ⁶n =13

	<u>Traditionally Accredited Institutions</u>											
	<u>A¹</u>		<u>B²</u>		<u>C³</u>		<u>D⁴</u>		<u>E⁵</u>		<u>F⁶</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Shared Mission and Vision	4.47	1.03	5.06	0.76	5.30	0.64	5.05	0.63	4.88	1.23	5.02	1.20
Organizational Culture	3.85	1.17	4.56	0.87	4.90	1.23	4.75	1.09	3.63	1.59	5.06	1.51
Team Work & Team Learning	4.31	0.72	4.46	0.65	4.37	1.14	4.83	0.71	3.25	0.35	4.73	1.08
Sharing of Knowledge	4.34	0.93	4.38	1.08	4.66	1.49	4.81	1.00	3.63	1.94	4.31	1.50
Systems Thinking	3.60	0.91	4.15	0.77	4.26	1.42	4.25	1.12	3.67	2.36	4.27	1.61
Leadership	3.79	1.08	4.40	0.58	4.47	1.42	4.43	1.16	3.30	2.69	4.78	1.86
Employee Skills & Capabilities	4.54	1.48	5.36	0.61	5.13	1.15	5.50	1.06	4.33	0.94	5.50	1.17
Organizational Learning Index	4.14	0.77	4.67	0.56	4.74	0.97	4.84	0.77	3.82	1.48	4.85	1.27

Learning Organizations in Higher Education

Table 15.

Mean Category Organizational Learning Index Scores for Non-Traditional Institutions

Note: Institutions are represented by the letters G-L to protect anonymity; ¹n =25; ²n =17;

³n =17; ⁴n =24; ⁵n =21; ⁶n =4

	<u>Non-Traditionally Accredited (AQIP) Institutions</u>											
	<u>G¹</u>		<u>H²</u>		<u>I³</u>		<u>J⁴</u>		<u>K⁵</u>		<u>L⁶</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Shared Mission and Vision	5.28	0.57	5.71	0.92	4.65	1.10	5.33	0.81	5.30	0.59	3.25	1.43
Organizational Culture	4.87	0.74	5.26	0.92	4.26	1.17	5.35	1.22	5.13	0.86	3.06	1.72
Team Work & Team Learning	4.97	0.48	4.94	0.82	4.47	0.80	4.78	0.99	4.92	0.91	3.63	1.6
Sharing of Knowledge	4.82	0.58	4.85	1.41	4.43	1.29	4.84	1.20	4.67	0.82	3.88	2.02
Systems Thinking	4.70	0.54	4.68	1.53	3.96	1.17	4.70	1.42	4.64	0.92	3.13	1.69
Leadership	4.33	0.69	5.34	0.83	4.21	1.13	4.84	1.48	4.70	1.05	2.50	1.52
Employee Skills & Capabilities	4.44	0.77	5.92	0.70	5.01	0.99	5.40	1.24	5.06	1.00	4.83	1.58
Organizational Learning Index	4.74	0.53	5.29	0.76	4.45	0.97	5.05	1.05	4.92	0.72	3.52	1.12

Shared Mission and Vision

Mean scores for the twelve institutions ranged from a low score of 3.25 for Organization L to a high score of 5.71 for Organization H. Both institutions are non-traditionally accredited institutions. Four of the top five scores in this category are from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization C, a private university with a non-unionized faculty.

Organizational Culture

Mean scores for the 12 institutions ranged from a low score of 3.06 for Organization L to a high score of 5.35 for Organization J. Both institutions are non-traditionally accredited institutions. The top three scores in this category are from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization F, a public community college with a unionized faculty.

Team Work and Team Learning

Mean scores for the 12 institutions ranged from a low score of 3.25 for Organization E to a high score of 4.97 for Organization G. Organization E is a traditionally accredited institution while Organization G is a non-traditionally accredited institution. Four of the top five scores in this category were from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization D, a public technical college with a unionized faculty.

Sharing of Knowledge

Mean scores for the twelve institutions ranged from a low score of 3.63 for organization E to a high score of 4.85 for Organization H. Organization E is a traditionally accredited institution while Organization H is a non-traditionally accredited

institution. The top three scores in this category are from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization D, a public technical college with a unionized faculty.

Systems Thinking

Mean scores for the 12 institutions ranged from a low score of 3.13 for Organization L to a high score of 4.70 for both Organizations G and J. All three institutions are non-traditionally accredited institutions. The top four scores in this category are from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization D, a public technical college with a unionized faculty.

Leadership

Mean scores for the 12 institutions ranged from a low score of 2.50 for Organization L to a high score of 5.34 for Organization H. Both institutions are non-traditionally accredited institutions. The top two scores in this category are from non-traditionally accredited institutions. The highest traditionally scoring organization in this category was Organization F, a public technical college with a unionized faculty.

Employee Skills and Capabilities

Mean scores for the 12 institutions ranged from a low score of 4.33 for Organization E to a high score of 5.92 for Organization H. Organization E is a traditionally accredited institution while Organization H is a non-traditionally accredited institution. The highest traditionally scoring organizations in this category were Organization D, a public technical college with a unionized faculty and Organization F, a public community college with a unionized faculty.

Overall Organizational Learning Indexes

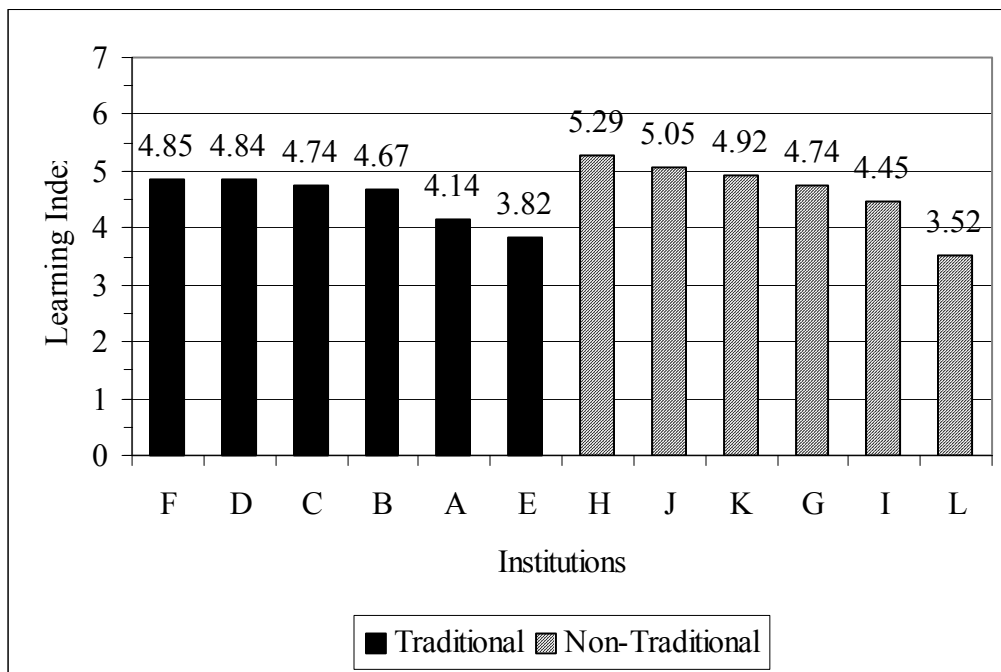
Figure 5 displays the mean Organizational Learning Indexes of the 12 institutions ranged from a low score of 3.52 for Organization L to a high score of 5.29 for Organization H. Both organizations are non-traditionally accredited institutions. The top three Organizational Learning Indexes belong to non-traditionally accredited institutions while the highest traditionally scoring organizations in this category was Organization F, a public community college with a unionized faculty.

