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Measuring Employee Perceptions of a Learning Organization during Strategic Change

Kasey Uran-Linde
kasey.linde@outlook.com

Measuring Employee Perceptions of a Learning Organization During Strategic Change

by

Kasey R. Uran-Linde

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Dissertation Committee:
Steven McCullar
Michael Mills
Judith Siminoe
Kathi Tunheim

Abstract

The landscape of higher education is shifting yet many institutions fail to adequately adapt to the changes. This divide has put many institutions of higher education in a precarious situation and, for some, at risk of closing operations all together. With all the research indicating the benefits of a post-secondary degree, it is vital that institutions become more nimble to adapt to the changing environment. Using the framework of a Learning Organization and the Dimensions of a Learning Organization Questionnaire, this case study evaluates how one institution aligns with learning organization characteristics that can help the institution better adapt to their environment. Understanding the campus climate and its relationship with learning gives insight on how to proactively address the institution's next steps.

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Chapter 1: Introduction

From Harvard's establishment and beyond, American higher education has needed to adapt to the changes in market demands, student populations, funding sources, and a variety of other environmental fluctuations (Marsick & Watkins, 1999; Örtenblad & Koris, 2013; Voolaid & Ehrlich, 2017). Pressure from governing bodies, accreditation agencies, and internal and external constituents influences the way institutions strategically plan and make decisions. Transitions in leadership, shifts in institutional goals, or a fluctuating composition of the student body are all examples of internal change. These changes influence the effectiveness and operation of an institution (Bryson, 2011). Regardless of the source or organization, change is inevitable. As a notoriously slow adapter, higher education is more vulnerable and susceptible to the negative consequences associated with change (Baráth, 2015; Hoover & Harder, 2015; Senge, 2000; Voolaid & Ehrlich, 2017). The future success of higher education lies in its ability to evolve from a reactive entity to one that is nimble, strategic, and proactive in its approach to organizational change.

The literature on organizational change is vast and the theories and models developed to support change initiatives are seemingly endless. Research in the fields of organizational change, human resource development, and organizational behavior aims to identify empirically substantiated methods to promote sustainable change (Bui & Baruch, 2011; Marsick, 2013). The complexity of the topic is due to the multiple forces at work both structurally and relationally. Organizational change incorporates aspects of leadership, management, structures, individual motivation, teamwork, and strategy (Dill, 1999; White & Weathersby, 2005). A trait associated

with organizational change that has gained popularity in recent decades is that of learning (Örtenblad & Koris, 2013; Prelipcean & Bejinaru, 2016; Tinto, 1997).

Since the 1960s, organizational learning theories have benefited industries by improving their ability to learn and promote sustainable change within an organization (Mirvis, 1996). Through the work of Bateson (1973), Argyris and Schön (1978), Revans (1982), Senge (1990) and Watkins and Marsick (1993b, 1996) an understanding of learning organization was developed. Although discussion continues regarding whom acquires knowledge and how learning is measured, a consensus among scholars' remains: implementing a culture of continuous learning can positively influence change within organizations (Huber, 1991; Senge, 2000).

Purpose of the Study

This study sought to collect and evaluate employee perceptions of learning organization dimensions and behaviors present at their institution. Studies indicate that a greater perception of learning organization behaviors can positively influence job performance (Joo, 2012), work-life balance (Bui & Baruch, 2011; Prelipcean & Bejinaru, 2016), and job satisfaction (Goh, 2001). Gaining a deeper understanding of the college's climate provides insight for leadership to better support employees through programs and services and increase their effectiveness of implementing sustainable change across campus.

Furthermore, understanding an organization's ability to change determines its probability of staying relevant and competitive in the changing environment (Baráth, 2015; Bui & Baruch, 2010; Prelipcean & Bejinaru, 2016; Senge, 2000; Voolaid & Ehrlich, 2017). Employee

perceptions of learning and willingness to adapt will determine how prepared institutions are to face the upcoming challenges facing higher education.

The institution selected for this study was in the process of implementing a strategic plan that included new bold initiatives requiring substantial modifications to the college's structure and day-to-day operations. To support the upcoming changes, leadership decided to invest and empower the human resources division to better support the employees and culture needed to implement sustainable change. The institution followed many traditional change theory tactics such as engaging employees at all levels and promoting transparent communication to prepare their organization for change (Bryson, 2011).

This study desired to investigate how the culture of the college might influence the effectiveness of the strategic plan implementation process. To do so, employee perceptions of current learning behaviors present on campus were measured using a quantitative survey. With this information, leaders will understand if the college aligns with a learning organization and potentially identify groups of employees that are resisting or not likely to comply with change. Human resource professionals benefit from understanding employee perceptions as it relates to their work of hiring, training, assessing, and rewarding employees.

Implementing change within an organization is a costly endeavor, specifically when associated with developing and implementing a strategic plan. Before making a substantial investment, leaders often monitor or survey employees to gauge whether the initiatives will be supported (Bryson, 2011; Jacobs, Van Witteloostuijn, & Criste-Zeyse, 2013). Analyzing the current culture and presence of learning behaviors provides valuable insight and help leaders in their decision-making process (Ellis, Margalit, & Segev, 2012). Without this information,

disconnects can form between leaders and employees, which often increases the probability of failed change initiatives (Kotter, 1995). These unsuccessful attempts at change have consequences and, in some cases, can be threatening to an organization's livelihood (Lederman, 2017). Immediate consequences are typically felt from the loss of resources (i.e. time, money, personnel) but some of the most costly repercussions stem from missed opportunities for financial growth, diversification of services, and cost-saving benefits (Bryson, 2011). Resisting or delaying change can be damaging to an organization as well as the employees, customers, and communities whom rely on its success.

Statement of the Problem

Institutions of higher education are facing a choice: proactively navigate the changing environment or passively hope current practices are sufficient for the time being. The only certainty for institutions choosing the latter is that at some point, all practices become antiquated. This dichotomy of proactive and reactive responses is not necessarily new to higher education. In times of financial crisis, colleges and universities scramble to find ways to reduce costs, increase aid to student unable to pay, and develop plans to conserve resources (McClure, 2017). This was especially true in the latest Great Recession.

Each year *The Chronicle of Higher Education* compiles a list of institutions that, for better or worse, played an influential role in higher education. In 2014 that list was dubbed the "hired guns" because it contained institutions that had contracted the use of consulting firms to aid in the turnaround following the recession (*The Chronicle of Higher Education*, 2014). These firms helped to "develop strategies to control costs, maximize productivity and ultimately enact reform that conveys effectiveness and efficiency to constituents" (McClure, 2017, pp. 575-576).

Consulting firms became known for their ‘playbook’ of ways institutions could improve their situation. Strategies included automating human resource processes, reviewing or consolidating vendor services, centralizing technology needs, and reducing energy and space usage (McClure, 2017). The recommendations were simple and relatively inexpensive to execute, but the cost to acquire these firms and employ their services was substantial. Many stakeholders and government officials took notice of the high price tags and shared their opposition of the excessive spending by many public institutions with newspapers and other media sources (McClure, 2017). The institutions argued that change within higher education is complex and an outside voice was needed to motivate the campus and its employees to commit to changing.

Higher education’s inability to change continues to attract criticism and consequences (Lederman, 2017; McClure, 2017; Woodhouse, 2015). State and federal governments have expressed their displeasure with the spending habits of public institutions, exemplified in the hiring of consultants, and the expectation for accountability continues to rise (McClure, 2017). Stakeholders have become more concerned with academic quality, student retention, graduation rates, learning outcomes, and student debt loads (McClure, 2017). Higher education struggles to adapt to the increased demands for transparency and accountability. This inability has left some institutions in the same, if not worse, situation they found themselves in during the Great Recession (Lederman, 2017). Institutional or individual reluctance to adapt with the changing environment can have serious, sometimes terminal, repercussions.

The Education Department’s National Center for Education Statistics reported that 404 fewer colleges and universities were eligible to award financial aid in 2016-17 than in the prior

academic year (Ginder, Kelly-Reid, & Mann, 2017). Although many of those institutions were able to merge with other organizations, closures of college and universities in the United States are becoming exceedingly common. In 2015, Moody's Investors Service made a prediction that closures of colleges and universities in America would triple in the upcoming years (Woodhouse, 2015). This prediction should concern both employees and leaders and encourage institutions to become aware of the ways in which it resists change.

Not every institution that refuses or resists change is destined for closure but the consequences of being blind to these behaviors are becoming more severe. Colleges and universities must begin incorporating traits, such as found in learning organizations, which will aid in successful change initiatives (Baráth, 2015; Boyce, 2003; Senge, 2000). Effective and practical strategies need to be implemented to assist institutions in carrying out their mission of educating students. Institutions that can learn how to adapt and implement change are more able to meet the needs of their students, ultimately allowing them to reap the benefits of a college education (Tinto, 1997).

Research continues to build the case around the importance of earning a bachelor's degree. College graduates are twice as likely to earn more money, elevate their social status, increase the job market value, and live healthier lives compared to their peers (Chan, 2016; Hout, 2012; Lawrence, 2017; Webber, 2016). Communities benefit from college-educated citizens as they exhibit lower crime rates, increased charitable giving, and account for more than half of the annual economic value in the United States. (Carnevale & Rose, 2015; Zaback, Carlson & Crellin, 2012).

Colleges and universities play a vital role in the economic and social stability of the United States. Since 2010, 97% of good jobs created have been filled with college-educated employees (Carnevale, Hanson, & Gulish, 2015). Although market demands continue to increase for skilled workers with a college degree, institutions are closing or merging at a faster rate than before. The simple logic of supply and demand exposes an issue with this situation; institutions should not be closing when the demand for college degrees continues to rise. More research is needed to investigate why some institutions are unable to capitalize on the growing market.

An institution's ability to embrace change by continuing to improve processes and services will distinguish themselves from other institutions (Voolaid & Ehrlich, 2017). Peter Senge is one of the leading scholars in systems science and founder of the Society of Organizational Learning. During an interview, Senge predicted, "an organization's ability to learn may make the difference between its thriving or perishing in the years ahead" (O'Neil, 1995, p. 20). Connecting Senge's theory with current statistics on mergers and closures in higher education could support the notion that institutions need to commit to continuous learning and adaptation.

Specifically, in higher education change can be a lengthy, tedious, and controversial process (Bryson, 2011). Shared governance, bargaining units, and institutional traditions are all environmental hurdles that can prevent change (Hoover & Harder, 2015). Similarly, employees may decide to build coalitions in order to resist change, which often results in failed initiatives. It is imperative that leaders learn about their campus culture and employees' perceptions before introducing change (Dasborough, Lamb, & Suseno, 2015). Contextual and background

knowledge will better prepare institutions to respond favorably, and possibly even thrive, during times of change.

Even if an institution is not facing the possibility of closure, leaders should be continually developing and implementing strategies to become a more effective and nimble organization. It is important to identify what prevents organizational change. Failure to identify these areas or individuals will not only cause an institution to become stagnant, it will limit its ability to provide a quality education for their students.

Research Description

Colleges and universities failing to adapt to the changing landscape often turn to budget cuts, tuition increases, retrenchment, furloughs, and mergers, to solve their financial problems (Letizia, 2017; McClure, 2017; Woodhouse, 2015). Each situation is unique, but the majority of institutions resort to making reactive decisions due to time, planning, and resources. Ideally, institutions could maintain a healthier position if they were able to move proactively to prevent or avoid their respective challenges. Many colleges and universities are guilty of only investing enough resources to allude the immediate danger but not anything beyond (Bryson, 2011). Organizational learning theories address the shortsightedness and work to embed continuous learning characteristics within the institution by offering simple and tactical protocols (Boyce, 2003). These theories provide a road map and specific behaviors of what an organization should look like when it is truly ready for change.

This study focused on one institution for data collection. Narrowing the scope of the research allowed for prescriptive and consultative outcomes, which also hold significance for its religiously affiliated, private liberal arts peer institutions. This peer group often shares similar

organizational structures, institutional visions, and environmental hurdles meaning the findings from this study may align closely to the status of other institutions. A practitioner-based focus helped to guide the research and provide specific and strategic conclusions for leaders to use in future planning and decision-making processes.

A practitioner-focused study is fitting for the culminating research of an education doctorate. As defined by the Carnegie Project on the Education Doctorate, the Ed. D. should "transform current practitioners into 'scholarly practitioners'…use practical research and applied theories as tools for change…disseminate [their] work in multiple ways, and have an obligation to resolve problems of practice by collaborating with key stakeholders" (Perry, 2012, p. 43). Through collaboration with college leadership, incorporation of a theoretically sound framework, and strong data analysis, the research design fulfills all of the desired outcomes of an educational doctorate.

The institution selected for this study was preparing for change in two specific ways. The first of which was through the implementation of a strategic plan and the second was by making a significant investment in the human resources division to better support, train, and reward employees. The beginning of this study evaluated if employees perceived the college as a learning organization while the latter compared learning organization dimensions and behaviors with employee responses and demographics.

The employees of the college were surveyed electronically and provided the data needed to answer the research questions presented below. Four independent variables were used to help segment the data during analysis. The variables included gender, position within the college, length of employment at the college, and highest level of education attained. These

demographics allow for comprehensive analysis, practical application, and adequate anonymity for participants. These variables are commonly used in similar studies of learning organizations (Benjamin, 2009; Hunter-Johnson, 2012; Krohn, 2010; Rush, 2011).

For this institution specifically, a greater emphasis was placed on the relationship between learning organization perceptions and gender. In 2014, the college informally collected data from their 26 religiously affiliated peer institutions across the country and found they led all institutions in the number of females in leadership roles. They defined leadership as the role of president, provost(s), deans, and department chairs. At the time, 20 of the 24 department chairs were female in addition to other leadership roles. It is because of this distinction that the gender variable will be given more attention in the literature review and analysis.

The college selected for this research was established in the mid-1800s with strong religious values that are still present around campus, in the curriculum and exemplified by the large chapel that overlooks campus. This residential college is home to approximately 2,100 baccalaureate students and, in recent years, ranks in the Top 100 National Private Liberal Arts schools in the nation by *U.S. and World News Report*. As a private institution with a relatively small endowment, the college is dependent on tuition revenue to fund the annual operating budget, capital projects, and other financial commitments.

Selecting a private institution as the sample will provide a unique vantage point to this study. According to research conducted by Patnaik (2010) and Farnham (1999), private institutions have reported higher scores of learning organization dimensions and more success in their financial performance compared to their public counterparts. Similarly, this private institution is relatively small which has been attributed to fostering an environment that is more

conducive to developing a shared vision (Prelipcean & Bejinaru, 2016). As previously mentioned, the findings of this study have implications for peer institutions on how to address successful change and learning behaviors on campus.

After a leadership transition, a new president of the college was named in 2014. This president had governance experience at the college prior to being appointed but also joined a growing group of presidents whose last professional role was outside of higher education. The American Council on Education evaluates the employment histories of current presidents and continues to find a rise in non-academic professionals serving in top leadership roles. In 2016, 18% of presidents at private institutions held a role outside of higher education prior to ascending into leadership (Gagliardi, Espinosa, Turk, & Taylor, 2017). This figure is three percentage points higher than the collective average indicating that 15% of all college and university presidents come from a non-academic background (Gagliardi et al., 2017).

This is a controversial topic and has many voicing their own opinion whether an academic background is necessary to successfully lead an institution or not. While obvious shared experiences are gained from working in academia, John R. Thelin, a leading historian of American higher education, clarified that the role and responsibilities of a president in the current times are dramatically different and distinctive from tasks of a professor (Jaschik, 2015).

For an institution undergoing substantial change, it is possible that skills and experiences from private industry have actually been a benefit. The president's corporate background played an influential role in the organizational and strategic development of the college. In regard to organizational learning, the president was also intimately familiar with Peter Senge's (1990) ideas on continuous learning and the potential benefits within an organization.

Following the president's first year, the campus began a strategic planning process. A consultant was brought in to administer and assist in the process. Motivation for creating a strategic plan came from the threats facing the institution, such as decreased enrollment and the desire to build upon the current strengths of the college. John Bryson (2011) summarizes the process of strategically planning by saying:

> Organizations that want to survive, prosper, and do good and important work must respond to the challenges the world presents. Their response may be to do what they have always done, only better; but they may also need to shift their focus and strategies. (p. 5)

Strategic planning requires a thorough assessment of the institution and honest self-reflections by individual employees (Letizia, 2017). Many factors such as shared governance, establishing a collective vision, and resource allocation are involved in the planning process, but the ultimate goal is to define a detailed road map on how the organization can change to become more effective and successful in its work (Bryson, 2011). Coincidentally, these outcomes closely align with the traits of organizational learning.

For nearly a century, organizational learning has been applied to business and private industry in order to operate more efficiently and remain nimble in times of change (Levitt & March, 1988; Mirvis, 1996). It was not until the late 1900s that organizational learning gained wide spread traction in the educational sector even though the industry is based upon the dissemination and acquisition of knowledge (Boyce, 2003).

Organizational learning focuses on the collective experiences and development of skills of an entire group (Dee & Leisyte, 2017; Fiol & Lyles, 1985; Mirvis, 1996). The theoretical

framework that formed the backbone of this research shares many of the same characteristics of organizational learning but possesses a few distinct features specific to the needs of this study. The framework is referred to in the literature as a learning organization.

Learning organizations assume, just as in organizational learning, that organizations and its individuals are capable of learning (Örtenblad, 2002a/b; Tsang, 1997, Watkins & Marsick, 1993b). Two factors largely separate learning organizations from the organizational learning framework. The first is that learning organizations must exhibit continuous learning practices and it occurs on multiple levels within the organization (Tsang, 1997; Yang, Watkins & Marsick, 2003). Secondly, learning organizations take a much more applied stance to their models compared to that of organizational learning theories. Learning organizations are committed to "evaluating ideas according to their applicability" and research the "link between generating change and studying the process and nature of that change" (Easterby-Smith, 1997, p. 1103).

Senge (1990) popularized learning organizations when he wrote a *New York Times* Best Seller focusing on the art and practice of a learning organization. In the text, Senge describes his version of the model and the importance for businesses to develop five attributes (personal mastery, team learning, shared values, mental models, and systems thinking) to create a more effective and efficient work environment (Senge, 1990).

Senge's developments within the learning organization community was built upon the foundational work of levels of learning, single- and double-loop learning, action learning, learning systems, and the learning company (Argyris & Schön, 1978; Bateson, 1973; Dixon, 1994; Pedler, Burgoyne, & Boydell, 1991; Revans, 1982). Each model encompasses varying strengths and weaknesses in measuring the qualities and characteristics of a learning organization

but the perspective that best fits this study is the integrative model developed by Watkins and Marsick (1993b, 1996).