Figure 5.

Learning Index Scores Related to Accreditation Process

Note: Institutions are represented by the letters A-L to protect anonymity

Non-traditional Accreditation = AQIP institutions



This section compared the category scores and established Organizational-Learning Indexes for the 12 participating institutions. A non-traditionally accredited

institution possessed the highest category for all seven categories, and three non-traditionally accredited organizations exhibited the three highest Organizational Learning Indexes.

Analysis Related to Organizational Profiles

This section compares Organizational Learning Indexes to the organizational profile factor. The three organizational factors analyzed include institutional type, funding sources and presence of faculty unions.

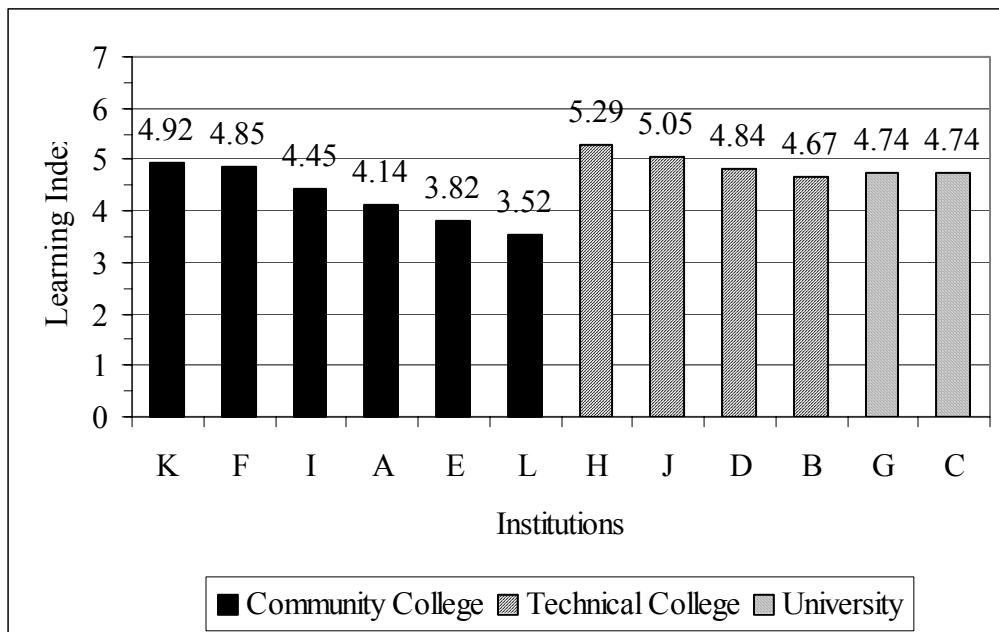
Institutional Type

Figure 6 illustrates the relationship of Organizational Learning Index scores between community colleges, technical colleges and universities.

Figure 6.

Learning Index Scores Related to Institutional Type

Note: Institutions are represented by the letters A-L to protect anonymity



Learning Organizations in Higher Education

Technical colleges display the top two Organizational Learning Indexes, followed by two community colleges and the two universities respectively. Organizations I, A, E and L, which are all community colleges, occupy the bottom four positions, while the two universities demonstrate identical Organizational Learning Indexes.

A one-way analysis of variance (ANOVA) was performed on Organizational Learning Indexes relative to the Institutional Type. A critical value of 0.01 was established with an F test of 4.73 at 2, 195 df. The F-test exceeded the established F-test threshold indicating that institutional type variable statistically influences the Organizational Learning Index score.

Table 16.

Learning Index Comparison by Institution Type Variable

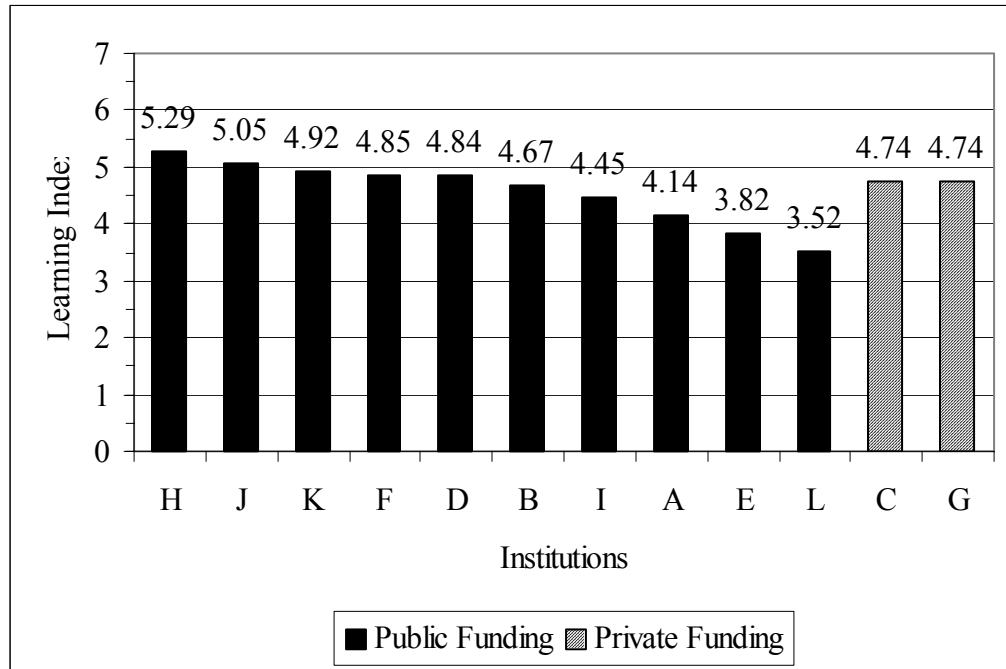
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>F-Test</u>	<u>p Value</u>
University	45	4.74	0.75		
Community College	79	4.49	0.99		
Technical College	74	4.98	0.86		
				5.69	0.004

Funding

Figure 7 illustrates the relationship of Organizational Learning Index scores to public and private institutional funding sources.

Figure 7.
Learning Index Scores Related to Funding Sources

Note: Institutions are represented by the letters A-L to protect anonymity



Publicly funded institutions demonstrated the five highest Organizational Learning Indexes followed by the two privately funded organizations (with identical Organizational Learning Indexes), and the remaining five publicly funded institutions.

Table 17

Learning Index Comparison by Funding Variable

	Funding						
	Public			Private			p value
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	
Organizational Learning Index	153	4.73	0.96	45	4.74	0.75	0.9385

Table 17 shows the Organizational Learning Index mean and SD for each variable. The high p value (>0.05) suggests that the difference in mean scores is not a statistically significant variable.

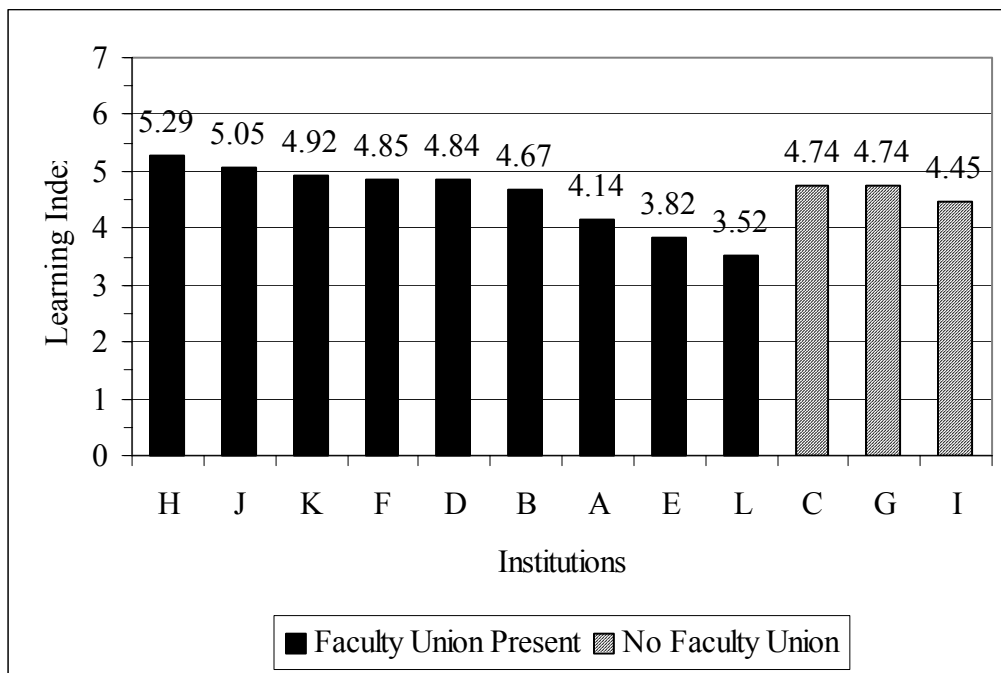
Faculty Union Presence

Figure 8 illustrates the relationship of Organizational Learning Index Scores between institutions with a faculty union and those without a faculty union.

Figure 8.

Learning Index Scores Related to Faculty Union Presence

Note: Institutions are represented by the letters A-L to protect anonymity



The top five Organizational Learning Scores are from institutions with a faculty union. Institutions without a faculty union occupy Positions 6,7, and 8 on the scale, while the remaining four scores are from organizations with faculty unions.

Table 18 shows the Organizational Learning Index mean and SD for each variable. The high p value (>0.05) suggests that the difference in mean scores is not a statistically significant variable.

Table 18

Learning Index Comparison by Union Variable

	Faculty Union Presence						
	<u>Yes</u>			<u>No</u>			<u>p value</u>
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	
Organizational Learning Index	136	4.76	0.95	62	4.66	0.82	0.4689

This section compared the Organizational Learning Indexes as related to the three organizational profile variables. Results showed that private or public funding sources and presence or lack of a faculty union were not statistically relevant to the Organizational Learning Index. Data appears to suggest a strong correlation between Institutional type (community college, technical college or university) and the Organizational Learning Index for the institutions.

CHAPTER FIVE

Summary and Conclusions

This chapter will summarize the critical content of Chapters One through Four, draw conclusions from the study, discuss the implications of the data and suggest avenues for further research.

Summary of Critical Content

Chapter One identified the purpose of the study which was to quantify, measure and compare organizational learning maturity scores of colleges and universities utilizing traditional and non-traditional (Academic Quality Improvement Project) accreditation processes. It supported the significance of the study by identifying the challenges faced by higher education and quoting respected practitioners within the field of higher education and organizational development who reinforced the importance of quality, flexibility and a systems approach as strategies to meet the new strategic opportunities in higher education. As educational leaders ponder whether to pursue an alternative accreditation process, they may want to assess their institution's readiness to adopt a new alternative accreditation process by first measuring the maturity of their institution as a learning organization.

Chapter Two defined and developed the concepts of learning organizations and discussed issues facing higher education. The review of literature focused on seven primary areas: (1) the definition of a learning organization; (2) characteristics of learning organizations; (3) common themes of learning organizations; (4) forces of change in higher education; (5) continuous quality improvement in higher education; (6) accreditation in higher education; and (7) AQIP principles and criteria. The review of

literature demonstrates the overlap and alignment of characteristics required of both learning organizations and higher educational institutions utilizing the AQIP process.

Chapter Three provided a detailed explanation of the research methodology, research design, population selection, instrumentation, validation procedure, instrument modifications, data collection goals, and survey limitations. Twenty-five surveys were sent to full-time faculty at 12 institutions. Six institutions were traditionally accredited while the other six were non-traditionally accredited using the Academic Quality Improvement Project (AQIP) process. The survey was designed to determine the faculty's perspective of their organization's effectiveness in practicing organizational learning. Research goals were to:

1. Correlate results in relation to the accreditation process
2. Create an organizational learning index for institutions participating in the AQIP process
3. Establish baseline Organizational Learning Indexes for participating institutions
4. Share results with participating institutions
5. Provide anonymous comparison data for participating institutions

Chapter Four presented survey results in two sections. Section one described the demographics of survey participants. Section two reported the descriptive statistical analysis of the survey questions related to the accreditation variable, examined category scores and organizational learning indexes of the 12 participating institutions, and analyzed the organizational learning indexes related to the organizational profile characteristics which included institutional type, funding sources and presence of a

faculty union.