In their early research, Watkins and Marsick (1996) defined a learning organization as "one that learns continuously and transforms itself … learning is a continuous, strategically use process–integrated with and running parallel to work" (p. 4). As they continued to evaluate the empirical research and practical implications, the authors decided to include that learning organizations are individuals "aligned around a common vision. They sense and interpret their changing environment. They generate new knowledge which they use, in turn, to create innovative products and services to meet customer needs" (Marsick & Watkins, 1999, p. 10).

This practitioner-based explanation follows the two guiding factors of the framework: people and structure. Watkins and Marsick (1993b, 1996) viewed these entities as interactive and dynamic components of an organization. To assess how people and structure influence an organization's ability to learn, Watkins and Marsick defined seven dimensions to measure the relationship and uniqueness of each aspect. The dimensions include continuous learning, inquiry and dialogue, team learning, empowerment, embedded systems, systems connection, and provide leadership. Each of the seven dimensions will be discussed in detail later in Chapter 2.

Applying Watkins and Marsick's (1993b, 1996) framework of learning organizations provided several advantages and incorporated aspects that other frameworks left out (Yang et al., 2004). The aforementioned definition of learning organizations by Marsick and Watkins (1999) provides a clear explanation of what constitutes a learning organization, which in turn, makes it possible to measure and asses. This clarity is not as pronounced in the definitions produced by

Senge (1990) and Pedler et al., (1991). The comprehensive definition of the dimensions is one of the unique attributes of this framework.

Watkins and Marsick's (199b3, 1996) model specifically focuses on the dimensions at the individual, team, and organizational level which is also rare among the available frameworks and assessment tools developed for learning organizations (Redding, 1997). The majority of learning organization theories tie closely to an organizational learning model but without accounting for variety of learning levels within an organization. Although relatively flat and decentralized in nature, higher education possesses levels of learning and the differences should be taken into account when thinking about organizational change. Learning that occurs within a specific department may be interpreted differently by a single individual and vice versa.

Another strength of the Marsick and Watkin's (1999) model is the seven dimensions and 43 learning behaviors used to measure, analyze, and create future strategies for the organization. The seven dimensions, although similar to other models, align best with the proactive nature in which strategic planning requires. These practical implications allow leaders to develop innovative solutions based on empirical evidence. In the context of this research, leaders at the college had an opportunity to turn data into action and create change strategies that have a greater probability for success.

Örtenblad (2002a) conducted a comprehensive review of learning organization literature in attempt to synthesize existing knowledge and compare models and theories to one another. The literature was condensed into four working attributes used to describe learning organization. The attributes include old organizational learning, learning at work, learning climate, and the learning structure perspective. Of the twelve theories reviewed, the approach developed by

Watkins and Marsick (1993b, 1996) is the only one that encompasses all four perspectives (Örtenblad, 2002a). For these reasons, applying Watkins and Marsick's (1993a/b, 1996) framework of learning organizations has provided the greatest advantage in defining, measuring and evaluating the dimensions of learning organization as it relates to the campus culture.

Based upon the learning organization framework, an instrument was developed by Watkins and Marsick (1997) to measure and analyze learning organization dimensions and behaviors. The instrument has been validated many times, which also made it the ideal choice for this study (Basim, Sesen, & Korkmazyurek, 2007; Hernandez & Watkins, 2003; Kim, Egan, & Tolson, 2015; Sharifirad, 2011; Song, Joo, & Chermack, 2009; Yang et al., 2004). The Dimensions of a Learning Organization Questionnaire (DLOQ) is a strong instrument and is a valuable asset to this research. A detailed history and description of the DLOQ is included within the methodology section.

Research Questions

Through the use of the DLOQ and quantitative analysis, the study answered three specific research questions regarding employees' perception of learning organization dimension and behaviors at the college. The questions include:

1. To what extent do employees perceive the college to be a learning organization?
2. Which, if any, demographic variable has the greatest influence on an individual's perception of learning organization behaviors?
3. How are learning organization dimensions perceived by employees?

The research questions were developed with a practitioner's viewpoint in mind, which is a strength of the Watkins and Marsick (1993b, 1996) model. The four independent variables of

gender, position, educational attainment, and length of employment assisted in answering the research questions and identifying correlations and variance.

The desired outcome was to measure learning organization dimensions within the college, identify populations of employees that do not perceive learning organization behaviors, and understand the obstacles that may prevent change. This information can aid college leadership and human resource professionals prepare for successful and sustainable change (Bak, 2012; Kezar, 2005; Tinto, 1997; Watkins & Marsick, 1993a/b, 1996).

Definition of Terms

Due to the variation in definitions and possible errors in inference, select terms have been defined for the use of this study. These terms are used throughout the literature review, methodology and analysis and will remain consistent in their application.

- Continuous Learning (CL)–"Learning is designed into work so that people can learn on the job; opportunities are provided for ongoing education and growth" (Watkins & Marsick, 2003, p. 139).
- Embedded Systems (ES)–"People are helped to see the effect of their work on the entire enterprise; people scan the environment and use information to adjust work practices; the organization is linked to its communities" (Watkins & Marsick, 2003, p. 139).
- Empowerment (EP)–"People are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do" (Watkins & Marsick, 2003, p. 139).

- Inquiry and Dialogue (DI)–"People gain productive reasoning skills to express their views and the capacity to listen and inquire into the views of others; the culture is changes to support questioning, feedback, and experimentation" (Watkins & Marsick, 2003, p. 139).
- Learning Organization–"A learning organization is one that learns continuously and transforms itself … Learning is a continuous, strategically used process–integrated with and running parallel to work" (Watkins & Marsick, 1997, p. 2).
- Provide Leadership (PL)–"Leaders model, champion, and support learning; leadership uses learning strategically for business results" (Watkins & Marsick, 2003, p. 139).
- Systems Connection (SC)–"Both high- and low-technology systems to share learning are created and integrated with work; access is provided; systems are maintained" (Watkins & Marsick, 2003, p. 139).
- Team Learning (TL)–"Work is designed to use groups to access different modes of thinking; groups are expected to learn together and work together; collaboration is valued by the culture and rewarded" (Watkins & Marsick, 2003, p. 139).

Summary

The landscape of higher education continues to shift making it difficult, if not impossible, for institutions to continue operating in the same manner while remaining relevant (Voolaid & Ehrlich, 2017). Fluctuations in market demands, funding sources, and student populations, as well as other external and internal pressures, make change within colleges and universities necessary. The United States has put a social and economic value on a college education and the

demand for an educated workforce continues to rise. Unfortunately, the closures and mergers of the institutions providing that skilled labor has also risen over the past decade. For too long, higher education has put off making necessary changes that would better meet consumers' needs, incorporate technology, and stay competitive in the market (Baráth, 2015; Bui & Baruch, 2010; Prelipcean & Bejinaru, 2016; Senge, 2000; Voolaid & Ehrlich, 2017). The consequences of colleges and universities remaining stagnant will result in displaced employees and students as and should be addressed by leaders within higher education (Woodhouse, 2015).

Colleges and universities must take a proactive stance on change. The practice of continual adaptation and learning will promote greater acceptance and success of change initiatives. Regardless if the initiative aims to improve a single department or the entire campus, institutions will benefit from integrating strategies, specifically learning organization dimensions that help them persist and thrive in times of transition.

Chapter 2: Literature Review

The presence of change, whether organic or planned, will never leave the fabric of an organization. In fact, some organizations intentionally seek out change for a variety of reasons. Change can be implemented to increase production, pilot new skills or products, or improve organizational effectiveness. Other types of change can be a reactionary response to a stimulus such as market demand (Chaffee, 1984). Organizations invest valuable resources in the development and implementation of change initiatives with the understanding that it is a risky venture and success rates are not promising (Bryson, 2011).

Scholars believe the origination of organizational change theory, or development, stems from the research of the Hawthorne Western Electric Company factory in 1924. It was here that working conditions and its effect on production rates were recorded and used to make decisions on how to improve the factory (Alejandro, 2016). From that time on, other companies used similar studies to examine their organization in effort to identify possible improvements.

Organizational Change

The literature covering organizational change is broad and extensive. For the purpose of this study, only a brief review of the foundational aspects is included as it relates to learning organizations. Kurt Lewin's (1947) classic model of change – unfreeze, change, refreeze – remains a pillar in the field of organizational change. Lewin's model was designed with the assumption that organizations become rigid and stagnant in their ways over time. This routine or lack of flexibility within an organization requires an un-freezing of learned norms and actions before any change can be implemented. Similarly, once change has been introduced into the organization it must be embedded into the culture, or frozen, to benefit from sustainable results.

Notable developments in organizational learning theories include Stinchcombe's (1965) observation of organizational imprinting. Stemming from literature in developmental psychology, organizations tend to retain characteristics throughout their lifespan (Alejandro, 2016; Stinchcombe, 1965). Imprinting has some organizational benefit. Organizations typically remain loyal to the original mission and hold on to traditions that create meaning and shared experiences. Conversely, imprinting severely limits an organization's ability to adapt or change because the resistance towards altering traditional norms is embedded within the organization (Stinchcombe, 1965).

There are times when a certain external stimulus is needed to motivate organizations to break free from limiting views and negative imprinting. Bateson (1972) described that stimulus as being a radical change, also known in the literature as an episodic change. Radical or episodic change is often the response to an "environmental jolt" from a stimulus outside of the organization (Meyer, 1982; Sine & David, 2003). These jolts may be dramatic shifts in the marketplace, natural disasters, political or economic instability, or a severe change in customer demand (Greiner, 1972). External environmental jolts are often the stimulus needed to force an organization to assess its need for change.

Escalation of commitment is a term that arose from Staw's (1976) simulation where he found that participants, despite negative reinforcement/outcomes, continued to follow or commit to their initial thinking. Similar results have been duplicated across several academic disciplines (Moon, 2001; Zardkoohi, 2004) and reinforce the principles of imaging set forth by Stinchcombe (1965). Hannan and Freeman (1977) offer their research on structural inertia as another way organizations can leverage change in a stagnant environment. Many organizations battle "strong

inertial pressures on structure arising from both internal arrangements (i.e., internal politics) and from the environment (i.e., public legitimation of organizational activity)" (Hannan & Freeman, 1977, p. 957). Political coalitions, bureaucracy, barriers to entry, and competitive pressures are a few examples of inertial forces that can influence organizational change (Bárath, 2015; Bui & Baruch, 2011).

An example of organizational change within private industry is the practice of mergers and acquisitions (M&A) (Brakman, Garretsen, Van Marrewijk, & Van Witteloostuijn, 2013). Research on the success rates of mergers and acquisitions found that nearly 30 percent of M&A deals fail upon conception and more than 70% of M&A partners never successfully complete the process (Bauer & Matzler, 2014; Brakman et al., 2013). Even change initiatives outside of M&A experience similar results with failure rates reaching as high as two-thirds (Beer & Nohria, 2000; Burnes, 2004).

High investment costs and low success rates make organizational change a risky and complex process. Organizational change theorists strive to add quality, scholarly work to the field while offering practical solutions and insight for practitioners (Pettigrew, Woodman, & Cameron, 2001; Tsang, 1997). With regards to research, evaluating change within an organization can be inconsistent and difficult to quantify. Scholars evaluating change can choose to measure the perceptions of those involved in the change, the overall wellbeing of an organization, the effects on the talent pool, or the opportunity costs with regards to the speed of implementation (Jacobs et al., 2013). Each provide a unique, yet incompletely, look into organizational learning.

The variety of assessment strategies available makes it difficult to identify which strategy best fits each respective situation. Even the generic models that are often praised for being universally applicable can be harmful to an organization. Incorrectly applying change theories can lead to higher rates of failure and build greater resistance against future change initiatives (Sorge and Van Witteloostuijn, 2004). For these reasons, it is vital that change theories are closely reviewed and judiciously selected before implementing change.

Traditionally, psychology, sociology, and economics made up the disciplines in which organizational change theories have been applied (Alejandra, 2016; Easterby-Smith, 1997; Jacobs et al., 2013). Selecting the correct theory became increasingly difficult once a continued expansion into business, education, and dozens of other academic fields caused a fragmentation and distortion of the theories and models (Jacobs et al., 2013). This broadening view of organizational change has identified contradictions between theories but also solidified the similarities between the applications of organizational change across disciplines.

One of the shared aspects found within theories is the hierarchical structure that makes up an organization. Those levels include the micro (individuals), meso (groups and organizations), and macro (organizational environment and populations of organizations) (Jacobs et al., 2013). Incorporating the use of levels in research allows for more accurate analysis and comparison between groups. Additionally, the depth of research can be much greater if only one level is identified as the focus.

Studies conducted on the micro-populations tend to focus on two themes: commitment and communication (Rogiest, Segers, & Van Witteloostuijn, 2015). Porter, Steers, Mowday, and Boulian (1974) coined the term organizational commitment to describe the strength of an

individual's participation and buy-in to an organization's initiative. Organizational commitment can be divided into concepts of behavior and attitude and exhibit each to a varying degree based on their commitment level. Highly committed employees is one of the top predictors for successful organizational change (Choi, 2011; Hoover & Harder, 2015; Iverson, 1996; Nordin, 2011; Rogiest et al., 2015).

Research on organizational climate builds upon the discoveries made regarding micro-population commitment. Verbeke, Volgering and Hessels (1998) described "organizational climate [as] a reflection of the way people perceive and come to describe the characteristics of their environment" (p. 320). Seminal work by Litwin and Stringer (1968) highlighted the importance of establishing a strong organizational climate, which can increase commitment at the micro level, to better prepare for and adapt to organizational change.

Communication is also critical to the forward progression of an organization. When information is broadly and openly shared, employees are likely to participate and commit to the process as a higher level (Miller, Johnson, & Grau, 1994). Conversely, a lack of transparency, poor communication, and limited access to information can lead to lower levels of participation and commitment. Increased organizational insecurity has been linked to low participation and commitment levels and pose a threat to organizational wellbeing. Employee insecurity can lead to a decrease in loyalty, morale, and motivation, which drastically reduces the probability of implementing successful and sustainable change (Miller et al., 1994).

Organizational change in higher education. Change within any type of organization is complex but it was not until the late-twentieth century that colleges and universities became a focus of organizational change research (Boyce, 2003). Ellen Earle Chaffee, former senior

associate of the Organizational Studies Program with the National Center for Higher Education Management Systems, gathered much of the early research on organizational change within higher education. At that time, organizational change, or known at that time as strategic management, was thought to stem from two distinct models, the adaptive and interpretive models (Chaffee, 1984).

The adaptive model assumes an organization makes changes to align with market demands or increase internal effectiveness. Following the adaptive model guidelines, institutions were advised to "conduct market research, monitor trends in their environment, increase their flexibility (hiring part-time faculty, limiting tenure awards, relaxing regulations), and update their program offerings (Chaffee, 1984, p. 213).

The interpretive model takes the stance that organizations are comprised of self-interested individuals where the use of communication, both verbal and non-verbal, plays a vital role of uniting the group (Bak, 2012; Chaffee, 1984; Senge, 2000). The fundamental question in an interpretive model organization is, why are we together? (Chaffee, 1984). Academic freedom within curricula and sponsored research are examples of the individualism that permeates the interpretive model (Bak, 2012).

Within the last few decades, scholars have used foundational business theories to develop models specific to higher education (Velazquez, Mungia, & Sanchez, 2005; Senge, 2000). Elona Hoover and Marie Harder (2015) employed a meta-ethnography study to synthesize a variety of organizational change models in higher education that aimed to understand and promote university sustainability. Their findings highlight crosscutting themes found in the majority of change models.

Those themes include collaboration, organizational culture(s), conflict and competition, committed individuals, individual knowledge, and personal characteristics. Watkins and Marsick (1993b) had a similar outlook on why change within higher education takes place and why it seems to be occurring at a faster rate in recent times. The authors conclude Total Quality initiatives, changes in technology, greater demand for service orientation, prioritizing time management and ROI, and the drastic increase in competition are the largest factors influencing change within American colleges and universities (Örtenblad & Koris, 2013).

Although organizational change theories often view the organization as a whole unit, some research has been conducted to focus on how change affects individuals and how to best implement sustainable change on the micro-level (Allen, 2003; Hoover & Harder, 2015; Rogiest et al., 2015). In a study of Australian university, researchers used a phenomenological lens to interview employees of an institution going through a merger (Dasborough et al., 2015). The researchers conducted interviews with employees to collect their perceptions of the process. Following the interviews, researchers grouped employees into one of three categories based on their responses.

The categories were defined as: (1) understanding change is an opportunity to look forward to, (2) understanding change is a potential threat that needs to be carefully managed, and (3) understanding that change is inevitable (Dasborough et al., 2015). Participants engaged in a follow-up interview six months after the merge was complete. At that time, all but one individual with the understanding that change is a potential threat had left the university. Similarly, the majority of employees with an understanding that change is inevitable had also resigned or accepted another position (Dasborough et al., 2015). These findings reinforce the importance of

using proven change models and promoting consistent and transparent communication strategies if employee retention is a priority.

As aforementioned, identifying the correct change model can be a difficult task. In the early 1980s the United States Department of Education commissioned a team to research 37 campuses and their response to the changes in institutional mission emphasis, financial resource levels, enrollments, and number of faculty members (Campbell, 1982). The findings provided a myriad of practical steps used to counter the changes such as budget freezes/cuts, investments in fundraising and admissions departments, the alignment of curriculum and programs to meet marketplace demands, and careful prioritization of capital projects and maintenance (Campbell, 1982). Colleges and universities using these strategies have been able to, metaphorically, keep their head above water but a time is coming when those tactics will not be enough to remain afloat. Sustainable and permanent change across campus is needed to protect institutions from merging or closing all together. Strategic planning is one-way institutions can develop a vision for radical change and create necessary inertia to implement successful change initiatives.

Strategic planning. The origins of strategic planning can be traced back to the 1950s where early writings on management described the cultures and practices of local businesses (Porter, 1983). It took another decade before scholars at the Harvard Business School developed a conceptual model intended to analyze core issues facing a business. Learned, Christensen, Andrews, and Guth (1965) developed a theory about corporate strategy. The four questions posed in the framework are, what are the opportunities and threats in my industry? What are my company's strengths and weaknesses? Is my strategy consistent internally and with the environment? These questions provided the foundation for the creation of other frameworks such

as the classic strengths, weaknesses, opportunities, and threats (SWOT) analysis developed by Albert Humphrey and his team at the Stanford Research Institute.

Historically, frameworks developed by scholars, such as Learned et al. (1965), included unique and detailed explanations for each model, which made it difficult to make any generalizations that could be beneficial to other organizations. On the contrary, frameworks developed by practitioners, largely consulting firms, fell on the other end of the spectrum and provided very little distinctive insight or organizational-specific feedback and detracted from the effects strategic planning can have within an organization (Porter, 1983).

John Bryson remains on the forefront of current research and implementation of strategic planning within education and other non-profit entities. He views strategic planning "as a deliberate, disciplined approach to producing fundamental decisions and actions that shape and guide what an organization is, what it does, and why" (Bryson, 2011, p. 8). An emphasis on intentionality is consistent throughout the literature and has shaped the way organizations approach the strategic planning process. Similar to the original corporate strategy model, Bryson asks three guiding questions to help organizations navigate the process: Where are you? Where do you want to be? How do you get there? Variables that influence the answers to the first two questions include mission and mandates, structure and systems, communications, programs and services, programs and services, budget, and support. A successful change initiative requires a strategic plan, technology and human resource plans, communications, hiring and training, restricting and reengineering, and budget allocations (Bryson, 2011).

The resources required to develop and implement a strategic plan are extensive, but the benefits are often worth the investment. Beyond creating change, strategic planning is a tool that

organizations can use to promote the public value of their existence and services (Letizia, 2017). The perception of competent leadership builds trust and confidence from those within and outside of the organization. Positive relationships with the community are extremely beneficial, specifically for educational institutions who rely on the students and parents of said community to provide a portion of the financial support through tuition and private support needed to operate (Thornton & Perreault, 2002).

Bryson (2011) highlighted some of the tactical benefits to strategic planning, which include "promotion of strategic thinking, acting, and learning … improved decision making … enhanced organizational effectiveness, responsiveness, and resilience … enhanced organizational legitimacy … enhanced effectiveness of broader societal systems" (pp. 14-16). With even a short list, it is clear that strategic planning can promote an organization's wellbeing. Unfortunately, just as the advantages of strategic plans are plentiful, so are the obstacles blocking the way. It is well documented that the majority of change initiatives fail. (Beer & Nohria, 2000; Burnes, 2004; Kotter, 1995). Despite the extensive research on change, scholars have difficulty pinpointing the greatest hurdle organizations face in implementing change.

Holman and Devane (1999) explain the difficulty of simultaneously balancing the three critical aspects of strategic planning, which are inclusivity, thorough analysis, and speed of the process. Most organizations can accommodate one, maybe two, but very few can accomplish a planning process that incorporates all three. A strategic planning process encourages individuals to think and evaluate freely but, conversely, "plans by their very nature are designed to promote inflexibility–they are meant to establish clear direction, to impose stability on an organization" (Mintzberg, Ahlstrand, & Lampel, 1998, p. 64). This dichotomy presents a challenge for

practitioners to find a balance between establishing organizational direction while also fostering a culture of continuous learning. Regardless, many believe the benefits far outweigh any hypocrisy associated with developing a strategic plan.

Specifically, in education, institutions have been known to erroneously employ strategic planning initiatives to solve short-term issues (Easterby-Smith, 1997; Ellis et al., 2012; Levinthal & March, 1993). Plans are often developed to assist in grant acquisition, meet compliance standards, or aid in a political or public relation effort (Thornton & Perreault, 2002). This type of near-sighted planning limits the effectiveness of strategic plans and can have adverse effects to the organization (Easterby-Smith, 1997).

When appropriately applied, strategic plans help organizations navigate through long-term change where the outcomes are more-or-less comprehensive goals that will fluctuate with the changing environments and resources. Many times new plans are developed in conjunction with leadership transitions and environmental jolts (Bryson, 2011). The long-term commitment to a strategic plan will benefit an organization and its employees more than attempting to use plans as a temporary fix to short-term problems.

Collaborating with the appropriate stakeholders is another key aspect to strategic planning processes. Senge stated his concern of an educator's ability to successfully participate in a strategic planning process in a 1995 interview with John O'Neil. He believes educators are too isolated and rule-bound and have difficulty thinking of abstract or hypothetical concepts. Participants in the planning process must have the capability to learn from past experiences and adapt to a situation when it does not mirror what was described within the plan (O'Neil, 1995).

To avoid any obstacles within the planning process, scholars and practitioners continue to seek out practical implementation strategies. One tactic that has been found valuable is the use of mental models. Although the concept has been around since the 1940s, mental models were introduced to strategic planning efforts in the 1990s. Mental models can be described as "knowledge structures that people use to understand and predict particular social or technological phenomena" or deeply embedded assumptions people hold (Ellis et al., 2012, p. 92). Identifying known mental models prior to planning will make the tasks of evaluating historical data, identifying current strengths and resources, and establishing future goals more efficient.

Creating new mental models will help redefine symbolic meaning, develop new reactions to stimuli, facilitate shared knowledge, and interpret data within the organization. For these reasons and more it is advantageous to calibrate individual mental models before initiating planning process (Anderson et al., 2006; Argyris & Schön, 1978; Ellis et al., 2012). Individuals with advanced knowledge or subject expertise are shown to have a greater number of mental models. Similarly, organizations that successfully implement change often recruit more, and larger, mental models throughout the process than unsuccessful organizations (Ellis et at., 2012). Incorporating the use of and redefining mental models can play an influential role in an organization's ability to plan. With a commitment to continuous learning, organizations can use those new mental models to their advantage and successfully plan for change (Mbassana, 2014; Senge, 2000; Voolaid & Ehrlich, 2017).

Organizational Learning

Organizational learning is a theoretical construct that blossomed in the 1950s, but is grounded in developmental psychology theories (Stinchcombe & March, 1965). Researchers

became interested in what, at the time, seemed like a phenomena when organizations collectively learned as a cohesive unit (Fiol & Lyles, 1985; Levitt & March, 1988; March, 1991; Mirvis, 1996). The research conducted by Herbert Simon and others at the Institute for Social Research and Tavistock Institute was the first empirically directed study of organizational learning, but the origin of collective learning, now known as systems theory, can be tied back to the 1600s (Mirvis, 1996).

Copernicus wrote about how the sun and solar system working in tandem and planted the seed for systems thinking as we know it today (Kezar, 2005; Mirvis, 1996). By applying the systems thinking framework, researchers are able to study an organization as unique individuals that act to influence an overarching organism. Understanding the intricate web that makes up an organization and how each strand can influence those around it is a foundational concept in both systems thinking and organizational learning.

Influential research conducted by Cyert and March (1963), Argyris and Schön (1978), Fiol and Lyles (1985) and contemporaries, such as Peter Senge (1990) and George Huber (1991), have shaped the connection between systems thinking and organizational learning. Their theories have shaped the way organizational learning is defined, researched, analyzed, and incorporated into corporate environments. Fiol and Lyles (1985) suggested that organizational learning is a body of research that defines if, and how, organizations learn. Fiol and Lyles (1985) as well as most contemporary scholars believe that change is a tangible outcome of organizational learning and confirms that organizations are learning organisms. Where some disagreement remains is identifying whom specifically acquires the knowledge. The majority believe that organizations themselves can learn, but some researchers insist that only individuals within an organization

that are capable of learning (Fiol & Lyles, 1985; Huber, 1991; Levitt & March, 1988; March 1991).

Stemming from the notion that organizations are able to acquire knowledge grew a concept called the learning organization (Bui & Baruch, 2010; Senge, 1990; Watkins & Marsick, 1993b, 1996). It is important to note that organizational learning is theoretically and conceptually different from learning organizations. Organizational learning is an academic field of study based on rigorous empirical research. The learning organization takes on a slightly more practitioner-based focus while still remaining based in theoretical research (Argyris & Schön, 1978; Marsick & Watkins, 1999).

Peter Senge popularized the learning organization framework in his 1990 book, *The Fifth Discipline: The Art & Practice of the Learning Organization*. Senge and other scholars define learning organizations as an environment or culture that is intentionally created to enhance learning within an organization (Huber, 1991, Senge, 1990). Although learning organization constructs provide a greater depth of consultative insight, understanding the theoretical underpinnings of organizational learning provides a historical context that assists in the analysis and implementation of the framework.

Fiol and Lyles (1985) consolidated most of the original works on organizational learning in attempt to establish a widely accepted model. From their analysis, two areas of consensus and four factors were identified from the available research. The first consensus highlighted that environmental alignment was necessary for organizational learning to occur. Aligning the organization's resources, systems, and goals with the external environment is necessary to remain competitive and sustainable for long-term operation. Fiol and Lyles (1985) clarified that

"alignment implies that the firm must have the potential to learn, unlearn, or relearn based on its past behaviors" (p. 804).

The second consensus was that scholars found organizational learning to be distinct from individual learning (Fiol & Lyles, 1985; Tsang, 1997; Watkins & Marsick, 1993b, 1996). Organizational learning studies the memories, behaviors, mental models, norms and values held within an organization regardless of time, leadership, or employee turnover. For many, Fiol and Lyles' (1985) research put to rest the question of which entity acquires knowledge.

Finally, the four factors that influence whether or not learning will occur include an organization's culture, strategy, structure, and environment (Fiol & Lyles, 1985). Each factor plays a unique role in how an organization learns and, although it has been over thirty years, the tenants of these ideas still appear in the current research and application of organizational learning.

Another controversy in the field of organizational learning is how to decipher when learning actually occurs. The traditional view states that learning can be claimed only when there is an increase in organizational effectiveness (Argyris & Schön, 1978; Garvin, 1993; Fiol & Lyles, 1985). This definition lacked to encompass situations where an organization learned but did not apply the knowledge in an overt fashion. Using the strategic planning process example, it is possible that an organization acquires information but must wait for another planning process to actually integrate and implement the newfound knowledge.

Huber (1991) offered a way to evaluate learning that focuses on cognitive changes rather than behavioral. He states that "an entity learns if, through its processing of information, the range of its potential behaviors is changed" (p. 89). Narrowing the criteria for learning discounts

the process of acquiring knowledge and does not acknowledge the information gathered although not directly used (Huber, 1991). Another example includes when an organization discovers research supporting an alternative operating procedure but when tested it turns out to be less effective than the original. Even though the information was acquired, distributed, and interpreted, it is only under the latter definition that this example could be considered learning.

Foundational research. A recognized assumption within organizational learning literature is that over time organizations and its members become rigid. Establishing that an organization has the capacity and ability to change begs the question of why change is not common or, in some cases, actively resisted. Kahn, Katz, and Gutek (1976) describe the institutionalized nature of organizations. Routines give way to precedence, precedence removes the need for creative thinking, bureaucracy and politics override the ability to think openly, and soon change is met with defensive reasoning. Defensive reasoning "is when people continue with a course of action for fear it will illustrate, they were wrong in the past or fear experimenting because they may fail" (Kezar, 2005, p. 11). Barriers to incorporating organizational learning principles often take time to develop but once set they remain deeply rooted until an outside stimulus or environmental jolt shifts the organization.

Levitt and March (1988) coined the phrase "residue of past learnings" to describe the institutionalized barriers within an organization and implored the use of Lewin (1947) unfreeze-learn-refreeze strategy to aid in unlearning past practices while implementing new information. The advantages of an organization free of habituated routines can be seen in the "Honda effect" which was documented by Pascale (1984). The inexperience of the Japanese automaker actually fostered an environment rooted in creative thinking, open dialogue, and the creation of new

mental models. The absence of institutionalized norms, historical context, and other politically driven agendas helped create a culture that closely aligns with the concepts described in organizational learning.

It is not impossible for existing organizations to incorporate learning principles within their current culture but it is often more complex. The barriers covered prior in this section typically stem from behavioral issues. Argyris and Schön (1974) identified a learning deficiency in organizations that exposed the differences between people's "espoused theory" and "theory in use". This research identified that there is often a disconnect between an organization's intentions and their actions (Preslipcean & Bejinaru, 2016). The divide is often due to an individual's desire to have control over their environment, reduce conflict, and convince themselves that their actions are reasonable (Argyris & Schön, 1974). This study was the catalyst for more research on the topic of personal defensive routines and Model I learning (Argyris & Schön, 1978). Similar to the "residue of past learnings" theory, Model I learning states that "even as an organization develops a new strategy or members try our new behaviors, no one has distilled lessons from the last or been prepared to learn from the future" (Mirvis, 1996, p. 21).

Through his work with sea mammals, Gregory Bateson (1972) identified a second-order ability that allowed the capability to self-correct or learn how to learn. Building upon this idea Model II, or double-loop, learning was constructed. Double-loop learning is a foundational piece in organizational learning as it challenges "existing assumptions and beliefs to align the institution to the environment and therefore requires transformational change" (Kezar, 2005, p. 10). This proactive description of learning encourages inquiry and evaluation both within and external to the organization. Double-loop learning addresses the issues of past mental models and

the divide between “espoused theory” and “theory in use” as it facilitates a critical analysis of past constructs as compared to future ideals. As organizations learn how to challenge past assumptions, it will be possible for them to experience greater progress on other organizational learning concepts (Bui & Baruch, 2010).

Kezar (2005) wrote about organizational learning within higher education and identified a list of features that an institution often possesses that encourages learning. These characteristics include decentralization, trust between employees and managers, new information systems, incentives and rewards, learning culture, open communication, sharing of information, staff development and training, and inquire units. Although it is rare to find an institution that encompasses all of the characteristics, any combination will promote learning across campus. Institutions can use organizational learning principles to address issues of accountability, student outcomes/performance, or operational problems within the institution (Dee & Leisyte, 2017).

Open communication is a foundational trait of organizational learning yet not commonly experienced within higher education. The centralized, or proverbial siloed, nature of higher education encourages pockets of information to never become common knowledge or shared across all constituencies (Kezar, 2005). If one area of the organization excels but the success is not translated to the entire group, true organized learning did not occur. Dill (1999) reviewed 12 innovated universities and found that although benchmarking and experimentation was high, almost no processes had been established to share information broadly. Breaking down the institutionalization of communication is a vital step in transforming higher education with the use of organizational learning principles (Kezar, 2005).

Studying how organizations assess, develop, and implement change is beneficial to the field of human resource, organizational development, and organizational change management as it relates to how individuals interact with their environment for the betterment of the organization (Easterby-Smith, 1997; Marsick & Watkins, 1999; Voolaid & Ehrlich, 2017). Entities, in both the public and private sector, can benefit from the principles and practices that make up organizational learning theories. Despite its simplistic terminology, integrating continuous learning practices can be a difficult task without the use of a strong framework.

Concepts of organizational learning. Synthesizing decades of research is a tedious process but condensing frameworks into a model that is easily understood and applicable to practitioners presents an even greater challenge. Mark Easterby-Smith's (1997) meta-analysis of organizational learning is the most recent effort made to organize the literature so practitioners can consume it easily. Although he refrained from developing a comprehensive theory himself, Easterby-Smith (1997) summarized the research by segmenting it into five disciplines of research. The disciplines consist of psychology and organization development, management science, sociology and organizational theory, production management, and cultural anthropology. Additionally, five threads were identified to assist in the creation and implementation of a continuous learning culture (Easterby-Smith, 1997).

The first theme is based on Bateson's (1973) work with Zero Learning. He found that an individual acquires a basic level of knowledge in response to a stimulus. Building upon that, single- and double-loop learning theories describe the ability of an organization to learn through feedback and situational outcomes (Argyris & Schön, 1978). Developing levels of learning

establishes a hierarchical structure that allows for richer research and analysis on knowledge acquisition.

The second thread highlights the growth of cognitive processes within learning. Individuals create their own cognitive maps, or mental models, comprised of collective meaning and knowledge creation that can be shared with others (Dixon, 1994; Huber, 1991). Mental models are how individual knowledge can attribute to organizational learning; this type of distribution can have multiple benefits for the organization. As knowledge is shared, others have the ability to connect new mental models with pre-existing models that could lead to information or solutions that were not previously apparent. The team-like nature of information sharing can be a hindrance to organizational learning as it is limited by the cognitive capacities of the individuals belonging to the group (Huber, 1991).

Action or experiential learning, the third thread, begins with the learning levels and then continues on to reflective observation, abstract conceptualization, and active experimentation (Dixon, 1994; Kolb, Rubin & McIntyre, 1973; Revans, 1971). Action learning is important to organizational learning as it allows individuals to act upon their cognitive maps and use knowledge in a practical application. The implementation of knowledge spurs the ability to create significant change within an organization. Individuals who excel in experiential learning often create environments and organizations where change is welcomed and valued.

Kolb et al., (1973) argued that individuals have a natural preference towards a certain learning method. Learning styles, the fourth thread, vary due to environments, situations, personality, and task. Styles can be established from the bottom-up through individual

preference, or top-down because of change in policy. An organization's distinct learning style influences the environment, performance, and culture of the group (Easterby-Smith, 1997).

The fifth thread addresses the rationale behind why some individuals have difficulty learning from experience. Argyris (1986, 1990) argues that change is most difficult when individuals' behavior does not match their rhetoric (espoused theory vs. theory-in-use). This conflict of thought and action prevents true organizational learning from occurring, although it is often difficult to detect. Individuals can actively participate and acquire knowledge but unless that information manifests itself into measureable changes in action, it is difficult to assess if full learning has been achieved (Argyris & Schön, 1978; Garvin, 1993; Fiol & Lyles, 1985).

Theoretical Framework

Senge's (1990), *The Fifth Discipline*, set the stage for what is known today as the learning organization. The learning organization model was originally created to help corporations position themselves for future success, but it became clear that academia could also benefit from the practices. In a 1995 interview, Senge defined a LO as "an organization in which people at all levels are, collectively, continually enhancing their capacity to create things they really want to create" (O'Neil, 1995, p. 20). Learning organizations encourage employees to develop their own personal skills while collaborating within teams of employees and the greater environment (Bak, 2012).

Senge (1990) highlighted five characteristics that an organization must possess to be considered a learning organization. The characteristics include personal mastery, team learning, building a shared value, systems thinking, and the presence of mental models (Senge, 1990). Personal mastery is simply the personal dedication to self-improvement by each employee.

When individuals collaborate on development efforts it is considered an example of team learning or learning units. This characteristic is necessary to spread the learning characteristics across the entire organization (Bak, 2012). Shared values, according to Senge, goes beyond establishing a vision statement. It is the process in which individuals create new metal models and become devoted to a cause greater than themselves.

Shared values are a result of continuous discussion about vision and organization direction and have more to do with fighting the notion that "people at all levels see themselves as disempowered; they don't think they have leverage to make any difference" (O'Neil, 1995, p. 21). Finally, if organizations truly want to become a learning organization, they will need to challenge the negative or limiting mental models that exist. These models are often connected to traditional practices, ideals, and attitudes that prohibit continual growth of the organization (Bui & Baruch, 2010).

Senge's (1990) theory aligns in many ways to the model proposed by Watkins and Marsick (1993b). Both models reinforce that learning is not the final outcome, but rather a continuous process that must be embedded into the culture that results in improved processes, products, or service. The majority of learning organization models subscribe to the notion that organizations inherently have the capacity for change. Both Senge's and Watkins and Marsick's models agree that change occurs when mental models are redefined or created, there is wide spread participation and communication, and systems thinking is apparent in organization (Watkins & Marsick, 1993b). Additionally, the models leverage the use of intellectual capital to advance the institutional mission and achieve desired goals. Types of capital include human,

structural, systems and policies, and relationships with individuals both within and outside of the organization.