Conclusions

Results of the survey indicate concepts of organizational learning are present in higher education. In general, the majority of institutions were utilizing practices that are characteristic of learning organizations. Collectively, the non-traditionally accredited institutions had a higher overall Organizational Learning Index and scored higher in the six categories of Shared Mission/Vision, Organizational Culture, Team Work and Team Learning, Sharing of Knowledge, Systems Thinking and Leadership. Non-traditionally accredited colleges and universities demonstrated statistically significant scores in the three categories of Organizational Culture, Team Work and Team Learning, and Systems Thinking. The results indicate the non-traditionally accredited (AQIP) institutions are more mature than traditionally accredited institutions in those categories.

When comparing individual responses, the non-traditionally accredited institutions scored statistically significantly higher on 8 of 31 survey questions. This would indicate that the AQIP institutions have more fully developed these practices within their organizations. Those eight practices would be related directly to these eight survey questions:

6. From my experience, people who are new to this organization are encouraged to question the way things are done.
8. In my experience, new ideas from staff are welcomed by management.
11. There is much overlap in work between different units in the organization.
12. Training in this organization is done in work teams.
16. We have a system that allows us to learn successful practices from other

organizations.

17. We problem solve by not only identifying the solution, but by identifying what led to the problem and how it can be prevented.
19. Employees are informed of how their role contributes to the overall organizational process.
25. Management skills such as leadership, coaching and team building are emphasized as much as purely technical work skills in this organization.

The eight statements are scattered throughout five of the seven survey categories. This would indicate that AQIP institutions are developing a diffuse and balanced maturity as learning organizations and mirror Senge's premise that it is vital the 'disciplines' develop (1990).

Another goal of the research was to establish an Organizational Learning Index for the 12 participating institutions. Results were shared with each participating institution, while preserving the anonymity of the other 11 institutions. Ten of the 12 institutions surveyed had Organizational Learning Indexes above 4.0, indicating that the majority of surveyed institutions demonstrate characteristics of learning organizations.

The final goal of the research was to compare the Organizational Learning Indexes of the participating institutions in relation to the three variables of the organizational profile. Of the three variables, only Institutional Type demonstrated a statistically significant relationship. The results infer that technical colleges are the most mature organizational type, followed by universities and community colleges, respectively.

Discussion

The results of the research were mixed. While the non-traditional organizations had a higher organizational learning index than the traditional schools, the score was not statistically significant. The researcher believes there may be one of three explanations.

1. Since the Academic Quality Improvement Project is a fairly new option and the schools surveyed embarked on the process in November 2000, there may not have been a sufficient time frame to effect change within these organizations to differentiate a statistical significant difference.
2. Many institutions that may have scored high as learning organizations are still categorized as “traditionally accredited,” because the institution will not have to declare an accreditation process until their accreditation is up for renewal.
3. There is no correlation between institutions choosing the alternative accreditation pathway and organizational learning maturity.

When analyzing category scores, both the traditional and non-traditional institutions scored fairly high (near 5.0) in the categories of Shared Mission/Vision and Employee Skills and Capabilities. These appear to be the strengths of all higher educational institutions. Many higher educational institutions have a clear mission and vision, often times focused on the delivery of education to a specific geographic region or serving a specific public sector of the region. The clarity of this type of mission and vision may account for the high scores in this category. Education hires faculty based on educational credentials and expertise in their discipline. Higher education encourages their faculty to maintain their expertise through continuing education, research and other professional activities. This encouragement ensures the viability and credibility of the

courses taught by faculty. It should be no surprise then that higher education in general espouses the continued development of employees' skills and capabilities.

Overall, the opportunities for improvement in higher education lie in the categories of Leadership and Systems Thinking. Traditionally, the leadership style within higher education has been hierarchical, and an organizational hierarchy is not compatible with the flatter organizational structure of a learning organization. Three of the 12 institutions scored below 4.0, inferring the presence of a strong hierarchy. Eight of the 12 institutions scored between 4.0 and 4.84. To fully embrace the concepts of a learning organization, the researcher suggests higher education remodel its leadership structure and modify their leadership style to reflect more shared decision-making. One institution scored 5.34, which demonstrates that a shared leadership model is present and functioning in higher education.

Organizational hierarchy may also contribute to the low Systems Thinking score. This type of organizational structure can often promote the building of "silos" within higher education. Each "college" within a university or "division" with a college often views itself as autonomous, and interaction between the units is often not actively promoted. This mindset leads to the development of independent, duplicative solutions to systemic problems that the units view as discrete. Four of the twelve institutions scored below 4.0, indicating a deficiency in systems thinking and also had the four lowest leadership scores (three below 4.0). Higher education can actively support systems thinking by promoting the use of cross-functional problem solving teams, who seek the root cause of problems and not simply a solution.

The research results indicate the non-traditional AQIP institutions are statistically

significantly more mature than the traditional institutions in the three categories of Organizational Culture, Team Work and Team Learning, and Systems Thinking.

With respect to Organizational Culture, the AQIP colleges and universities are clearly open to new ideas and change. This openness may be attributed to the higher percentage of new employees employed at those institutions. New employees (defined as those having 0 to 5 year's employment) comprised 43 percent of the AQIP respondents as compared to 31 percent of the traditional respondents. Because of the employee population, it may be easier for the institution to transition to a culture that is conducive to change, innovation and new ideas.

As for the non-traditional organizations' Team Work and Team Learning score, the research results suggest these organizations more readily embrace team concepts. An effective team approach can minimize compartmentalization and enhances communication within the organization. AQIP organizations share the work within the organization and train their employees in teams to a greater extent than the traditionally accredited organizations. These observations are supported by the low p value on Survey Question 11 (<0.05) and survey Question 12 (<0.01) respectively. Of the 31 survey questions, question 12, "Training in this organization is done in work teams," pointed to the most significant difference between traditionally accredited and non-traditionally accredited institutions. This team approach promotes creativity and problem solving and fosters innovation and vitality within the non-traditional organizations.

Although Systems Thinking is the lowest scoring category for non-traditional institutions, these institutions are clearly more adept at taking a systems approach to problem solving. These organizations are much less content to solve problems by merely

fixing the symptom; rather they are focused on diagnosing and eliminating the underlying problem. Their faculty can also clearly identify how the work they do impacts the organization as a whole. Both statements are supported by the low p value (<0.01) on Survey Questions 17 and 19. These two statements exhibited a dramatic difference between traditionally and non-traditionally accredited institutions. Systems thinking will be critical in assisting the non-traditional organizations in the achievement of their AQIP goals and targets. A systems approach will provide the framework for learning and improvement in the organization and enhance overall organizational performance.