For the purpose of this study, the model developed by Karen Watkins and Victoria Marsick (1993b, 1999) will be used to define, measure, and analyze what it means to be a learning organization. As described below, their framework best aligns with higher education, has been rigorously tested for validity and reliability, and provides practical steps for institutions to take in their transition of becoming a learning organization.

Watkins and Marsick's learning organization. Watkins and Marsick (1993b) first described their research on learning organizations in their book, *Sculpting the Learning Organization: Lessons in the Art and Science of Systemic Change*. Their model uniquely emphasizes "systems-level, continuous learning, that is created in order to create and manage knowledge outcomes; which lead[s] to improvement in the organization's performance" (Marsick & Watkins, 1999, p. 10). Fundamentally, their design is based on the need for intellectual capital, or continuous learning, to occur at multiple levels within the organization, rather than generalizing learning that takes place only at the organizational level.

Marsick and Watkins (1999) reinforce the importance that systems-level learning has to allow learning to take place on an individual, team, organizational, and global level. Segmenting organizations into their respective levels aligns with the premise that learning organizations heavily rely on systems thinking to succeed (Marsick & Watkins, 1999; Senge, 1990). When individuals can understand and predict how their behavior influences other levels of the organizations, then systems thinking is said to be embedded within the culture. It shapes the way individuals and groups interact with the organization.

Initially, Watkins and Marsick (1993b) prescribed six dimensions, similar to Senge's characteristics, which were meant to help classify an organization as a learning organization. Following additional research and implementation, one more imperative was added to theory. Each dimension compliments the others, can be measured, and provides a framework from which an organization can identify areas of strength and improvement. The seven disciplines include:

- Create continuous learning opportunities
- Promote inquire and dialogue
- Encourage collaboration and team learning
- Establish systems to capture and share learning
- Empower people towards a collective vision
- Connect the organization to its environment
- Provide strategic leadership for learning

Each discipline highlights a unique aspect of learning organizations and empowers an organization to transform itself. Figure 1 succinctly displays the relationship between systems-level learning and learning organization disciplines.

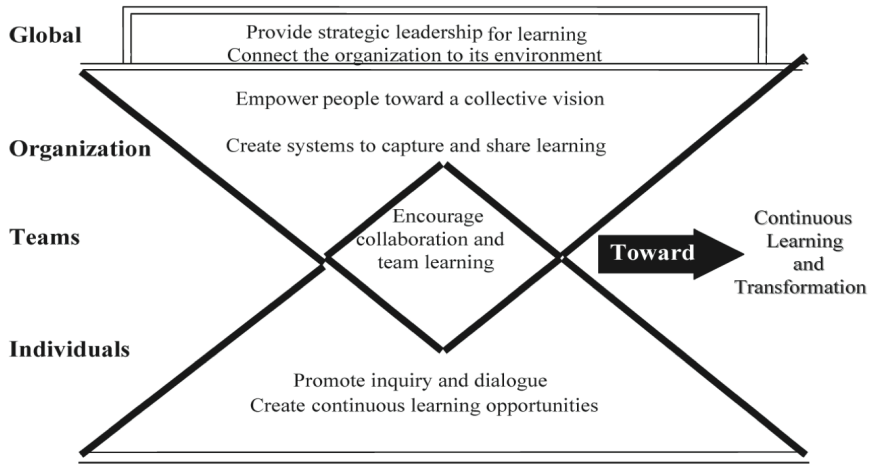

Figure 1. Relationship between systems-level learning and learning organization disciplines (adapted from Watkins & Marsick, 1993, p. 10, and Watkins & Marsick, 1996, p. 5).

Creating continuous learning opportunities can take shape in a variety of ways. Fostering learning can transpire through deliberately planned events, informal or formal mentorship, structured curriculum, or organically occurring situations (Marsick & Watkins, 1999). Continuous learning is often opportunistic and requires expert teachers or coaches to be nimble enough to respond to an advantageous situation. For example, allowing people to immediately examine and reflect on a problem or challenge they are facing, rather than moving along to another project, creates an environment where people know that learning is valued as much as production.

The benefit of continuous learning is that people, if given the time to learn from problems or mistakes, will be better prepared to limit or prevent issues in the future (Marsick & Watkins, 1999). These small improvements will result in higher effectiveness across the entire organization (Boyce, 2003). Continuous learning "requires workers to be willing to change, adapt, grow, and take control of work-related decisions" and is directly related to the performance at all levels (Watkins & Marsick, 1993b, p. 13).

Inquiry and dialogue within an organization plays an integral role in the relationship between the individual and team/department learning levels. As it sounds, this imperative encourages individuals to clarify, analyze, and ask critical questions with the intent of benefitting the work and performance of the entire organization (Marsick & Watkins, 1999). It is important that dialogue moves beyond superficial levels of discussion and delves into the meaning of the words and ideas shared by one another. Watkins and Marsick (1993b) found that "inquiry that questions and helps, but does not accuse, has the potential to build a bridge between people who are attempting to solve the same problems" (pp.13-14). Leadership plays a significant role in shaping this imperative within an organization. Leaders that restrict inquiry and dialogue or spend more time telling people how things should be done rather than asking how things can be done can severely limit an organization's ability to learn.

Encouraging collaboration and team learning can quickly influence change throughout an organization. Teams within an organization have the capability of spreading ideas, resources, and tools to other employees, which can eventually permeate the entire organization. Team learning reaches a climax when participants "learn the skills of framing, reframing, experimenting, crossing boundaries, and creating an integrative perspective" (Watkins & Marsick, 1993, p. 14). Collaboration is able to thrive best in a decentralized model so long as people value teamwork and can move beyond individual learning. Often, customer service-related issues spur a need for team learning and collaboration to ensure high customer satisfaction (Watkins & Marsick, 1993b).

The fourth imperative is to establish systems to capture and share learning (Marsick & Watkins, 1999). This imperative helps to reshape organizational memory, which is the

knowledge embedded within an organization's culture. As individuals continually learn, this imperative stresses the importance of storing that knowledge so others within the organization can benefit as well. Information deemed worthy of saving will range from simple facts to complex solutions. This process often recruits the use of technology to help catalog information. Regardless of the frequency of individual employee turnover or number of leadership changes, organizational memory carries over stored knowledge and maintains the current culture unless there is an intentional action to alter that memory (Marsick & Watkins, 1999).

Empowering people toward a collective vision supports several of the other learning behaviors and is described as an intentional act to build a culture of systems-level learning. To establish a collective vision, leadership must adequately empower individuals so they can see themselves playing a role in the success, or failure, of the agreed upon goals. Goals spur a need for increased human capacity and frees people to "experiment and take risks, and then learn from results and from mistakes" (Marsick & Watkins, 1999, p. 14). Learning through experimentation often results in achieving goals and increasing the effectiveness and efficiency of the organization. In several studies of the learning organization model, leaders found that forming a collective vision increased motivation and created a deeper unity among individuals (Marsick & Watkins, 1999).

Connecting the organization to its environment holds a few meanings within the framework. The first focuses on the way an employee perceives their work-life balance and the characteristics of the organization that is directly affecting their experience. Organizations must be sensitive to changes in the environment that influence their internal constituents. The second meaning addresses external constituents such as competitors, legislative bodies, and other

external groups. Marsick and Watkins (1999) highlight the importance of connecting internal practices and policies with that of local and global marketplaces. Both aspects of connecting an organization to its environment can promote a healthier work-life balance and environment.

Providing strategic leadership is an integral yet complex practice that leaders must learn to skillfully navigate. Leaders will be more successful at integrating continuous learning within their organization if they find ways to model and reward the desired actions. This can be accomplished by deliberately creating spaces, programs, or mentoring relationships that facilitate learning behaviors. Leaders model through the investment of additional resources (Marsick & Watkins, 1999). Employees can often detect when a leader is being disingenuous so maintaining consistent and transparent communication with employees can help alleviate any distrust.

Becoming a learning organization. As briefly reviewed in the beginning of this chapter, organizational change literature covers a vast number of theories, models, and tactical approaches. Marsick and Watkins (1999) developed an iterative change model that accompanies their learning organization framework and guides the process of diagnosing, changing, and learning from organizational change. Their change model takes the foundation of Kurt Lewin's (1947) action research on the unfreeze, change, freeze theory and incorporates current research of their own. Marsick and Watkins (1999) began by encouraging key stakeholders to diagnose the situation, creative a vision, and identify specific tactics that can be used to achieve that vision. Throughout the process, data should be collected and analyzed to evaluate the effectiveness of the new tactics. This information allows stakeholders to adjust their plans to ensure that continued progress is being made towards the original vision. Figure 2 depicts the

change model Marsick and Watkins (1999) developed to best address and implement change within an organization.

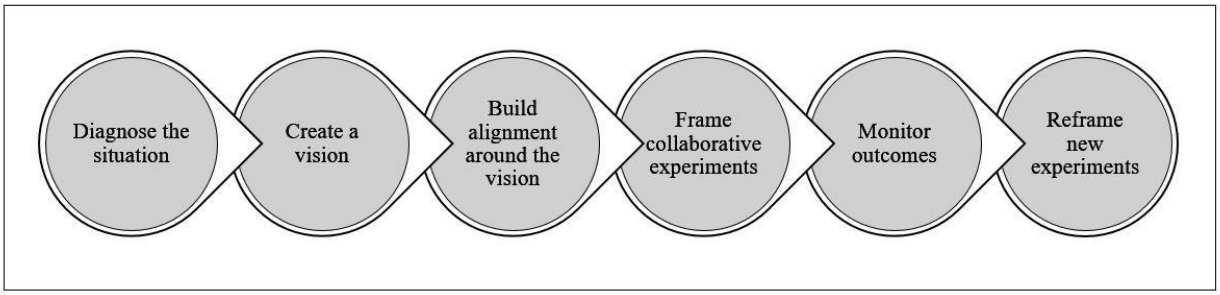

Figure 2. Change model (Marsick & Watkins, 1999).

Deciding to become a learning organization is often the result of increased competition, an environmental jolt, or possibly the internal determination that more can be achieved (Marsick & Watkins, 1999; Örtenblad & Koris, 2013). Although the level of urgency can dictate the motivation to which an organization will commit to learning dimensions and behaviors, change must begin by analyzing the current environment. Understanding an organizations climate, goals, and structure will support the development of a plan moving forward. It is important that the evaluation takes into consideration the organizational memory and relevant historical context to account for possible internal politics (Marsick & Watkins, 1999). Overlooking structural hurdles or underlying political conflicts can quickly derail a change initiative.

Marsick and Watkins (1999) reinforced the need to empower people toward a collective vision in the second phase of the change model. As individuals unify around one common goal, many of the learning organization imperatives begin to blossom. Conversely, this is typically when resistance to the vision becomes most apparent and has the potential to sabotage the entire process. If people cannot envision the future or if they feel decisions were made without them,

resistance can develop towards the change initiative. Increased communication, discussion, inquiry, and transparency can be implemented to successfully navigate that phase of the model.

Encouraging collaboration is essential to building a vision (Marsick & Watkins, 1999). Garnering the support of employees within the organization happens most effectively when they have the opportunity to participate (Marsick & Watkins, 1999; Senge, 1990). Consensus among key stakeholders is vital to the success of change initiatives but, for whatever reason, is the step organizations give the least attention. Some do not see the value in building a coalition while others are caught up in excitement of planning for the future and overlook the need to communicate along each step of the way. Marsick and Watkins (1999) stressed that "successful learning organization experiments engage the whole system in some way … [and] maintain ongoing dialogue around whether or not the organization is acting consistently with the vision" (p. 22).

Framing the experiment helps to identify specific tactics that can be used to implement change (Marsick & Watkins, 1999). During the diagnosis process, it is common to find areas that only require minor updates while others necessitate a complete overhaul. The change model and learning organization dimensions designed by Watkins and Marsick (1999) focuses less on how change occurs and more on how change is communicated, assimilated, and measured. When it comes to implementation, and institution's choice of allies, advocacy for innovation, and alignment with the long-term vision are the three key factors in framing the experiment (Marsick & Watkins, 1999). It is valuable to be aware of the barriers, both structural and personal, before proceeding with a change initiative.

Monitoring the outcomes and effectiveness of the experimentation phase is essential in creating a continuous learning environment (Marsick & Watkins, 1999). This is because analyzing and refining change tactics exemplifies the double-loop learning required of learning organizations. It is less important that the first attempt at change is successful but rather that an organization has the institutional will and capacity to learn and adapt when a second try is necessary.

Many organizations, whether it be intentionally or not, do not take the time to review an experiment's results (Marsick & Watkins, 1999; Tsang, 1997). Not only is that a missed learning opportunity, but forgetting to review past situations can negatively influence individual's motivation to take part in future change initiatives (Marsick & Watkins, 1999; Watkins & Marsick, 1993b, 1996). Individuals assume that it was merely a protocol rather than an intentional initiative designed to have a lasting impact. Poor communication about the process opens the door for greater opposition to the next initiative (Lou, Song, Gebert, Zhang, & Feng, 2016). Many organizations find benefit to appointing a specific person or team to collect, analyze, and interpret change data (Edgley-Pyshorn & Huisman, 2011; Farrell, 2017; Willis, 1991). This individual can be responsible for ensuring that inquiry and dialogue, consistent communication, and the creation of new mental models are incorporated throughout the entire process.

Inquiry and critical analysis are imperative in reframing future initiatives (Marsick & Watkins, 1999). Reviewing past experiments and the performance of certain tactics will help an organization determine where to make adjustments in their actions. A true learning organization will continue this cyclical process of establishing visions, implementing tactics, and reviewing

outcomes as they strive to improve (Bui & Baruch, 2010; Garvin, 1993; Senge, 2000; Watkins & Marsick, 1993b). To aid in the process of incorporating change by becoming a learning organization, Marsick and Watkins (1999) developed an instrument for "having conversations with people in a company about what a learning organization means to them, and what they think should change" (p. 48).

The instrument is known as the Dimensions of the Learning Organization Questionnaire (DLOQ) and is used to assess the dimensions and behaviors of a learning organization. Chapter 3 describes the development and statistical strengths of this tool. For organizations or facilitators, the DLOQ is helpful in taking "the pulse of an organization at a particular moment" and can be used periodically to "track progress in implementing initiatives against baseline data" (Marsick & Watkins, 1999, p. 48). Responses are recorded using a six-point Likert scale and can be used to gauge the status and progress of an institution if used again over a period of time. Watkins and Marsick, along with several consulting agencies and researchers, employ the use of the DLOQ in their own research of organizations. The instrument provides a solid foundation for organizations looking to embark on a strategic plan or other major improvement processes (Marsick & Watkins, 1999).

Measuring learning organizations. The use of the DLOQ in empirical research continues to increase, as over 170 requests for use were made from 1997-2013. Conversely, application within the field of higher education remains low or within the confines of dissertation research (Marsick, 2013; Mbassana, 2014; Tsang, 1997; Voolaid & Ehrlich, 2017). The research that has been conducted has been used to evaluate how institutions of higher education align with

learning organization dimensions and behaviors (Cura, 2016; Rus, Chirică, Ratiu, & Băban, 2014; Voolaid & Ehrlich, 2017).

Faith Cura (2016) sought to evaluate the learning organization dimensions of the 32 institutions located in Northern Iraq. The DLOQ was distributed to each employee of the 32 institutions to collect their perceptions of their respective institution. Of the 1,200 questionnaires distributed, 773 were returned and incorporated in the analysis (Cura, 2016).

In total, the seven dimensions resulted in a mean score range of 3.48-3.72 on a six-point Likert scale (Cura, 2016). The most perceived dimension by employees was inquiry and dialogue while the least was Empowerment. Cura (2016) segmented employees by institution type to evaluate variance between the groups and found that employees from private institutions reported team learning as their lowest perceived dimension on campus. Cura (2016) noted that the region of study "lived under the rule of a dictator for a long time and it effected attitude of people and organization structure" (p. 64). In general, private institutions scored higher in each of the seven dimensions compared to their public counterparts (Cura, 2016).

Karen Voolaid and Üllas Ehrlich (2017) implemented the DLOQ to measure the extent of which two universities located in Estonia operated as a learning organization. Their goal was to investigate any potential correlations or differences of learning organization dimensions between institution types. Voolaid and Uhrlich (2017) selected one private and one public institution located in Estonia. The DLOQ was distributed to the business school employees of the private institution and the business and engineering employees of the public university. Of the 245 possible participants from those three categories, 84 completed questionnaires were used for the data analysis (Voolaid & Uhrlich, 2017).

Data were scored using a six-point Likert scale and researchers choose to analysis based on the system level, individual, group, and organization, as well as the seven dimensions. What Voolaid and Ehrlich (2017) found is that institution type of private or public did not have an impact on the individual learning level as both reported an equal mean score of 3.95. Both the public and private institutions perceived the presence of teamwork and communication to a statistically significant degree. Voolaid and Ehrlich (2017) attempted to explain these characteristics as a result of the Estonians regaining their independence in the early 1990s and the increase in research funding for project-based studies which require high levels of teamwork and dialogue.

Very few differences were found between the public and private responses except for the dimension of forming a collective vision. Engineering employees of the public institution scored their perception of a collective vision significantly lower than the business employees at the private institution, 3.49 and 3.90, respectively (Voolaid & Ehrlich, 2017). The researchers reiterated that historically private institutions relied more heavily on employee participation when developing a vision or plan, which would account for the difference in perception (Voolaid & Ehrlich, 2017). The non-significant variance between public and private institutions made it impossible to draw any immediate conclusions, but Voolaid and Ehrlich (2017) call for further research to investigate possible implications of institution type on learning organization behaviors.

Another unique study using the DLOQ was one in which student perceptions were gathered to assess learning organization dimensions and behaviors. Rus et al., (2014) focused their study on two public Romanian universities and the perceptions of their respective staff,

faculty, and students. The objective was to measure the perceptions of different internal stakeholders since the educational sector is typically viewed as, or assumed to be, a natural learning environment but does not always perform as such (Rus et al., 2014). In total, 536 participants submitted a complete questionnaire. The largest segment consisted of the faculty members with 234 participants, but students were close behind with 227 completed surveys. Staff members only made up 52 of the total participants (Rus et al., 2014). The mean age of participants was 33.3 years.

Again, the data were collected using a six-point Likert scale. The seven learning organization dimension mean scores were reported within a range of 3.37-3.96 with the perception of inquiry and dialogue receiving the lowest score and provide leadership the highest (Rus et al., 2014). Aggregated, the two Romanian institutions scored a 3.64 on the DLOQ indicating that the majority of constituents believed the institutions to be learning organizations (Rus et al., 2014). In the analysis, Rus et al. (2014) found "the data revealed that demographic variables, mainly age and type of university, were significantly associated with organization status [and] specific dimensions of learning organization" (p. 149). The authors continued on that although they identified a few correlations, the evidence was moderate at best and further research is needed to better understand the status of universities as learning organizations (Rus et al., 2014).

Action technologies. Implementing change within an organization can be difficult regardless of the model or theory selected. Marsick and Watkins (1993a, 1999) make the case for the use of action technologies, or learning behaviors, to promote radical and sustainable change. The three specific technologies that relate to learning organizations are action research, action

learning, and action science. Each have a unique ability to integrate learning through hands-on experiences, which has been associated with promoting lasting and strategic change.

Action research weaves data-driven decision-making strategies with change initiative models (Watkins & Marsick, 1993a). It provided guidance in the creation of Marsick and Watkins' (1999) change model as seen in the way they balance time for action and reflection. As the original action technology, action research grew out of the assumption that people would be more willing to change if they collected, analyzed, and interpreted data. Typically, action research incorporates five specific steps: forming groups who share a problem, reflect on the problem, collect data regarding the problem, analyze and discuss the data, and design interventions to solve the problem (Marsick & Watkins, 1999). Those steps each have a place within the learning organization dimensions promoted by Watkins and Marsick's model. Action research proposes that individuals have the ability to learn and adapt if presented with adequate data, which puts much of the responsibility on individuals rather than the organization as whole.

Action learning describes people learning through hands-on experience. In the early 1940s, Revans (1982) observed individuals having greater success learning a task by talking with colleagues on the job compared with in a formal learning setting. Similar to the learning organization imperative of dialogue and inquiry, free and transparent communication is a key aspect of action learning. Individuals are encouraged to ask questions and challenge assumptions in order to understand a concept. These questions can uncover new ideas and solutions to problems within the working environment. As long as individuals are empowered to apply those ideas, action learning can transform the behaviors of the organization and successfully embed change into the culture.

A major hurdle to applying action learning is not fully addressing the current assumptions, beliefs, and ideas living within an organization (Watkins & Marsick, 1993a). Each one plays a role in creating mental models and, if not questioned, can prevent change from occurring. Marsick and Watkins (1999) warn that it becomes increasingly difficult to implement change initiatives when assumptions, regardless of fact, become reality and engrained in the organizational memory. Questioning and critical inquiry helps to prevent some of the harmful effects that negative mental models can have within an organization.

The third action technology applicable to Watkins and Marsick's (1999) framework is action science. Action science seeks to bring scientific analysis to interpersonal actions. Scholars using action science begin with the assumption that people do not intentionally make mistakes or act erroneously. Behaviors and responses often come naturally or instinctively. This makes it difficult for individuals without high levels of self-awareness to identify their own faults. Viewing behavior through the lens of action science applies a systems view to see "how their actions are shaped by culture and by organizational expectations" (Marsick & Watkins, 1999, p. 139). Practical ways to use learning behaviors is by creating shared meaning with others to examine the rationale for change. These can be accomplished by encouraging a critical examination of meanings through transparent and honest discussion.

Leadership. Developing a learning organization is typically the by-product of tedious planning, motivated employees and, perhaps, a little good fortune (Bui & Baruch, 2010; Kareem, 2016). One piece that must be consistently present to incorporate learning organization dimensions is quality leadership (Bui & Baruch, 2011; Edley-Pyshorn & Huisman, 2011; Farrell, 2017; Kareem, 2016; Senge, 1996). Much of the discussion on learning organizations revolves

around simple and practical steps organizations can take to implement the desired learning behaviors. Yet, when it comes to describing the qualities of leaders within a learning organization, the literature is scarce (Marsick & Watkins, 1999). Although researchers have not been able to identify specific characteristics of a learning organization leader, tendencies of successful leaders can help guide those looking to lead their organization through a change process (Kareem, 2016).

Transformational leadership focuses on the evolution of individuals and groups (Kareem, 2016; Northouse, 2016). Northouse (2016) went on to describe it as a type of leadership that can "influence followers on a one-to-one level, to very broad attempts to influence whole organizations and even entire cultures" (p. 162). His definition supports the systems-level and organizational learning ideologies embraced within learning organizations and raises an intriguing question about the relationship between transformational leadership and learning organizations.

Jacqueline Kareem (2016) researched the statistical relationship of leaders and learning organizations in a study of Bengali companies. Kareem examined 750 leaders with transformational and transactional leadership styles, compared them to the leaders of learning organization, and found that no specific style proved to be more advantageous within a learning organization. Nevertheless, she concluded that "leaders should empower rather than control; ask the right questions rather than provide right answers; [and] focus on flexibility rather than insisting on adherence" to see success within the organization (Kareem, 2016, p. 16).

Much of the change literature supports Kareem's (2016) statement about the importance of communication and inquiry during a time of transition. In 2012, Lou et al., (2016) conducted a

study to examine the communication structures between leaders and subordinates through times of change. The survey measured respondent's commitment to change and perception of their leader's communication style. The researchers identified 34 MBA students at a top-ranked business school in Northern China that were currently managing employees and were willing to distribute the survey.

From the 34 MBA students/managers, a total of 194 of their employees completed the survey (Lou et al., 2016). What researchers found is that a leader's communication style directly influenced subordinates levels of fear and anxiety. Additionally, trust and the perception of poor communication were significantly correlated with a lower commitment to change (Lou et al., 2016).

For this reason, leaders of learning organizations are encouraged to encourage employee behaviors of inquiry and discussion to challenge assumptions (Edgley-Pyshorn & Huisman, 2011; Farrell, 2017; Lou et al., 2016). This process will promote the development of new mental models, which ultimately promotes change. Exemplifying these traits will communicate, both verbally and non-verbally, that change should be embraced. Marsick and Watkins (1999) add that, "leaders must provide a safe space in which people can take on new behaviors and realize that it is expected that they challenge the status quo" (p. 159). The actions and words of a learning organization leader should be consistent, transparent, and align with the collective vision of the organization.

In many cases, leaders can rely on the support of others to help promote and communicate changes within an organization (Edgley-Pyshorn & Huisman, 2011; Senge, 2000). Senge (2000) describes the crucial role department chairs play in creating a learning organization

within an educational environment. Chairs have the ability to “introduce new tools, methods, and processes that help people develop better skills in collaborative learning” and “relieve specific constraints that hamper innovators” (Senge, 2000, p. 286). Organizational change literature highlights the close relationship between change management and human resource management (HRM) theories. HRM change models share many of the same concepts used in organizational learning and should be considered as leaders attempt to transition into a learning organization (Edgley-Pyshorn & Huisman, 2011).

Human resource professionals typically specialize in culture management and can also be a great asset to learning organization leaders. Edgley-Pyshorn and Huisman (2011) describes a case study of a British university having great success in their change initiative after incorporating HRM models in the process. Although the sample was small and findings not generalizable, the authors did provide guidance for future studies on organizational change using HRM models. The suggestions are very similar to the change model processes proposed by Marsick and Watkins (1999).

First, it was recommended to isolate specific needs of the institution, establish a clear understanding for why change in necessary, keep people motivated and informed, reinforce the awareness and urgency, and consistently re-evaluate progress (Marsick & Watkins, 1999). The parallels between HRM models and learning organizations should encourage leaders to collaborate with human resource professionals when transitioning or attempting to remain a learning organization (Marsick & Watkins, 1999).

If access to human resources is restricted, learning organization leaders may find advantages in hiring a chief learning officer (CLO) (Farrell, 2017; Willis, 1991). The CLO is

designed to use the power of a top-level executive as a way to incorporate and promote learning. Verna Willis (1991) spent her career researching systems theories and became increasingly interested in learning organizations following Senge's (1990) publication of *The Fifth Discipline*. Willis (1991) recognized the urgency in which organizations were trying to implement the disciplines of a learning organization and how the increase in learning began altering the way individuals behaved. The role of a CLO helps to address the "structural deficiencies and biases within organizations that relegated employee learning to a secondary role or afterthought" (Farrell, 2017, p. 381). Continuous monitoring, assessing, and revising of learning dimensions, although time consuming, are necessary to become a learning organization (Bui & Baruch, 2010; Watkins & Marsick, 1993b). Incorporating a CLO would allow leaders the freedom to focus on strategic management while relying on another individual to ensure that learning remains a priority and focus of the organization (Farrell, 2017).

Females in learning organizations. As the research on learning organizations expands, a focus on how gender relates to continuous learning has appeared in the literature (Alexiou, 2005; Gouthro, Taber & Brazil, 2006). Many characteristics of the learning organization theory addresses the needs of female employees and has the potential to increase a woman's effectiveness, both professionally and personally.

Historically females have had a greater difficulty in balancing work-life responsibilities compared to males (Alexiou, 2005). Household duties are still considered female-dominated tasks in most cultures, but despite the traditional roles, some women with educational and professional goals have overcome the domestic stereotypes and found success in corporate and private industry (Alexiou, 2005). Learning organizations can help distribute the daily pressures

felt by many female employees and make it possible for more women to excel professionally. Marsick and Watkins (1999) advocate that "organizations should seek to balance work and family life… and they should build a diverse workforce because fresh perspectives and multiple viewpoints produce better business decisions" (p. 5).

Specifically, in higher education, there are great benefits to female employees when their college or university becomes a learning organization. Ponnuswamy and Manohar (2014) conducted a mixed-methods study of women working in higher education to understand which dimensions of a learning organization cause women to feel more empowered in their work. Their results are described below, but a key finding in their research is that learning organization "culture has a considerable role in the knowledge and financial performance of the women staff in higher education institutions (Ponnuswamy & Manohar, 2014, pp. 103-104).

Of the 200 surveys distributed, 150 female faculty members and administrators returned completed instruments from 10 institutions spanning across India. For the qualitative portion, 30 women were selected to be interviewed because they had been nominated to attend the University Grants Commission program focused on developing women managers in higher education. Eighteen of the 30 women agreed to partake in the interview process (Ponnuswamy & Manohar, 2014). Data collected through the interviews provided richer clarifications, and at times contradictions, of the trends found in the quantitative questionnaire.

Survey results denoted that female employees feel adequately supported in the development of their individual skills and knowledge (Ponnuswamy & Manohar, 2014). Yet the interviews revealed that although personal mastery was encouraged, access to development opportunities often resulted in family conflicts and issues keeping a work-life balance that

seemed appropriate to the employee. There was also a feeling that their professional development was not always matched with financial compensation which acted as a de-motivator in some situations (Ponnuswamy & Manohar, 2014).

Promoting inquiry and dialogue and encouraging team learning are two dimensions measured through Marsick & Watkins' (1999) model that female participants perceived the most in their institutional environment. Throughout the interviews, participants frequently reported learning best through peer feedback, critical reflection, and group project activities. A few participants disclosed their fear of peer-evaluation because of their aversion to critical comments of their work (Ponnuswamy & Manohar, 2014).

Similarly, women shared fears with regards to the criterion of establishing systems to capture and share learning (Ponnuswamy & Manohar, 2014). Participants felt as though they may lose their competitive edge if they share their specialized knowledge with others. This becomes a greater concern when knowledge acquisition and expertise was linked with financial compensation (Ponnuswamy & Manohar, 2014). Participants shared that they understood a network of free-flowing information is beneficial but the risk of becoming disposable is too great to participate on a regular basis.

Female respondents agreed that effectively communicating goals and objects within the institution spurred higher performance both on the individual and organizational level (Ponnuswamy & Manohar, 2014, p. 99). A similar response was provided when asked how employees felt their organization was connected to its environment. Additionally, the women said they understood the importance of keeping up with industry and market standards. With the increased performance and expectations came higher demand on the employees' time which was

noted in many responses that the time constraint is too great for many women balancing responsibilities outside of the workplace (Ponnuswamy & Manohar, 2014).

Finally, the interviewees were asked about their organization providing strategic leadership opportunities for them to continue learning and developing. The overwhelming majority of women acknowledged their institution fosters an environment that is conducive to learning which increases their self-efficacy (Ponnuswamy & Manohar, 2014). Yet again, the concern of time and financial reward for taking part in these opportunities is a concern for many participants. One woman summarized, "the learning environment for self-improvement is not well formulated and hence my allocation of time for learning new subjects has taken a back seat" (Ponnuswamy & Manohar, 2014, p. 97).

Organizational culture plays a significant role in a women's development and performance. As females continue to play a larger role within higher education, it is imperative that organizations are structured in a way that encourages and cultivates the success of female employees. Learning organization dimensions and behaviors can be one avenue leaders can take to foster an environment where all employees can thrive.

Higher education. At a glance, institutions of higher education seem to poses the ideal blend of people and structure to make up a learning organization (Baráth, 2015; Marsick & Watkins, 1999; Prelipcean & Bejinaru, 2016; Tinto, 1997). Colleges and universities shape their mission around creating learning opportunities for students, alumni, and employees. Class times and workshops where inquiry and collaborative learning takes place are systematically scheduled across campus to be easily accessible (Tinto, 1997). Furthermore, curricula is specifically designed to empower students toward a shared vision of acquiring knowledge are just a few of

the core elements of American higher education (Marsick & Watkins, 1999; Senge, 1990). It seems apparent from the outward appearance that colleges and universities should fit the mold of a learning organization.

In recent years, higher education has been tasked with equipping students with the knowledge and skills needed to address problems and fill positions that do not currently exist (Baráth, 2015; Kareen, 2016; Senge, 2000). It was a challenge that tested an institution's ability to practice the dimensions and behaviors of a learning organization. Unfortunately, a few obstacles prevented many institutions from successfully accomplishing this task. Without a concept or model to follow, many institutions had difficulties creating learning objectives for these futuristic careers. Educators admit to the complexity of incorporating soft skills with the traditional pedagogy of higher education (Kareen, 2016). Although just one example of how higher education has been tested, the future will bring more opportunities for institutions to display their ability to continually learn and adapt.

Education must facilitate the acquisition of critical thinking, problem solving, systems thinking skills that will carry far beyond the graduation stage (Baráth, 2015). Similar to the progression of single-loop to double-loop learning, education expands beyond simple memorization. The continuous adaptation and improvement of both instructors and students is foundational to the construct of any college or university (Baráth, 2015; Prelipcean & Bejinaru, 2016). Unfortunately, the shifting view of higher education cannot breakthrough the tradition structures that resist change. Institutions straddle the line between "support[ing] a curriculum that teaches the importance of learning organizations, while at the same time struggling to become them" (Bak, 2012, p. 164).

Formalized education has developed into “one of the largest and most bureaucratic systems” with in the industrial society and often promotes individualistic actions that are contrary to the basic principles of a learning organization (Baráth, 2015, p. 1496). During an interview, Senge noted that the fragmented and stratified nature of an institution creates issues when attempting to integrate learning organization characteristics (O’Neil, 1995). Students, faculty, staff, and administration all have varying levels of power within each segment and yet they are supposed to feel equally empowered to create and implement change.

The structures in place make it difficult for individuals to feel they can affect change because there are so many tiers to influence. Another aspect of education that complicates a learning environment is that of scholarship. Institutions with employees focused on producing sponsored-research have an additional motivation to divert from the unified mission of the university (Bak, 2012). Bui and Baruch (2010) described their observations of research-focused faculty as an “eagerness to be individualistic” and the result of how individual networks within an institution can severely thwart efforts to incorporate learning organization dimensions (p. 234). These attitudes and behaviors are in direct conflict with the dimensions promoted by learning organizations.

Vincent Tinto (1997) writes about universities as learning organizations and acknowledges the obstacles presented by both the people and structure of an institution. Despite the hurdles, he concludes that “student learning is greatly enhanced when students participate in shared, collaborative learning experience, when they are active rather than passive in learning process, and when their discourse is wide ranging and interdisciplinary” (p. 2). Since his conclusion, scholars have continued to support Tinto’s opinion that institutions would greatly

benefit, both in the short and long-term, from adopting the dimensions of a learning organization (Bak, 2012; Bui & Baruch, 2011; Marsick & Watkins, 1999; O'Neil, 1995; Örtenblad & Koris, 2013; Prelipcean & Bejinaru, 2016; Redding & Catalanello, 1994; Senge, 2000)

As competition for students, prestige, and funding increases, institutions using the learning organization imperatives may have an upper hand (Örtenblad & Koris, 2013; Voolaid & Uhrlich, 2017). Employees of a learning organization feel more motivated and empowered to "acquire the knowledge and skills they need from many sources … and openly share their own knowledge and skills with others because they realize that they are all working toward achieving personal and professional goals" (Bui & Baruch, 2011, p. 516). In a true learning organization, knowledge is shared freely without consequence or apprehension. Similarly, when employees "facilitate progress and advancement in line with economic changes and technological development" they are helping the institution remain competitive in the changing environment (Bui & Baruch, 2011, p. 517).

Learning organization dimensions can boost production, improve services, and increase quality within higher education (Bui & Baruch, 2011; Marsick & Watkins, 1999). As institutions reap the benefits of becoming a learning organization, so will students and employees within the institution. Additionally, it only takes the implementation of just a few of the dimensions to see the positive impact (Boyce, 2003). Unlike other models that require a rigid protocol, the learning organization framework acknowledges the fluid nature of organizations and that the process of integrating the dimensions will take time (Marsick & Watkins, 1999). Mastery of all the principles is impossible and should never be the intention. The goal of becoming a learning

organization is to never stop progressing and show continued improvement at each level (Bui & Baruch, 2010; Watkins & Marsick, 1993b).

One of the most desirable benefits of becoming a learning organization is the increase in organizational performance (Ellinger, Ellinger, Yang, & Howton, 2002; Marsick & Watkins, 1999). Studies on manufacturing, distribution, production, business, technology, and education-based organizations continually show a positive correlation between learning organization principles and performance outcomes (Boyce, 2003; Clark, 1998; Ellinger et al., 2002; Hussein, Mohamad, Noordin & Ishak, 2014; Marsick & Watkins, 1999). In a study of learning organizations and organizational performance, Marsick and Watkins (1999) found that inquiry and dialogue and systems connection were the two dimensions that showed statistical significance in positively influencing performance. In a similar study, greater learning opportunities showed to have a significant impact on individual performance compared to that of the entire organization (Akhtar, Arif, Rubi, & Naveed, 2011).

Clark (1998) identified benefits of adopting learning organizational principles specifically for colleges and universities. The benefits include "a strengthened steering core, an expanded developmental periphery, a diversified funding base, a stimulated academic heartland, and an integrated entrepreneurial culture (p. 5). As a loosely coupled organization, higher education most often experiences success in making local change within a team or department. Those changes can experience the same benefits described by Clark but on a much smaller scale. Conversely, radical and transformational change across the entire campus allows the institution to undergo dramatic improvements in performance. Wide spread change also helps prevent many of the common pitfalls stagnant organizations encounter.