Finally, the most significant and the most surprising research result for the researcher was effect of institutional type on the Organizational Learning Index. The results suggest that technical colleges possess the highest level of organizational learning maturity, followed by universities and community colleges respectively. It is the researcher's observation that the technical college faculty are often required to have work experience in their discipline prior to being hired as a faculty member, whereas university and community college faculty may have had little work experience outside academe. Given that the concept of a "learning organization" was planted in business and industry in the late 1980s and the early 1990s, and given that "new employees" (those with 0 to 5 years of organizational employment) comprised the largest segment of survey respondents, it could be inferred that the technical college faculty had worked in business and industry and therefore were predisposed to the practices and concepts of "learning organizations".

It may be that universities scored higher than community colleges utilizing the same premise. Many university faculty act as consultants within their given disciplines

and, as such, interact more closely with business and industry than community college faculty.

Further Research

The study collected and analyzed data that can be used to identify strengths and weaknesses of higher education as related to organizational learning while determining baseline Organizational Learning Indexes of participating institutions. Further research could add to that foundation.

1. Repeat the survey using the same institutions in three to five years. The findings from such a study could be compared to the findings of this study to determine if the AQIP process positively affects the Organizational Learning Indexes. The results of this study could infer that the AQIP process is a tool that enhances an institution's maturity as a learning organization.
2. Replicate the study and survey all employee groups within the organizations. The findings from this research could validate the faculty perspectives demonstrated in this research and demonstrate continuity of practices within the organization. Results may support policy and practice within the institutions.
3. Conduct a study that surveys employees of business and industry and higher education. Results of this study would show higher education's Organizational Learning Index in relation to Organizational Learning Index of business and industry. This type of research could have important implications for both policy and practice in higher education.

REFERENCES

- Academic Quality Improvement Project (2001, August 27). Institutions participating and accepted in the Academic Quality Improvement Project. Retrieved September 10, 2001 from the World Wide Web: <http://www.aqip.org/members.html>
- Alfred, R., Carter, P. (2000). Contradictory colleges: thriving in an era of continuous change. New Expeditions - American Association of Community Colleges, Issues paper (6), 1-16.
- Axland, S. (1991). Looking for a Quality Education? Quality Progress, 24(10), 61-72.
- Axland, S. (1992). A higher degree of quality. Quality Progress, 25(10), 41-61
- Bailey, D., Bennett, J.V. (1996). The realistic model of higher education: total quality management is beginning to make an appearance in U.S. colleges and universities. Quality Progress, 29(11), 77-79.
- Bennett, J., O'Brien, M. (1994). The building blocks of the learning organization. Training, 31(6), 41-49.
- Biemiller, L. (2000). Accrediting group changes standards to allow colleges to set their own goals. Chronicle of Higher Education, 46(33), A43. Retrieved March 10, 2001 from the World Wide Web: www.EBSCOhost (ERIC database).
- Bolman, L., Deal, T. (1991). Refraining organizations: Artistry, choice, and leadership. San Francisco, CA: Jossey-Bass.
- Continuous Quality Improvement Network (2001). CQIN.org. Retrieved September 10, 2001 from the World Wide Web: <http://www.cqin.org>

Learning Organizations in Higher Education

Cornesky, R., McCool, S., Byrnes, L., Weber, R. (1991). Implementing Total Quality in Higher Education. Madison, WI: Magna Publications, Inc.

Council for Higher Education Accreditation (2001, June). About CHEA.

Retrieved June 25, 2001 from the World Wide Web:

<http://www.chea.org/About/index.html>

Department of Education (2001). Accreditation in the U.S. Retrieved April 18, 2001 from the World Wide Web:

<http://www.ed.gov/offices/OPE/accreditation/accredus.html>

Dever, J. (1997). Reconciling educational leadership and the learning organization. Community College Review, 25(2), Retrieved September 17, 2001 from the World Wide Web: www.EBSCOhost.com (ERIC database).

Dew, J. (2000). Roll quality roll. Quality Progress, 33(9), 49-54.

Diamondstone, B. (2000). Baldrige opens door to education and health care. Training & Development, 54(2), 258-259. Retrieved October 13, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database)

Eaton, J. (2001). Regional accreditation reform. Change, 33(2), Retrieved June 25, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database).

Fedderson, B (1999). Applying Systemsthinking. Community College Week, 12(6), 5.

Learning Organizations in Higher Education

Foucar-Szocki, D., Mitchell, R., Larson, T., Harris, L., Sherman, N., James Madison University (2001). Layers of Learning: Promoting Performance Improvement and Action Learning in Higher Education. Proceedings of the 2001 Academy of Human Resource Management, USA, I-5

Freiberg, K., Freiberg, J. (1996). Nuts! Southwest Airlines Crazy Recipe for Business and Personal Success. Austin, TX: Bard Press.

Garvin, D. (1993). Building Learning Organizations. Harvard Business Review, 71, (July-August) 78-91.

Gephart, M.A., Marsick, V.J. (1996). Learning organizations come alive. Training & Development, 50(12), 35-45.

Goh, S. (1998). Toward a learning organization: the strategic building blocks. S.A.M. Advanced Management Journal, 63(2), 15-20. Retrieved June 27, 2001 from the World Wide Web: www.EBSCOhost.com

Goh, S., Richards, G. (1997). Benchmarking the Learning Capabilities of Organizations. European Management Journal, 15(5), 575-183.

Jasinski, J. (1999). Connecting quality improvement practices to reaccreditation. Quality Progress, 32(9), 90-93. Retrieved June 25, 2001 from the World Wide Web: Dow Jones Interactive database @ <<http://ptg.djnr.com/ccroot/asp/publib/story.asp>

Kaplan, R., Norton, D. (1996). Translating strategy into action: The Balanced Scorecard (1st ed., pp. 126-146). Boston, MA: Harvard Business School Press.

Karapetrovic, S., Rajamani, D., Willborn, W. (1999). University, Inc. Quality Progress, 32(5), 87-95. Retrieved June 15, 2001 from the World Wide Web: from Dow Jones Interactive database @ <<http://ptg.djnr.com/ccroot/asp/publib/story.asp>>

Learning Organizations in Higher Education

Karathanos, D. (1999). Quality: Is education keeping pace with business? Journal of Education for Business, 74 (4), 231-235.