Tinto (1997) does not discount the obstacles higher education faces in attempting to transition into a learning organization but rather challenges educators in their dedication to the mission. He contests, “were we serious in our commitment to making our universities into learning organizations that consciously promote student learning, we would not accept the current organization of our work” (Tinto, 1997, p. 4)

Criticisms of learning organizations. The slow acceptance of learning organization dimensions and behaviors is not always unintentional. Since the popularization of the learning organization in the 1990s, scholars (Easterby-Smith, 1997; Örtenblad & Koris, 2013) have voiced their skepticism over this new managerial fad. Most offer critical reviews of the development, research, or lack thereof, and application. Some went so far as to suggest that the idea of learning organizations should be abandoned all together (Grieves, 2008). Although the amount of literature available critically analyzing learning organizations is limited and very few provide tangible critiques, the critiques available lift-up valuable questions and contradictions within the theory.

Another point of contention is the process used in developing learning organization theories. Argyris and Schön (1978), Senge (1990), and Pedler et al., (1991) incorporated comprehensive organizational learning and change theories in the creation of their respective theories but since then authors have produced theories and models based solely off of consultative experiences and lack a strong methodological backbone (Tsang, 1997). It is evident that learning organization dimensions were designed by and to aid practitioners in their attempt to build a learning organization. Critics argue that without systematic, rigorous research

supporting the theories, there should be cause for concern over the validity and generalizability of these practitioner-created theories (Sorge & Van Witteloostuijn, 2004).

It is wise to investigate an organization's motivation and expectation of becoming a learning organization before investing significant resources. Ideally, an organization would seek out the use of learning organization dimensions to promote and embed continuous learning within the environment and alternative motives should be questioned (Marsick & Watkin, 1999; Letizia, 2017). The reality is organizations often use these principles solely as a means to an end and show more concern for accomplishing a singular desired change rather than permanently improving the organizational climate (Easterby-Smith, 1997). This directly conflicts with the basic principle of learning organizations, which is to create continuous learning opportunities (Bui & Baruch, 2010; Garvin, 1993; Senge, 2000; Watkins & Marsick, 1993b, 1996).

Many critics link this hypocrisy to the relationship held between learning organizations and consulting firms (Porter, 1983). Organizations that have sought out consultants or management firms to assist in the process of becoming a learning organization are often seeking short-term change (Marsick & Watkins, 1999). Although these practitioners genuinely use learning organization dimensions to encourage change, they are not always concerned about the long-term implementations of the model (McClure, 2017; Tsang, 1997).

Another common criticism of learning organizations is the lack of clarity within the definitions and measurement tools within the framework (Örtenblad, 2002a; Tsang, 1997). Scholars question the number of stances taken on whom exactly does the learning and how learning is supposed to be measured and assessed (Örtenblad, 2002b). Definitions of learning organizations include generic phrases regarding continuous learning, knowledge, and outcomes

and the interpretation of these definitions can be varied based on the researcher. Even Argyris's (1990) original application of the theory states that a learning organization is "generic to all human organizations, including private and public organizations, trade unions, voluntary organizations, universities and schools, as well as families (p. 63). Further clarification on these points would help strengthen the theories and models regarding learning organizations.

Finally, critics address the assumption that individuals within an organization desire the behaviors and outcomes created by a learning organization. Specifically looking at Watkins and Marsick's (1993b, 1996) dimensions, is it right to force a collective vision onto every individual? If so, what does that mean for an individual that disagrees with the vision? The freedom to learn, discuss, and collaborate, while advantageous for some, may not play to the strengths or comforts of individual employees (Örtenblad, 2002b). Some employees prefer the structure and routine within an organization and have success despite the stagnant environment. These are aspects and characteristics of an organization that a practitioner should asses and consider before introducing learning organization dimensions.

Summary

Organizational change is a tedious, complex, and an altogether necessary aspect of managing an institution. The variety of theories and models available provides organizations the ability to find something that fits their unique qualities. For higher education, and specifically for this study, the learning organization framework developed by Watkins and Marsick (1993b, 1996) aligns with the current needs and challenges of colleges and universities. It is imperative that the practice of continuous learning floods out of the classrooms into the offices, meeting rooms, and spaces all across campus. The learning organization dimensions and behaviors can

make it possible for institutions to survive, and possibly even thrive, in this changing environment.

As an action focused framework, the learning organization is tied to tangible outcomes and oftentimes will result in improved performance. As higher education is increasingly held accountable for greater production, quality, and flexibility, the adoption of learning organization dimensions is necessary for future success. The research design and methodology of how this study will measure employee's perception of learning organization dimensions and behaviors has been included in Chapter 3.

Chapter 3: Methodology

Institutions of higher education have and will continue to adjust in how they meet market demands, improve quality and customer service, and establish financially stability. These adaptations will require the flexibility and nimbleness of individual employees as well as modifications to the overall organizational structure. The dimensions of a learning organization, when applied correctly, puts an institution in a position to successfully implement and sustain change.

Measuring the culture of an organization through the lens of the learning organization framework provides leaders with the ability to identify and work towards strengthening weak areas that are preventing or delaying change. Gall, Gall, and Borg (2007) describe the result of this type of educational research as information that assists in explaining, make predictions, describing, or suggesting improvements. For this study, the objective was to collect data that describes the current organizational climate and pinpoints specific areas or groups of people that perceive the greatest and least number of learning organization dimensions and behaviors.

An electronic questionnaire quantified the perceptions of the employees and answered three research questions regarding the college's symbiotic relationship with a learning organization. To assist college leadership in developing a long-term improvement plan and the successful implementation of a strategic plan, it was valuable to gain insight on the following questions.

Research Questions and Hypotheses

In effort to focus the research analysis and recommendations, three research questions and hypotheses were established for this study. Each was developed to provide insight that could

be translated into practitioner-based action items and improve the change process occurring at the institution. Analysis of the data reviewed in Chapter Four answers the research questions and confirms or denies the hypotheses.

1. To what extent do employees perceive the college to be a learning organization?

H1. The majority of employees will perceive the campus as a learning organization.

2. Which, if any, demographic variable has the greatest influence on an individual's perception of learning organization behaviors?

H2. Female employees will display a greater perception of learning behaviors within the college than males.

3. How are learning organization dimensions perceived by employees?

H3. The seven learning organization dimensions will report non-statistically different results among college employees.

Data collected through the questionnaire provided the descriptive statistics needed to analyze the hypotheses. Demographic information was gathered as additional questions built into the survey allowing for variables to be compared across employee populations. A section of data analysis later in Chapter Three highlights the specific analysis tools that were employed to test the hypotheses.

Sample

Non-probability sampling was the most effective technique for this study since the participants were selected specifically based on their employment with the institution. Targeting college employees provided reliable data concerning the campus climate and offered each employee the opportunity to anonymously share their feelings and perceptions. Purposive

sampling and case study methodologies can limit representativeness of a study's findings because of their narrow restrictions, but in the context of this study the advantages out weight the limitations. The data collected accurately describes the institution and participants and, although not completely generalizable, it is possible that trends found in this research will be true for other peer institutions.

Contact information for employees was accessed through the help of the human resource division. Both full-time and part-time employees were invited to participate. Part-time employees include assistant coaches, adjunct instructors, administrative support, facilities/ maintenance workers, and kitchen staff. Visiting professors are designated as the full-time employees. There were a number of employees that work remotely, meaning they may not directly interact with the campus on a regular basis, but they were also invited to complete the survey. It was valuable to include part-time and remote employees because although their experiences may vary from full-time residential employee it is an important perspective to include in the analysis.

The sample for this study was comprised of the 728 individuals employed at the college on the date in which the survey was distributed. It is more accurate to describe the sample as a census rather since all employees of the college were invited to participate. A census provides the greatest opportunity to measure accurate perceptions using data representative of all employees.

Of the 728 potential respondents, a total of 168 surveys were included in the data analysis portion of the study. Although 228 submissions were collected, only surveys that contained responses to more than half of the possible questionnaire items were kept for analysis. The

majority of the 168 respondents provided their position, employment length, and educational attainment, at 167, 166, and 165 respectively. Only 152 respondents of the 168 valid surveys provided their preferred gender. A full description of respondent demographics is included in Chapter 4.

Data Collection

A structured, Likert scale questionnaire was sent to each employee's work email address by the human resource division on the researcher's behalf. A link to the electronic version of the questionnaire was provided in the email as well as a description of the research project, a consent form, and contact information for the researcher. The questionnaire was hosted on Qualtrics, a leading research and data collection software. An email reminder was sent to employees midway through the data collection period to encourage a higher response rate. Reminders had to be sent to the entire employee list because since responses were stored anonymously it was impossible to identify who has already completed the survey. Data collection occurred for three weeks in May, May 10-May 31, 2018.

Confidentiality of the participant's identity and survey responses were integral to the success of this study. A confidentiality statement was provided for employees and questionnaires were only included in the data analysis if consent was provided by the respondent. Before beginning the survey, a statement explained that individual responses and identifying demographic information would not be disclosed to anyone except the researcher. The anonymity extended into the data analysis and reporting as well. If an analysis resulted in only a few respondents and respondents could be identified, that analysis will not be included in the results discussion. A strong emphasis on confidentiality was necessary for employees to feel

comfortable answering honestly and providing valid data. If employees felt their responses or identity would be shared with college leadership, the accuracy of the data would have been compromised.

Employees had the ability to complete the questionnaire at their leisure in the three-week window. Responses were self-reported and respondents were allowed to skip any question on the survey. Once submitted, questionnaires were deposited into a password-encrypted portal on a protected computer. The IP addresses for responses were not kept to help ensure complete confidentiality of the participants.

Respondent data and demographic information. The survey was distributed to the 728 employees of the college through a campus wide email distribution list. Human resources had updated the list recently to ensure that all currently employees received the survey. At the closing of the data collection period, 228 surveys had been submitted. Of these, 40 employees selected "yes" to giving consent to participate in the survey but then submitted the form without completing any other questions. It is unknown why these individuals did not complete more of the survey. Although the number of items on the survey was listed in the original email, it is possible respondents were interested in viewing the form before they completed it in its entirety. These surveys were removed from any data analysis.

Respondents were allowed to skip any questions they wished to not answer. To maintain a high level of data quality and consistency, the 20 surveys that contained responses to less than half of the questions were removed from data analysis. There were an additional 24 surveys missing responses, but of those, 21 were missing less than three responses from the 43-item questionnaire. These 24 surveys were kept and included in data analysis. Any calculation

requiring an average was adjusted to reflect the missing data points. After removing blank and incomplete surveys, 168 useable questionnaires remained out of 728 employees. This resulted in a 23.1% response rate. This response rate is comparable to other dissertations using the DLOQ in an educational setting (Benjamin, 2009; Krohn, 2010; Mulligan, 2014)

One employee sent a question via email to the human resource division in response to the original invitation email. The employee asked for clarification of the term "people" used within the survey as he/she was not clear if it meant strictly employees at the college or the greater community. That was the only question or comment received by the college that was passed along to the researcher.

As with the questionnaire items, demographic information was not mandated to submit the survey. Of the 168 valid surveys submitted, 167 respondents provided their current position of either faculty, staff, or administrator. Administrators made up the largest group of respondents (40.1%), followed by faculty (32.9%), and then staff (26.9%). These frequencies are displayed in Table 1.

Table 1

Descriptive Statistics of Respondent Demographic Information

Variable		Frequency	Percent
Position	Faculty	55	32.9
	Staff	45	26.9
	Administrator	67	40.1
	Total	167	100.0
Employment	Less than 1 year	11	6.6
	1-4 years	36	21.7
	5-9 years	32	19.3
	More than 10 years	87	52.4
	Total	166	100.0
Education	Diploma	27	16.4
	Bachelor's	50	30.3
	Master's	37	22.4
	Doctorate	51	30.9
	Total	165	100.0
Gender	Female	103	67.8
	Male	49	32.2
	Total	152	100.0

The second demographic question addressed the employee's length of service at the college. Employees who had been employed at the college 10 or more years (52.4%) led the number of responses submitted. Individuals who had been employed 5-9 years (19.3%), 1-4 years (21.7%), and less than 1 year (6.6%) comprised the remaining portion of the respondents. Two employees opted to not share their length of service.

The highest level of educational attainment for each employee was gathered as a part of the demographic questions. Of the 168 valid surveys, three individuals choose not to disclose their educational attainment. Employees with a doctorate or terminal degree (30.9%) and those with a bachelor's degree (30.3%) responded to the questionnaire at a similar rate. Those with a

master's degree (22.4%) and high school diploma or GED (16.4%) rounded out the remaining respondents.

The final demographic question asked respondents to provide their gender using a fill-in-the-blank format. Sixteen individuals either left the question blank or expressed their interest in remaining anonymous. Females (67.8%) made up over two-thirds of the respondents leaving males (32.2%) to make up the remaining portion of those whom responded. (see Table 1)

Instrumentation. The objective of this research was to describe the campus during a snap shot in time. To accomplish this task, a non-experimental, descriptive design was implemented to capture the perceptions of employees without influencing or manipulating the environment. Descriptive methodologies have an advantage collecting data that spurs future research or hypothesis, identifying specific variable of interest, and measuring attitudes, perceptions, and behaviors.

To complement the descriptive design and answer the research questions, the Dimensions of a Learning Organization Questionnaire developed by Karen Watkins and Victoria Marsick (1997) was recruited for this research. Similar to the descriptive method, the DLOQ measures an individual's, "perception of where things are at this time" (Watkins & Marsick, 1997, p. 2). The questionnaire features 43-items, or behaviors, evaluating the seven dimensions of a learning organization. It was designed to "measure the status of and changes in organizational learning practices and culture" (Marsick, 2013, p. 129). The seven dimensions of a learning organization identified by Marsick and Watkins (1999) include continuous learning, inquiry and dialogue, team learning, systems connection, empowerment, embedded systems, and provide leadership.

On record, the DLOQ has been translated into 14 languages, other than English, and validated in versions specific to for-profit, non-profit, governmental, public health, religious, and educational (K-12 and higher education) institutions. Specifically, in quantitative research, the validity of an instrument dramatically affects the quality of the research (Nunnally & Bernstein, 1994). This questionnaire has been validated in a variety of cultures and will maintain a high level of research quality (Basim et al., 2007; Hernandez & Watkins, 2003; Kim et al., 2015; Sharifirad, 2011; Song et al., 2009; Yang et al., 2004). Yang et al. (2004) adapted the full questionnaire into a 21-item short form, and a 7-item single construct instrument but the higher education specific version is available only in the 43-item questionnaire.

Ellinger et al., (2002) reviewed two versions of the DLOQ to measure their constructs. The chi-square test, Jöreskog and Sörbom's goodness of fit index, Bentler's comparative fit index, and Steiger's root mean square error of approximation were analyzed to compare the 43 and 21-item questionnaires. When comparing the data, the 21-item construct actually aligns more closely with the survey data than did the 43-item instrument. The reliability estimates did not decrease significantly with the reduced set of items. Although Ellinger et al., (2002) found advantages to the 21-item survey in a business setting, its benefits may not translate into an educational setting. For this reason, the 43-item construct that was specifically designed for higher education will be used for this study.

The full questionnaire designed for higher education has questions specific to the people and structures commonly found in education. The extensive testing for validity, comprehensiveness of the survey, and profession-specific nature of the questionnaire makes it the best selection out of the available instruments. One of the ways the questionnaire specifically

addresses higher education is by categorizing the seven dimensions into three distinct levels: individual, department, and college. These levels more closely describe the organizational structure of colleges and universities compared to a traditional corporate model.

The application of the DLOQ across the entire campus will help fill a void in the research. Yang et al., (2004) identified that the majority of studies incorporating the DLOQ only focus on senior or middle-level managers and that very little data exists using perceptions of entry-level employees. Distributing the questionnaire to all employees welcomed responses from that missing segment and could provide insight to a population that has traditionally been passed over.

A six-point Likert scale measured responses ranging from Almost Never (1) to Almost Always (6). Participants were encouraged to answer honestly with a response that matches their current perception of the environment. Each question is voluntary and can be left unanswered if the participants chooses. Following the 43-items will be four demographic questions regarding the employee's role, gender, highest educational degree attained, and length of tenure. These questions helped to address the second research question during data analysis. A sample of the questionnaire along with the supporting demographic questions are included in Appendix D.

The four demographic questions played a valuable role in the data analysis portion of the study. Bak (2012) found a discrepancy between the perceptions of respondents based on their role, i.e., academic versus administrative, and on their length of tenure with the institution, which is why both have been included in this study. Senge (1990) discussed the idea of continuous learning as an important characteristic of individuals associated with learning organizations. Although measuring a commitment to continuous learning is not easily accomplished, using

respondents' level of formal education is one commonly accepted way to identify learning patterns. Finally, the gender of the participants was analyzed to decipher potential variance in employee perceptions since Alexiou's (2005) research promotes the notion that women experience learning organizations differently than males. Below is listed each question as it appeared in the questionnaire.

1. What is your current position? Faculty, staff, or administrator
2. How long have you been employed with [the College]? Less than 1 year, 1-4 years, 5-9 years, or 10 or more years
3. What is your highest degree attained? Diploma/GED, bachelors, masters, doctorate/terminal
4. What is your gender? (fill in the blank)

Data Analysis

Data collected through Qualtrics was transferred to and analyzed using IBM SPSS 25 gradpack. The data were coded and properly organized for analysis within SPSS. Surveys that did not meet a certain standard were removed to maintain high data quality. Normality of the data was assessed using many of the traditional measures including: skewness, kurtosis, normal Q-Q plots, histograms, and Kolmogorov-Smirnov statistics. Additionally, Cronbach's alpha coefficients were calculated to monitor internal consistency of the data.

All of the research questions required basic descriptive statistics including mean, standard deviation, range, standard error, and sample size. The analysis began by calculating the descriptive statistics of the respondents based on the demographic information provided on the

survey. This data provided a simple explanation of what types of employees responded at general trends of the data.

Research question one simply relied on descriptive statistics, specifically mean scores, to evaluate employee perceptions. Question two is more intricate and required the use of descriptive statistics, one-way analysis of variance (ANOVA) tests, Tukey HSD post hoc analyses, and two-way ANOVAs. These tests allowed for differences between variables to be measured and to identify between group variance. Incorporating ANOVAs adds strength to the analysis because one-way ANOVAs "compare[s] the variance *between* the different groups with the variability *within* each of the groups" (Pallant, 2016, p. 225). Each of the demographic variables are comprised of at least two groups so the ability to compared employees in this manner will provide beneficial and practical insight.

The third research question calculated descriptive statistics to analyze each item of the DLOQ scale and perception of specific learning organization dimensions. One-way ANOVAs and Tukey HSD post hoc tests were helpful in identifying demographic group differences. Additionally, the use of Pearson's and Spearman's correlation coefficients gave access to the position and strength of relationships between variables.

Validity and reliability. The DLOQ is a widely recognized, tested, and proven instrument. Many scholars have used confirmatory factor analysis (CFA) to determine the construct validity of the DLOQ within their own research. This is a complex technique that can be used "to test (confirm) specific hypotheses or theories concerning the structure underlying a set of variables" (Pallant, 2016). Yang et al. (2004) detailed their successful examination of validity and noted that the CFA test "was appropriate because it examined whether the proposed

dimensions of the learning organization had some attributes that could provide organization interpretations of learning behaviors" (pp. 37-38).

Yang (2005) found CFA values ranging from .82 to .93 for the seven learning organization dimensions. The authors of the theory and instrument were relentless in ensuring the consistency of the DLOQ. Items were meticulously adjusted until scales of all seven dimensions were statistically accurate in accurately measuring and recording consistent results using the instrument (Marsick & Watkins, 2003). Since the instrument has been through rigorous examinations using CFA, this study will not replicate the process, but rather rely on the experts whom have already confirmed the DLOQ's validity (Ellinger, et al., 2002; Watkins & Marsick, 2003; Yang, 2003; Yang et al., 2004).

A common test used to assess internal reliability within a quantitative instrument is Cronbach's alpha coefficient. These alpha coefficients will range from 0, indicating no internal reliability, to 1, which suggests perfect reliability within the data (Pullant, 2016). Past studies found alpha coefficients well above .80 and .90 supporting the reliable use of the DLOQ (Yang, 2003; Yang et al., 2004). Most values for the dimensions met or surpassed .8, which is preferable in quantitative analysis, while the full DLOQ scale scored above .9 (Pallant, 2016). This analysis was completed using the data collected and is discussed in Chapter 4.

Yang et al. (2004) completed a Jörgeskog and Sörbom's goodness-of-fit index (GFI) and root mean square error of approximation (RMSEA) to ensure that variance could be accurately explained through the instrument. The analysis found a GFI of .90, meaning 90% of variance could be explained through the model, and RMSEAs all under .80 suggesting the instrument is an appropriate measurement tool (Yang, et al., 2004).

As discussed earlier, the reliability and validity of the DLOQ has been rigorously tested and extensively documented (Ellinger, et al., 2002; Watkins & Marsick, 2003; Yang, 2003; Yang et al., 2004) The surveys use and validation in over a dozen different languages and successful implementation across global organizations makes it a strong choice for this research.

Delimitations

It was vital to ensure that participants felt they would remain anonymous throughout the research process. Self-reporting research, such as this, relies heavily on participants' decision to be honest and accurate in their responses. The truthfulness of a participant's recollection and accuracy of their perceptions heavily influence the validity of the data (Punch, 2014). The demographics of the employees who choose to respond also limits the analysis and implications of the data.

Another delimitation of this study is the use of a census rather than a sample. This limits the research in two ways. First, it is not truly representative of the entire employee population because not all employees responded to the survey. Second, the data cannot be evaluated probabilistically which limits the ability to analyze.

Biases

Employing a self-reporting data collection method allowed for the possibility of some error or bias. Participants had the ability to manipulate their responses based upon their perception of the study or desire to be portrayed in a certain way. This could have resulted in inaccurate data collected and no way to decipher it during analysis. To encourage participants to provide truthful answers, confidentiality notices were frequently included throughout the

process. If participants believed their identity would remain confidential, it is possible to have reduced the amount of manipulated data.

Another factor that might have influenced the way participants respond to the questionnaire revolved around the period in which the data was collected. Data collection occurred in May and conflicted with the end of the college's academic year. This can be a stressful time for employees and had the potential to skew their perceptions of the institution because of the seasonal increase in stress and responsibilities.

The researcher bias must be acknowledged and properly managed. At one point, the researcher was employed at the institution at the focus of this study and has maintained several professional relationships with current employees. The researcher's intimate knowledge of the college and its employees remained separate from the data collection and analysis phase. The prior knowledge was not be used to infer knowledge or assumptions throughout the analysis. A strong methodologically process assisted in removing as much researcher bias as possible.

Institutional Review Board

This study adhered to the Institutional Review Board (IRB) protocol. A complete and signed application form, certificate of IRB training, copy of the data collection instruments, and consent forms has been submitted to the Office of Research and Sponsored Programs. This process will be guided and supervised by a faculty advisor and a copy of the IRB approval is listed in Appendix C.

Obtaining informed consent from each participant was necessary to collect and analyze the data. A consent form and research description was available to all participants at the

beginning of the electronic survey as well as provided upon request. Consent had to be provided in order to submit the questionnaire for data analysis.

Timeline

Timeliness played a vital role in this study as the college's academic year concluded at the end of May. It was necessary to have the questionnaire sent to employees prior to this date as many faculty members do not return to campus or regularly check work email until the fall. After receiving approval from the IRB, electronic surveys were distributed and collected from May 10-May 31, 2018. Data analyses took place in June and July of the same year.

Summary

Foundationally, higher education is based on continuous learning. From the overarching mission to the day-to-day procedures, colleges and universities are aligned to promote learning on an individual, department, and college level. That description matches the dimensions of learning organization and builds the case for why higher education should strive to follow the framework. This study sought to identify if an institution that had publicly committed to change through the creation of a strategic plan does indeed embody the dimensions and behaviors of a learning organization. Chapter Three described the quantitative methodology selected to evaluate the relationship between the college and a learning organization and Chapter 4 examined and discussed the results of the analysis.

Chapter 4: Results

Incorporating learning behaviors has become a distinguishing characteristic of successful organizations. As stated in the research problem, over 400 institutions were unable to award financial aid in the 2016-17 academic year (Ginder et al., 2017) as compared to the prior year and Moody predicted that the number of closures and mergers within higher education would triple in upcoming years (Woodhouse, 2015). These statistics combined with the increased competition for students and rising cost of education should be enough to alert higher education leaders that it is time for change. Incorporating learning behaviors across college and university campuses is one strategy institutions can implement to be more competitive in the market.

In order to assess the current culture of a private liberal arts college, the DLOQ was distributed to all employees within the organization. This 43-item survey, along with additional demographic questions, was used to answer three research questions that would assist the college leadership in their quest to become a learning organization. The first question addressed the extent to which employees perceived the college as a learning organization. The second sought to identify if gender, or the other three demographic variables, significantly influenced an employee's perception of learning behaviors on campus. Finally, the third research question inquired how employees perceived the seven learning dimensions outlined by the learning organization framework.

Chapter 4 begins by reviewing the descriptive statistics of employees who responded to the survey and discussed why some surveys were not included in the data analysis. The validity and reliability of the instrument were reviewed to ensure that the tool adequately fit the study and provided trustworthy analytics. The results of the analysis were then shared as they relate to the

research questions and hypotheses. Included with each question are the statistical tests that were used to conduct the analysis. To conclude, a synthesis of all the results are listed as key findings of the study. Data requiring a table or chart was either displayed within the text or as an appendix.

Distribution of Data

Prior to analyzing the results of the survey, normal distribution within the data set was confirmed as assumed by several of the subsequent analyses. There are several ways to identify normality, one of which is to review the skewness and kurtosis values. Both results were found to be acceptable in the full DLOQ scale at the -.292 and .013 level, respectively. Regardless, skewness often does not have a substantial influence during analysis with large sample sizes (Pallant, 2016). The Kolmogorov-Smirnov statistic is another way to assess normality. The full DLOQ scale had a value of $p = .20$, which indicates a normal distribution because it is greater than a $p = .05$ value. Additionally, the Normal Q-Q Plot and Histogram of the full-scale responses displays a reasonably normal data set. (See Appendix A for normality charts.) One outlier was discovered using the boxplot chart but the data set was retained for analysis because it did not fall outside of three *SD* from the mean and the data were presumably valid.

Supplementary tests were conducted to confirm internal consistency. The Cronbach's Alpha value was first calculated for the full DLOQ scale. Pallant (2016) suggests that values above .7 are acceptable; however, it is ideal to find values .8 and above. The Cronbach's Alpha value for the DLOQ scale was .94, which suggests high internal reliability. The seven dimensions hold alpha's ranging from .713-8.61 indicating a strong reliability within the data. Alpha coefficients for each dimension can be found in Table 2. With normality and consistency

established, it was possible to continue the analysis in order to answer the research questions guiding the study.

Table 2

Results of Cronbach Alphas for Learning Dimensions

Variable	Cronbach's alpha	Number of Items
Continuous Learning	.790	7
Inquiry and Dialogue	.797	6
Team Learning	.789	6
Establishing Systems	.713	6
Empowerment	.849	6
Systems Connection	.845	6
Provide Leadership	.861	6
Full DLOQ Scale	.940	43

Research Question Results

The instrument had proved to be a valid and reliable tool in measuring learning organization behaviors within the college environment. The next section investigated each research question using statistical analyses to evaluate the DLOQ responses, respondent demographic information, individual learning levels, and the seven dimensions that make up the learning organization theory.

College perception. The first research question sought to determine the extent to which employees perceive the college as a learning organization. According to the hypothesis, the majority of employees do perceive the college to be a learning organization highlighted by the behaviors and dimensions within the theory. Descriptive statistics of the full DLOQ scale responses and the three learning levels (individual, department and college) were used to

investigate employee perceptions. Responses were collected on a six-point Likert scale ranging from Almost Never (1) to Almost Always (6).

Watkins and Marsick (1993) acknowledge that it is not possible to simply achieve a learning organization status because it is not a stagnant position. An organization can shift depending on the month, week or even by the day. Generally, these scores are used as a benchmark for future development. There are a handful of higher education studies which incorporate the DLOQ, but each look at international institutions (Cura, 2016; Rus et al., 2014; Voolaid & Ehrlich, 2017) which is not ideal to use as a comparison for an American college. Due to the lack of peer data and no other benchmarking data available, this study will adapt the scale mid-point, $M > 3.50$, as the indication that an employee positively perceives the behavior. In regard to the research question, an aggregate mean greater than 3.50 would suggest the college does model learning organization dimensions and behaviors.

Using only the 168 valid surveys, the mean score of the full DLOQ scale responses ($M = 3.39$, $SD = .77$) fell below the mid-point, rejecting the original hypothesis that presumed the majority of employees would report the college to be a learning organization. There was a non-significant difference found between the mean and the 5% Trimmed Mean ($M = 3.40$). A stem and leaf plot (see Appendix B) revealed that 87 individuals reported a DLOQ mean below 3.50 while 81 respondents reported a 3.50 or greater mean score.

The range of scores was 4.28, spanning from 1.16-5.44 on a six-point scale. The large gap between respondents' scores point out that there are employees who feel strongly that the college either is or is not a learning organization. Polarizing data, such as this, does not allow for many generalizations to be made of the population because there will typically be an outlier. The

respondent(s) who reported a 1.16 will very rarely agree with the perceptions of the 5.44 individual(s). Overall, the average mean score revealed that, even though some employees believe the college to be a learning organization, the greater majority of employees do not agree.

These results indicate that employees do not believe the seven dimensions of continuous learning, inquiry and dialogue, team learning, establishing systems, empowerment, systems connection, and provide leadership are regularly present on campus. The lack of this perception means the employees and organization do not experience the numerous benefits associated with learning organizations. For an organization attempting to promote sustainable change, this is not an encouraging finding.

The data were then segmented into the three learning levels as defined by Watkins and Marsick (1999). Employees perceived learning behaviors at an individual level (M = 3.29, *SD* = .81) less than what was reported at any other level. Although, the perception did not increase significantly when employees were asked questions about learning behaviors at the departmental level (M = 3.33, *SD* = .76). It was at the college level (M = 3.46, *SD* = .85) that employees perceived the greatest presence of learning organization dimensions and behaviors. Segmenting DLOQ responses by the three learning levels did not alter the original findings that employees do not perceive the college to be a learning organizations. Table 3 displays the descriptive statistics for the entire scale as well as the three learning levels.

Table 3

Descriptive Statistics for Learning Organization Levels

Learning Level	*N*	Minimum	Maximum	M	*SD*
Individual	168	1.00	5.23	3.29	.81
Department	168	1.17	5.17	3.33	.76
College	168	1.08	5.63	3.46	.85
Full DLOQ Scale	168	1.16	5.44	3.39	.77

Because employees responded with mean scores below 3.50 on each of the three learning levels, which are similar results to that of the full scale mean score, it can be confirmed that employees do not believe learning behaviors are commonly present at the college. The lack of learning organization behaviors should be alarming to college leadership as they attempt to implement change. Without the majority of employees perceiving learning behaviors on campus, it is not as likely that change will be successful or sustainable

Demographic influence. Research question number two examined the influence demographics had on an employee's perception of learning behaviors. The four demographic variables collected include employee position, length of employment, highest degree of educational attained, and gender. To analyze the variance within each of the four demographic variables, one-way ANOVA tests were conducted to compare each variable with their respective full scale mean scores. Post-hoc tests provided greater detail concerning the between group differences of each demographic variable.

The hypothesis for the second research question speculated that female employees would perceive learning organization behaviors and dimensions at a higher rate than their male counterparts would. As shown in Table 4, 103 of the 152 respondents who provided their gender were female. After analysis, no statistically significant variance between male (M = 3.29, *SD* =

.84) and female (M = 3.51, *SD* = .72) employees was found when comparing the full DLOQ scale scores. Without evidence of significant variance between employees based on gender, the hypothesis was rejected.

Table 4

Descriptive Statistics for Full DLOQ Scale by Respondent Demographic

		N	Minimum	Maximum	M	*SD*
Gender	Male	49	1.51	5.44	3.29	.84
	Female	103	1.16	5.09	3.51	.72
Position	Faculty	55	1.16	4.86	3.25	.88
	Staff	45	1.79	5.09	3.31	.75
	Administrator	67	1.51	5.44	3.56	.67
Education	Diploma	27	2.09	4.74	3.29	.73
	Bachelor's	50	1.51	5.44	3.59	.74
	Master's	37	1.95	5.12	3.57	.61
	Doctorate	51	1.16	4.86	3.15	.86
Employment	Less than 1 year	11	2.72	5.44	3.88	.79
	1-4 years	36	1.51	5.09	3.54	.65
	5-9 years	32	1.77	4.59	3.27	.77
	More than 10 years	87	1.16	5.12	3.30	.80

Employees' position within the college was reviewed to determine its relationship with learning behavior perceptions. While conducting a one-way ANOVA there was a violation of homogeneity found according to Levene's statistic of $F(2, 164) = 3.46$, $p = .03$. After further investigation and consulting the Brown-Forsythe test $F(2, 144) = 2.73$, $p = .06$ it was determined that an equality of means was present allowing the analysis using a one-way ANOVA to continue.

The ANOVA results did not find a statistically significant difference ($p = .64$) between the faculty (M = 3.25, *SD* = .88), staff (M = 3.31, *SD* = .75), and administrators (M = 3.56, *SD* =

.67) at the college. The most variance between employee positions was found between the faculty and administrators (p = .07). It appeared that administrators were most likely to believe the college operated as a learning organization. This cannot be inferred about staff members and faculty as their scores were lower than the median threshold. For this study, staff members were defined as those who are paid based on an hourly rate rather than salaried. Faculty members reported the lowest perception of learning characteristics compared to their peers.

Employees were grouped by highest degree attained (diploma, bachelor's, master's, doctorate/terminal) to explore if educational attainment influences the perception of learning organization behaviors. Levene's statistic found homogeneity of variances within the data set. Statistical significance at the p < .05 level was discovered between several of the education groups (see Table 5). Calculating the eta squared assisted in finding the effect size, which was moderate at .06, meaning 6% of the variance could be attributed to an employee's education.

Table 5

One-way ANOVA for DLOQ and Educational Attainment

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.403	3	2.134	3.769	.012*
Within Groups	91.185	161	.566		
Total	97.588	164			

* Significant at the 0.05 level

Post-hoc comparisons using the Tukey HSD test indicated that the greatest variance (p = .02) was found between employees holding a bachelor's (M = 3.59, *SD* = .74) and those with a doctorate or terminal degree (M = 3.15, *SD* = .86). Additionally, a significant difference (p = .05) was also revealed between employees with a master's degree (M = 3.57, *SD* = .61) and

those with a doctoral or terminal degree. Further analysis between these groups was conducted and is listed below under Question Three (see Table 6).

Nearly a 0.50 mean score difference was found between the respondents with a doctorate and those with a bachelor's or master's degree. Although not to significant level, employees with a diploma also showed almost a 0.40 mean score difference with those with a bachelor's and master's degree. Doctoral holding employees stood out as the employee group that was least likely to associate learning behaviors with the college. These findings contradict the perceptions reported by employees with a bachelor's or master's degree. Those two employee populations did believe the college operated as a learning organization. Interestingly, the remaining employee population, staff, sided with the view of employees with doctorates as they also did not agree the college should be considered a learning organization.

Greater discussion and speculation on this divide has been documented later in this chapter under Key Finding #4. The variance between and within the employee groups could be an indication of the campus climate as well as areas of focus moving forward. It was clear in the analysis that employees with a doctorate, and to some degree high school diploma, hold a lower perception of learning behaviors and could negatively influence their peers and organization.

Table 6

Tukey HSD Comparison of DLOQ with Educational Attainment

Variable		Mean Difference	S. E.	Sig.
Diploma	Bachelor's	-.36681	.18547	.201
	Master's	-.38015	.19656	.218
	Doctorate	.08381	.18483	.969
Bachelor's	Diploma	.36681	.18547	.201
	Master's	-.01334	.16841	1.000
	Doctorate	.45061*	.15455	.021
Master's	Diploma	.38015	.19656	.218
	Bachelor's	.01334	.16841	1.000
	Doctorate	.46396*	.16770	.032
Doctorate	Diploma	-.08381	.18483	.969
	Bachelor's	-.45061*	.15455	.021
	Master's	-.46396*	.16770	.032

*Significant at the 0.05 level

Length of employment was the final variable analyzed in regard to the full-scale scores. These data did not violate the homogeneity of variance assumption found by Levene's test for homogeneity of variances: $F(3, 162) = 1.2$, $p = .31$. Results from the one-way ANOVA reported a non-statistically significant value ($p = .056$) between the groups of employment length. Table 4 also displays the full DLOQ scale mean scores broken down by the length of employment groups. Employees that have been employed with the college between 5-9 years reported the lowest score ($M = 3.27$, $SD = .77$) while individuals employed with the college for less than 1 year ($M = 3.88$, $SD = .79$) responded the highest scores of the employment groups. These data do not support the notion that an employee's length of service plays an influential role in the perception of learning behaviors on campus.

It was important to analyze the full-scale scores by employment length to identify a possible point in time when employees alter their perception of the college, allowing leadership to proactively engage with employees before a negative shift takes place. The data support the most significant decrease in the perception of learning behaviors happens in the first four years of employment. Those who are new to the college, less than one year, reported high scores of learning behaviors but as years of employment increased, DLOQ scores decreased. This is only contradicted by employees with 10 or more years at the college who reported a slight increase compared to the nearest employment group of 5-9 years.

Results indicate that leadership should consider implementing a program targeting employees in their early stages of tenure with the college as that is when their perceptions are highest. Perhaps these new employees could help identify what specific actions or events cause them to perceive learning behaviors the most and the college could invest more into those activities.