Karathanos, D., Karathanos, P. (1996). The Baldrige education pilot criteria 1995: an integrated approach to continuous improvement in education. Journal of Education for Business, 71(5), 272-277. Retrieved October 13, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database)

Lenn, M. (1990). The role and value of accreditation in American higher education: at home and abroad. Cross Currents, 40(3), 213-219. Retrieved November 11, 2001 from the World Wide Web: www.EBSCOhost.com (MasterFILE Premier database)

Lewis, R.G., Smith, D.H. (1994). Total Quality in Higher Education. Delray Beach, FL: St. Lucie Press.

McMurtrie, B. (1999). Assessing the Group that Assesses Accreditation. Chronicle of Higher Education, 43(12), A41-43. Retrieved March 12, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database).

McMurtrie, B. (2000). Accreditors Revamp Policies to Stress Student Learning. Chronicle of Higher Education, 46(44), A29-31. Retrieved June 25, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database)

Middle States Commission on Higher Education (2001). Frequently asked questions. Retrieved August 26, 2001 from the World Wide Web: <http://www.msache.org/ques1.html>

Mitchell, N., McAdam, R. (1999). Exploring components of business improvement in the business sector. Total Quality Management, 10(4&5), S653-S658.

National Institute for Standards and Technology (2001, March 3). Frequently asked questions and answers about the Malcolm Baldrige National Quality Award.

Retrieved August 30, 2001 from the World Wide Web:

http://www.nist.gov/public_affairs/factsheet/baldfaqs.htm

North Central Association Commission on Institutions of Higher Education (2000). AQIP Academic Quality Improvement Project [Brochure]. Chicago, IL: Author.

Quality Progress (2000). North Central Association introduces new higher education accreditation model. Quality Progress, 33(6), 24-25.

Rasch, L. (1997). On Learning to Bend. Community College Week, 9(20), 4-5.

Senge, P. (Ed.). (1990). The fifth discipline. New York: Doubleday.

Senge, P., Kleiner, A., Roberts, C., Ross, R., Smith, B. (1994). The fifth discipline fieldbook. New York: Doubleday.

Siegel, P. (2000). Using Baldrige to improve education. Training & Development, 54(2), 66-68.

Spanbauer, S. J. (1996). Reengineering education with quality. Indianapolis, IN: USA Group Research Institute.

Spangehl, S. (2000, April 1). Information for institutions and other interested in systematic, continuous improvement. Retrieved March 16, 2001 from the World Wide Web: <http://www.aqip.org/instinfo.html>

Stevenson, J. (2000). The modern university provost. Education, 121(2), 347-349.

Sumberg, B. (2000). Linking business needs and lessons learned to education. Training & Development, 54(2), 70.

Learning Organizations in Higher Education

Tribus, M. (1997). Transforming an enterprise to make quality a way of life. Total Quality Management, 8(2/3), S44-S54. Retrieved March 15, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database)

Wallace, J. (1999). The case for student as customer. Quality Progress, 32(2), 47-51.

Walsh, K. (2000). IBM: student achievement with Baldrige concepts and tools. Training and Development, 54(2), 63-64. Retrieved October 13, 2001 from the World Wide Web: www.EBSCOhost.com (Academic Search Elite database)

Welch, C. (2001). Total Quality in Education. American Society of Quality - QED News, VII(3), 11-12.

Learning Organizations in Higher Education

APPENDICES

Learning Organizations in Higher Education

Appendix A

Letter of Permission

Hi Diane:

I have attached a soft copy the survey to this message. It is in word 7.0. You can modify the personal data section to fit your needs, you can also add one or two questions that may be of particular interest to the organization that you survey after Q48.

I am working on a new version of the coding instructions so that it is clearer and will forward it to you in due course. I am giving you permission to use the survey for research purposes only. You are to acknowledge this permission when using the survey.

Good luck in your research. If you need further information let me know. I am retrieving my messages remotely from this e-mail address as I will be traveling on my sabbatical leave for the next 6-months. You can continue to use my university e-mail address.

Swee C. Goh
Professor
University of Ottawa

>From: "Neefe, Diane" <NeefeD@western.tec.wi.us>
>To: "goh@admin.uottawa.ca" <goh@admin.uottawa.ca>
>Subject: Organizational Learning Survey
>Date: Sat, 7 Jul 2001 14:28:59 -0500
>

>Dr. Goh
>

>I am pursuing my MS in Training and Development. After much research I >discovered your 1997 article in the European Management Journal on "Benchmarking the Learning Capabilities of Organizations". I would very much >like to obtain a copy of the survey and have your permission to utilize the >survey as the tool for my research project.

>
>Since I am tapping into my work email from home - I will include all >pertinent contact information below.

>
>Thank you for taking time to respond to me. I look forward to hearing from >you soon!
>

>Diane Osterhaus Neefe
>CQI/Evaluation Specialist
>Western Wisconsin Technical College
>608-785-9151
>neefed@western.tec.wi.us

THE LEARNING ORGANIZATION SURVEY

CONFIDENTIAL WHEN COMPLETED

The purpose of this survey is to gather information concerning organizational factors and management practices that may influence the learning capability of organizations.

There are no “right” or “wrong” answers. Please reflect carefully and answer all questions as honestly as possible based upon **your** knowledge of the organization. Your response will be kept confidential and will be aggregated with other responses so individual respondents cannot be identified.

Some questions in this survey might sound similar to others. Please answer **ALL** of the questions.

Thank you for taking the time to fill out this questionnaire.

Learning Organizations in Higher Education

Instructions: Please respond by circling the number that most closely corresponds to how you feel about each statement.

	1 strongly disagree				7 strongly agree		
1. I often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.	1	2	3	4	5	6	7
2. There is widespread support and acceptance for the organization's vision statement.	1	2	3	4	5	6	7
3. I can often bring new ideas into the organization.	1	2	3	4	5	6	7
4. Failures are seldom constructively discussed in our organization.	1	2	3	4	5	6	7
5. Current organizational practice encourages employees to solve problems together before discussing it with a supervisor.	1	2	3	4	5	6	7
6. From my experience, people who are new to this organization are encouraged to question the way things are done.	1	2	3	4	5	6	7
7. Senior managers in this organization resist change and are afraid of new ideas.	1	2	3	4	5	6	7
8. Line managers in this organization encourage employees to experiment in order to improve work processes.	1	2	3	4	5	6	7
9. New work processes that may be useful to the organization as a whole are usually shared with all employees.	1	2	3	4	5	6	7
10. Innovative ideas that work are often rewarded by management.	1	2	3	4	5	6	7
11. Managers and employees in this organization share a common vision of what our work should accomplish.	1	2	3	4	5	6	7
12. In my experience, new ideas from staff are not treated seriously by management.	1	2	3	4	5	6	7
13. Managers in this organization frequently involve employees in important decisions.	1	2	3	4	5	6	7
14. We cannot usually form informal groups to solve organizational problems.	1	2	3	4	5	6	7
15. Managers in this organization can accept criticism without becoming overly defensive.	1	2	3	4	5	6	7

Learning Organizations in Higher Education

	1 strongly disagree				7 strongly agree		
16. We have a system that allows us to learn successful practices from other organizations.	1	2	3	4	5	6	7
17. Line managers in this organization often provide feedback that helps to identify potential problems and opportunities.	1	2	3	4	5	6	7
18. I do not understand how the vision of this organization is to be achieved.	1	2	3	4	5	6	7
19. We have opportunities for self-assessment with respect to goal attainment.	1	2	3	4	5	6	7
20. The organization's vision statement identifies values to which all employees must conform.	1	2	3	4	5	6	7
21. Most problem solving groups in this organization feature employees from a variety of functional areas or divisions.	1	2	3	4	5	6	7
22. There is very little overlap in work between different units in the organization.	1	2	3	4	5	6	7
23. Most of our work must adhere to formal rules and procedures.	1	2	3	4	5	6	7
24. In my opinion, this organization has too many levels of hierarchy.	1	2	3	4	5	6	7
25. We require approval in writing for the introduction of new work activities.	1	2	3	4	5	6	7
26. Our work is usually closely monitored and inspected by management.	1	2	3	4	5	6	7
27. Information and decision making must always go through proper channels.	1	2	3	4	5	6	7
28. Standard operating procedures have been established for almost every work situation.	1	2	3	4	5	6	7
29. I feel I am in a dead end job.	1	2	3	4	5	6	7
30. I feel isolated at work.	1	2	3	4	5	6	7
31. I am satisfied with my supervisor.	1	2	3	4	5	6	7
32. I do not feel as if I am an integral part of this organization.	1	2	3	4	5	6	7
33. I have opportunities to work on challenging assignments.	1	2	3	4	5	6	7

Learning Organizations in Higher Education

	1 strongly disagree					7 strongly agree	
34. My work makes full use of my skills and abilities.	1	2	3	4	5	6	7
35. I have opportunities to improve my knowledge, skills and abilities in order to undertake new work assignments.	1	2	3	4	5	6	7
36. I know that failure will have negative repercussions on my career.	1	2	3	4	5	6	7
37. My work group is supportive of the work I do.	1	2	3	4	5	6	7
38. Overall, I am satisfied with this job.	1	2	3	4	5	6	7
39. Employees in this organization are frequently provided with work related skill training.	1	2	3	4	5	6	7
40. The skill training I receive can be applied to improve my work immediately.	1	2	3	4	5	6	7
41. Employee training is emphasized equally at all levels in this organization.	1	2	3	4	5	6	7
42. Learning to increase my work skills and knowledge is not encouraged in this organization.	1	2	3	4	5	6	7
43. Training in this organization is done in work teams.	1	2	3	4	5	6	7
44. Training in this organization is not always relevant to my work.	1	2	3	4	5	6	7
45. I have opportunities to share my knowledge and skills learned from training with other employees.	1	2	3	4	5	6	7
46. Management skills such as leadership, coaching and teambuilding are emphasized as much as purely technical work skills in this organization.	1	2	3	4	5	6	7
47. Employees in this organization are required to continuously upgrade and increase their knowledge and educational level.	1	2	3	4	5	6	7

Learning Organizations in Higher Education

Instructions: This section asks for personal data related to your work experience. Please respond by filling in the appropriate blank.

1. How long have you worked for this organization? _____ (months) _____ (years)
2. How long have you been in your current work position? _____ (months) _____ (years)
3. Do you supervise others? _____ Yes _____ No
4. What is the name of the department in which you work?

5. Gender: Female _____ Male _____
6. Age Group: 20-30 _____ 31-40 _____ 41-50 _____ 51-60 _____ 60+ _____

Thank you for taking the time to fill out this survey. Your responses will be kept completely confidential and all information will be statistically aggregated before being put into a final report.

Learning Organizations in Higher Education

Appendix C Cover Letter to Contacts

«Title» «FirstName» «LastName»

«Company»

«Address1»

«City», «State» «PostalCode»

Dear «FirstName»:

Thank you for agreeing to be the “contact person” at «Company» for the distribution of my research survey. The survey will determine if there is a relationship between a college’s or university’s maturity as a learning organization and its accreditation process (AQIP vs. traditional). Your willingness to distribute and collect surveys on your campus will certainly add to the number of surveys returned and lessen the number of “non-respondents.”

The survey will require approximately 5-10 minutes of faculty time to complete. All responses to survey questions will remain anonymous; demographic information will be used solely as bases for data analysis.

This packet contains:

- Surveys (numbered 1-30 on the lower right corner of the back survey page) for faculty to complete (surveys 26-30 to be used if others are lost or “replacement” faculty are identified)
Would you please randomly select **25 full-time faculty members** from within your organization, while ensuring representation of faculty from all instructional colleges or divisions. It would be highly unlikely that a faculty member from each instructional program, department, or college would be surveyed. For example, Western Wisconsin Technical College has six instructional divisions, and the Human Services Division has 20 programs. Thus approximately only 5 faculty will be surveyed in this particular division.
- A survey distribution list (numbered 1-30)
Please record the name of the faculty member who receives each numbered survey. As the surveys are returned, this will allow you to account for those missing and facilitate follow up. Additional surveys 26-30 are included in case faculty misplaces the first survey. Should a faculty member choose not to complete the survey after receiving it, please use surveys 26-30 to distribute to newly identified faculty “replacements” or to use in case faculty misplace their original survey.
- A postage-paid envelope to return surveys (no need to return the cover letter attached to each survey)

A short letter of explanation is attached to the survey. Participants are asked to return the survey to you by **<date>**. Your assistance in follow-up with non-respondents after one week would be greatly appreciated. Please return all completed surveys to me (return mailers and postage are provided for you). Thank you for your cooperation and willingness to help. I will be sharing results of the survey with all college and university contacts. If you have any questions, please do not hesitate to contact me.

Very sincerely yours,

Diane Osterhaus Neefe
Continuous Improvement/Evaluation Specialist
Western Wisconsin Technical College
608-785-9151
neefed@western.tec.wi.us
Master’s Candidate - University of Wisconsin – Stout

Appendix D
Organizational Learning Survey

ORGANIZATIONAL LEARNING SURVEY

CONFIDENTIAL WHEN COMPLETED

The purpose of this survey is to gather information concerning organizational factors and management practices that may influence the learning capability of colleges and universities.

There are no “right” or “wrong” answers. Please reflect carefully and answer all questions as honestly as possible based upon **your** knowledge of the organization. Your response will be kept confidential and will be aggregated with other responses so individual respondents cannot be identified.

Thank you for taking the time to fill out this questionnaire. **Please return the survey to <contact> by <date>.**

Diane Osterhaus Neefe

Master’s Candidate UW-Stout

I understand that by returning this questionnaire, I am giving my informed consent as a participating volunteer in this study. I understand the potential benefits that might be realized from the study. I am aware information is being sought in a specific manner so that no identifiers are needed and so that confidentiality is guaranteed. I realize that I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected.

NOTE: Questions or concerns about participation in the research or subsequent complaints should be addressed first to the researcher or research advisor and second to Dr. Ted Knous, Chair, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research, 11 HH, UW-Stout, Menomonie, WI 54751, phone 715-232-1126

Learning Organizations in Higher Education

Instructions: Please respond by circling the number that most closely corresponds to how you feel about each statement.

	1 strongly disagree						7 strongly agree
1. The organization's vision statement identifies values to which all employees must conform.	1	2	3	4	5	6	7
2. There is widespread support and acceptance for the organization's vision statement.	1	2	3	4	5	6	7
3. Managers and employees in this organization share a common vision of what our work should accomplish.	1	2	3	4	5	6	7
4. We have opportunities for self-assessment with respect to goal attainment.	1	2	3	4	5	6	7
5. I can often bring new ideas into the organization.	1	2	3	4	5	6	7
6. From my experience, people who are new to this organization are encouraged to question the way things are done.	1	2	3	4	5	6	7
7. Innovative ideas that work are often rewarded by leadership.	1	2	3	4	5	6	7
8. In my experience, new ideas from staff are welcomed by management.	1	2	3	4	5	6	7
9. Current organizational practice encourages employees to solve problems together before discussing it with a supervisor.	1	2	3	4	5	6	7
10. Most problem solving groups in this organization feature employees from a variety of functional areas or divisions.	1	2	3	4	5	6	7
11. There is much overlap in work between different units in the organization.	1	2	3	4	5	6	7
12. Training in this organization is done in work teams.	1	2	3	4	5	6	7
13. I have opportunities to share my knowledge and skills learned from training with other employees.	1	2	3	4	5	6	7
14. I often have an opportunity to talk to other staff about successful programs or work activities in order to understand why they succeed.	1	2	3	4	5	6	7
15. New work processes that may be useful to the organization as a whole are usually shared with all employees.	1	2	3	4	5	6	7
16. We have a system that allows us to learn successful practices from other organizations.	1	2	3	4	5	6	7
17. We problem solve by not only identifying the solution, but by identifying what led to the problem and how it can be prevented.	1	2	3	4	5	6	7
18. Individuals and teams are encouraged to reflect on actions which led to successes or failures.	1	2	3	4	5	6	7
19. Employees are informed of how their role contributes to the overall organizational process.	1	2	3	4	5	6	7
20. Employees are encouraged to understand the perspectives of people in other positions.	1	2	3	4	5	6	7
21. Leaders in this organization are open to change and new ideas.	1	2	3	4	5	6	7
22. Leaders in this organization frequently involve employees in important decisions.	1	2	3	4	5	6	7
23. Leaders in this organization can accept criticism without becoming overly defensive.	1	2	3	4	5	6	7

Learning Organizations in Higher Education

		1					7
		strongly disagree					strongly agree
24. Leaders in this organization often provide feedback that helps to identify potential problems and opportunities.	1	2	3	4	5	6	7
25. Management skills such as leadership, coaching and team building are emphasized as much as purely technical work skills in this organization.	1	2	3	4	5	6	7
26. I have opportunities to work on challenging assignments.	1	2	3	4	5	6	7
27. My work makes full use of my skills and abilities.	1	2	3	4	5	6	7
28. I have opportunities to improve my knowledge, skills and abilities in order to undertake new work assignments.	1	2	3	4	5	6	7
29. The skill training I receive can be applied to improve my work immediately.	1	2	3	4	5	6	7
30. Employee training is emphasized equally at all levels in this organization.	1	2	3	4	5	6	7
31. Employees in this organization are required to continuously upgrade and increase their knowledge and educational level.	1	2	3	4	5	6	7

Instructions: This section asks for personal data related to your work experience. Please respond by checking the appropriate blank.

32. How long have you worked for this organization?

___₁ 0-5 years ___₂ 6-10 years ___₃ 11-15 years ___₄ 15-20 years

___₅ 20-25 years ___₆ 25-30 years ___₇ 30-35 years ___₈ 35+ years

33. How long have you been in your current work position?

___₁ 0-5 years ___₂ 6-10 years ___₃ 11-15 years ___₄ 15-20 years

___₅ 20-25 years ___₆ 25-30 years ___₇ 30-35 years ___₈ 35+ years

34. Age

___₁ <26 ___₂ 26-30 ___₃ 31-35 ___₄ 36-40

___₅ 41-45 ___₆ 46-50 ___₇ 51-55 ___₈ 56-60

___₉ 60-65 ___₁₀ 65+

35. Do you supervise other faculty in the organization? ___₁ Yes ___₂ No

36. Gender ___ Male ₁ ___ Female ₂

Thank you for taking the time to fill out this survey. Your responses will be kept completely confidential and all information will be statistically aggregated before being put into a final report.

Survey number _____

Learning Organizations in Higher Education

Appendix E
Learning Organization Survey Distribution List
<College or University Name>

<u>Faculty name</u>	<u>Returned</u>
1. _____	Yes ___
2. _____	Yes ___
3. _____	Yes ___
4. _____	Yes ___
5. _____	Yes ___
6. _____	Yes ___
7. _____	Yes ___
8. _____	Yes ___
9. _____	Yes ___
10. _____	Yes ___
11. _____	Yes ___
12. _____	Yes ___
13. _____	Yes ___
14. _____	Yes ___
15. _____	Yes ___
16. _____	Yes ___
17. _____	Yes ___
18. _____	Yes ___
19. _____	Yes ___
20. _____	Yes ___
21. _____	Yes ___
22. _____	Yes ___
23. _____	Yes ___
24. _____	Yes ___
25. _____	Yes ___
Extra or lost surveys	
26. _____	Yes ___
27. _____	Yes ___
28. _____	Yes ___
29. _____	Yes ___
30. _____	Yes ___

Diane Osterhaus Neefe
Western Wisconsin Technical College
608-785-9151
neefed@western.tec.wi.us