Two-way ANOVAS with additional post-hoc analyses were used to investigate how two demographic variables interacted with the perception of learning behaviors. Since the only variable with statistical significance was that of educational attainment, analysis began by comparing education levels with the other three variables. No significant interaction effect findings were made when comparing the variables in that manner. However, a significant main effect ($p = .004$) concurred with the one-way ANOVA results that indicated differences between the educational attainment groups. These findings support that holding a doctoral or terminal degree lowers perceptions of learning organization behaviors while employees with a bachelor's degree are more likely to perceive the presence of learning behaviors on campus.

Demographic variables were compared with the three levels of learning organizations: individual, department, and college. A one-way ANOVA compared the means of the two data points to examine if an employees' position influenced their perception of learning organization behaviors at the various learning levels. Post hoc analysis found that faculty (M = 3.13, *SD* = .89) perceived significantly fewer (p = .043) learning behaviors at the individual level than did administrators (M = 3.49, *SD* = .70). A significant variance was also found at the department level (p = .032) between faculty (M = 3.15, *SD* = .83) and administrators (M = 3.50, *SD* = .70). No statistical differences between employee positions were found at the college level (see Table 7).

A strength of the Watkins and Marsick's (1999) Learning Organization theory is its ability to address and distinguish that learning looks different for an individual employee, a group of employees working collectively, and what takes place across the entire college campus. In this analysis, faculty members disagree that learning behaviors take place at any of the three levels, whereas administrators perceive continual learning at the individual, department, and college level. Surprisingly enough, all three employee groups agreed that the fewest learning behaviors were found within individual employees and the greatest at the college level. This is surprising because what these results suggest is that separately employees are not continuously learning but as employees come together at the department and college level, continuous learning behaviors increase.

Table 7

Descriptive Statistics for Learning Levels by Demographics

		Individual Level		Department Level		College Level	
Variable		M	*SD*	M	*SD*	M	*SD*
Gender	Male	3.25	.86	3.23	.83	3.33	.91
	Female	3.41	.74	3.40	.73	3.59	.81
Position	Faculty	3.13	.89	3.15	.83	3.34	1.01
	Staff	3.21	.83	3.28	.74	3.38	.81
	Administrator	3.49	.70	3.50	.70	3.62	.72
Education	Diploma	3.14	.72	3.19	.79	3.40	.80
	Bachelor's	3.51	.75	3.57	.77	3.64	.80
	Master's	3.52	.68	3.48	.56	3.63	.67
	Doctorate	3.06	.89	3.06	.80	3.23	.98
Employment	Less than 1 year	3.71	.88	3.70	.75	4.01	.78
	1-4 years	3.42	.71	3.42	.76	3.64	.70
	5-9 years	3.16	.78	3.30	.78	3.33	.83
	More than 10 years	3.24	.85	3.24	.76	3.36	.90

One-way ANOVAs reported that length of employment did not influence employee perception at the individual or department level. A statistically significant ($p = .04$) value was found between groups of employees at the college level, but post-hoc analysis revealed the difference between employees of less than 1 year ($M = 4.01$, $SD = .78$) and employees of more than 10 years ($M = 3.36$, $SD = .90$) was ultimately not a significant finding ($p = .075$). Similar to what was discovered when analyzing the full-scale scores, new employees displayed the highest scores at all three levels and each employee group agreed that learning behaviors are most present at the college level.

Educational attainment played significant role in influencing learning organization perceptions at the individual level ($p = .007$). Employees with a doctorate or terminal degree

(M = 3.06, *SD* = .89) perceived learning organization behaviors significantly less (p = .021 & p = .032, respectively) than their peers with a bachelor's degree (M = 3.51, *SD* = .75) or master's degree (M = 3.52, *SD* = .68). Employees holding a high school diploma or GED scored similarly, although not to a level of significance, to employees with a doctorate at the individual level.

The breakdown of educational attainment by learning levels support the same findings as the full-scale results. Employees with doctorates average the lowest perception of learning behaviors when compared to their colleagues. Employees with bachelor's and master's degrees scored significantly higher scores at each of the three learning levels.

Comparable results were found at the department level with the most significant mean difference (p = .003) between employees with a doctorate (M = 3.06, *SD* = .80) and employees with a bachelor's degree (M = 3.57, *SD* = .77). Results of the initial comparison between educational attainment and college level mean scores indicated a significant difference, but post-hoc tests suggested the differences did not reach a statistically significant value (see Table 8).

Table 8

One-way ANOVA Comparing Learning Levels and Educational Attainment

Learning Level		Sum of Squares	df	Mean Square	F	Sig.
Individual	Between Groups	7.636	3	2.545	4.221	.007**
	Within Groups	97.095	161	.603		
	Total	104.731	164			
Department	Between Groups	7.946	3	2.649	4.805	.003**
	Within Groups	88.749	161	.551		
	Total	96.695	164			

**Significant at the p < 0.01 level

When comparing gender and the three learning levels, no statistically significant findings were made at the individual (p = .258), department (p = .189), or college (p = .077) level. Table 7 displays the mean scores between male and female respondents at each of the three levels. Although the learning level scores by gender did not differ significantly, the majority fell below the mid-point indicating that neither male nor female employees believed learning behaviors to be present at the individual, department, or college level. Female employees did include one exception in their responses, which was that they did believe continuous learning was present at the college level. This aligns with other findings that indicate the college level holds the greatest likeness to a learning organization.

Differentiation by dimensions. The final research question asked how college employees perceived the seven dimensions within the college campus. Each dimension is derived from six or seven questions on the 43-item DLOQ. Analysis began by calculating mean scores for each dimension. Aligning with research question one, respondents with a mean score of 3.50 and above were considered to be in agreeance that the college is a learning organization. Conversely, responses below that mid-point indicated that employees do not believe learning behaviors are frequently present on campus.

Descriptive statistics on each of the seven dimensions were calculated and are displayed in Table 9. Of the seven dimensions, only two achieved a mean score above the mid-point, indicating that employees do not perceive that the college frequently practices learning organization dimensions. Employees believed that the college has established systems to capture and share learning (M = 3.67, *SD* = .94) and provided strategic leadership for learning (M = 3.59, *SD* = 1.02). The remaining five dimensions held mean scores below the 3.50 mid-point meaning

employees did not perceive these behaviors on a regular basis. The lowest of all dimensions was the college's ability to connect the organization to its environment (M = 3.11, *SD* = .85).

Table 9 also displays additional statistics such as the minimum and maximum scores recorded by respondents. These points indicate that in five of the seven dimensions, at least one employee indicated that each action described in the set of questions "Almost Never" occur. These scores significantly alter the average mean scores and suggest there are employees who reject the notion that the college is a learning organization. Another statistic listed in Table 9 is standard deviation. Analysis indicated that employees aligned most closely with their perceptions of team learning and varied most greatly, or disagreed, in their reported scores on provide leadership.

Table 9

Descriptive Statistics for Learning Organization Dimensions

Variable	N	Minimum	Maximum	M	*SD*
Continuous Learning	168	1.00	5.29	3.28	.83
Inquiry and Dialogue	168	1.00	5.50	3.31	.92
Team Learning	168	1.17	5.17	3.33	.76
Establish Systems	168	1.00	5.75	3.11	.85
Empowerment	168	1.00	5.67	3.45	.99
Systems Connection	168	1.17	6.00	3.67	.94
Provide Leadership	168	1.00	5.83	3.59	1.02
Full DLOQ Scale	168	1.16	5.44	3.39	.77

The first dimension is described by the act of creating continuous learning opportunities within an organization. Seven questions correlate with this dimension and have been listed below in Table 10 along with the descriptive statistics. The behavior least perceived by employees was that "people are rewarded for learning" (M = 2.92, *SD* = 1.13). Conversely, employees highly agreed that "people help each other learn" (M = 4.17, *SD* = 1.20) within the college. The

behavior receiving the most wide-ranging responses was that "people help each other learn". This question received, by far, the greatest number of "Almost Always" responses at 22 compared to the other questions at 3, 3, 3, 5, 5, and 1, respectively.

One of the benefits of the DLOQ is the ability to identify specific behaviors or actions that employees either agree or disagree as being true of their institution. It should be encouraging for college leadership to know that employees frequently help each other learn, which fosters a culture of team work and selflessness. Conversely, leadership should work to address the perception, or perhaps reality, that employees are not rewarded for learning.

Table 10

Responses to Learning Organization Dimension: Continuous Learning

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
In my college…		[1]	[2]	[3]	[4]	[5]	[6]		
people opening discuss their own mistakes in order to learn from them	168	11	43	55	42	14	3	3.08	1.12
		6.5	25.6	32.7	25.0	8.3	1.8		
people identify skills they need for future work tasks	168	7	18	54	66	20	3	3.49	1.03
		4.2	10.7	32.1	39.3	11.9	1.8		
people help each other learn	168	5	11	25	59	46	22	4.17	1.20
		3.0	6.5	14.9	35.1	27.4	13.1		
people can get money and other resources to support their learning	168	16	42	49	48	10	3	3.02	1.15
		9.5	25.0	29.2	28.6	6.0	1.8		
people are given time to support learning	167	13	45	49	36	19	5	3.11	1.23
		7.8	26.9	29.3	21.6	11.4	3.0		
people view problems in their work as an opportunity to learn	168	14	37	48	52	12	5	3.15	1.18
		8.3	22.0	28.6	31.0	7.1	3.0		
people are rewarded for learning	167	20	40	55	39	12	1	2.92	1.13
		12.0	24.0	32.9	23.4	7.2	.6		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

Promoting inquiry and dialogue is the second dimension of learning organizations. The range of mean scores were more varied for this dimension than in the first. Respondents identified that "people are encouraged to ask 'why' regardless of rank" (M = 3.04, *SD* = 1.25) was the least perceived behavior and the most prevalent behavior was that "people treat each other with respect" (M = 3.95, *SD* = 1.26) at the college (see Table 11). The variance is shown through the larger standard deviations. This means employees are less aligned in their perception of inquiry and dialogue within the college. For example, "people treat each other with respect" scored the highest of all behaviors in this dimension, but with a standard deviation of 1.26 that indicates that some employees recorded scores more than one point lower than the average. This dissonance between employees may indicate inconsistent communication or differing experiences between the employee populations.

Several of the inquiry and dialogue behaviors that dealt with building or maintaining relationships with their colleagues scored higher than questions that simply asked about communication strategies. These results indicate that employees feel personal relationships between peers are healthy and strong, conversely, the hierarchical relationship with leadership may be strained or questioned at times.

Table 11

Responses to Learning Organization Dimension: Inquiry and Dialogue

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
In my college…		[1]	[2]	[3]	[4]	[5]	[6]		
people give open and honest feedback to each other	166	14	39	54	44	12	3	3.06	1.13
		8.3	23.2	32.1	26.2	7.1	1.8		
people listen to others' view before speaking	168	11	31	48	51	22	5	3.34	1.19
		6.5	18.5	28.6	30.4	13.1	3.0		
people are encouraged to ask "why" regardless of rank	168	18	44	46	38	18	4	3.04	1.25
		10.7	26.2	27.4	22.6	10.7	2.4		
people state their view, they also ask what others think	168	13	38	59	44	10	4	3.07	1.11
		7.7	22.6	35.1	26.2	6.0	2.4		
people treat each other with respect	167	4	19	38	46	41	19	3.95	1.26
		2.4	11.3	22.6	27.4	24.4	11.3		
people spend time building trust with each other	168	11	25	46	59	23	4	3.42	1.16
		6.5	14.9	27.4	35.1	13.7	2.4		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

The third dimension encourages collaboration and team learning across the organization. Respondents indicated similar mean scores for "programs have the freedom to adapt their goals as needed" (M = 3.76, *SD* = 1.06) and "programs revise their thinking as a result of discussions or information collected" (M = 3.79, *SD* = 1.14). Conversely, respondents did not believe "programs are rewarded, i.e., through faculty lines, budget money, etc., for their achievements as a program" (M = 2.51, *SD* = 1.14). Table 12 displays the specific response frequencies and statistics regarding each question.

A clear divide between the behaviors of team learning was found during analysis. Four of the items scored above the 3.50 mid-point indicating that the majority of employees do perceive

these actions to be frequently present on campus. The two behaviors of begin rewarded for achievements and the college acting upon their recommendations severely limit the team learning dimension.

Table 12

Responses to Learning Organization Dimension: Team Learning

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
In my college…		[1]	[2]	[3]	[4]	[5]	[6]		
programs have the freedom to adapt their goals as needed	166	4	14	48	56	40	4	3.76	1.06
		2.4	8.3	28.6	33.3	23.8	2.4		
programs treat members as equals, regardless of rank, culture, or other differences	168	4	28	52	45	35	4	3.54	1.13
		2.4	16.7	31.0	26.8	20.8	2.4		
programs focus both on the task and on how well the department/program is working	163	7	13	56	56	28	3	3.58	1.05
		4.2	7.7	33.3	33.3	16.7	1.8		
programs revise their thinking as a result of discussions or information collected	167	6	18	32	67	37	7	3.79	1.14
		3.6	10.7	19.0	39.9	22.0	4.2		
programs are rewarded for their achievements as a program	167	34	57	41	26	9	0	2.51	1.14
		20.2	33.9	24.4	15.5	5.4	.0		
programs are confident that they college will act on their recommendations	167	19	46	61	34	5	2	2.80	1.06
		11.3	27.4	36.3	20.2	3.0	1.2		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

Next, respondents were asked to report their perceptions on embedded systems. This is how the college communicates the effect people have across campus and the value employees bring to the campus community. Table 13 displays the mean scores for the questions related to this specific dimension. The least perceived behavior was the "college measures the results of the time and resources spent on professional development" (M = 2.53, *SD* = 1.02). Being one of the lowest average scores to a questionnaire item, greater attention should be paid to this behavior.

Specifically, the human resource department administering professional development opportunities would benefit knowing that 0 of 168 employees whom completed the survey reported this behavior as a 6 on the Likert Scale while nearly 50 percent responded with a 1 or 2 score. There is significant room for improvement in this learning behavior.

Conversely, employees affirmed that the college "uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings" (M = 3.55, *SD* = 1.29) and "enables people to get needed information at any time quickly and easily" (M = 3.56, *SD* = 1.09). It is noteworthy that only 156 of the 168 respondents provided an answer to the statement, "my college maintains an up-to-date data base of faculty research expertise" (M = 3.22, *SD* = 1.16). A possible rationale for the low response rate for this question is provided in the Chapter 5 discussion.

Table 13

Responses to Learning Organization Dimension: Establish Systems

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
My college…		[1]	[2]	[3]	[4]	[5]	[6]		
uses two-way communication on a regular basis…	168	11	25	46	39	40	7	3.55	1.29
		6.5	14.9	27.4	23.2	23.8	4.2		
enables people to get needed information at any time quickly and easily	167	5	25	44	61	29	3	3.56	1.09
		3.0	14.9	26.2	36.3	17.3	1.8		
maintains an up-to-date data base of faculty research expertise	156	13	30	43	50	19	1	3.22	1.16
		7.7	17.9	25.6	29.8	11.3	.6		
supports systems to measure gaps between current and expected performance	167	25	40	42	38	16	6	3.99	1.33
		14.9	23.8	25.0	22.6	9.5	3.6		
makes its lessons learned available to all employees	165	21	52	48	27	16	1	2.81	1.18
		12.5	31.0	28.6	16.1	9.5	.6		
measures the results of the time and resources spent on professional development	161	27	55	48	28	3	0	2.53	1.02
		16.1	32.7	28.6	16.7	1.8	.0		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

An organization's ability to value and incorporate employee feedback, otherwise known as empowerment, is the fifth dimension of a learning organization. Employees strongly believed that the "college invites people to contribute to the college's vision" (M = 4.25, *SD* = 1.28) but lacked a perception that the "college recognizes people for taking initiative" (M = 3.01, *SD* = 1.30) on campus (see Table 14). Mean scores for questionnaire items are slightly greater than the four prior dimensions, but so are the standard deviations. These increases indicate that respondents do perceive higher levels of these behaviors but not as a collective group. Some employees did not agree with the majority and do not perceive the same behaviors as their peers.

This dissonance could be the result of inconsistent communication or perhaps related to a personal experience.

A significant result was found in the behavior of inviting employees to contribute to the college's vision. In reviewing the college's approach in developing their latest strategic plan, it is evident that the high score is a result of a successful strategic planning process. Leadership executed a planning process that left employees feeling valued and included.

Table 14

Responses to Learning Organization Dimension: Empowerment

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
My college…		[1]	[2]	[3]	[4]	[5]	[6]		
recognizes people for taking initiative	166	24	40	36	45	18	3	3.01	1.30
		14.3	23.8	21.4	26.8	10.7	1.8		
gives people choices in their training, advising and committee assignments	165	9	20	39	45	37	15	3.76	1.32
		5.4	11.9	23.2	26.8	22.0	8.9		
invites people to contribute to the college's vision	165	5	12	26	43	51	28	4.25	1.28
		3.0	7.1	15.5	25.6	30.4	16.7		
give people control over the resources they need to accomplish their work	166	17	31	46	43	26	3	3.23	1.26
		10.1	18.5	27.4	25.6	15.5	1.8		
supports people who take calculated risks	165	19	26	54	48	16	2	3.13	1.18
		11.3	15.5	32.1	28.6	9.5	1.2		
builds alignment of visions across different levels and work groups	167	16	23	52	44	28	4	3.34	1.25
		9.5	13.7	31.0	26.2	16.7	2.4		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

The sixth dimension, systems connection, revolves around the college establishing structures and technologies that make it possible to capture and share learning within the organization. While three of the six questions (see Table 15) held mean scores above the 3.50

mid-point, the behavior perceived the most by respondents was that the "college encourages everyone to bring the students' views into the decision-making process" (M = 4.11, *SD* = 1.21). The least identifiable action reported was that the "college considers the impact of decisions on morale" (M = 3.26, *SD* = 1.38) within the campus community.

Examining the systems connection was important because it was here that some of the greatest collective mean scores were reported. Understanding what specific behaviors are positively perceived by many employees will assist leadership in promoting more of these actions. The most polarizing question asked if the college "helps balance work and family." The standard deviation for responses was over one and a half points and the percentage of responses were scattered across the Likert Scale unlike other questions. These results indicate that employees feel quite differently about how the college manages or promotes work-life balance and should be addressed by leadership.

Table 15

Responses to Learning Organization Dimension: Systems Connection

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
My college…		[1]	[2]	[3]	[4]	[5]	[6]		
helps balance work and family	168	26	24	31	43	28	16	3.42	1.54
		15.5	14.3	18.5	25.6	16.7	9.5		
encourages people to think from a global perspective	168	3	17	31	45	57	15	4.08	1.20
		1.8	10.1	18.5	26.8	33.9	8.9		
encourages everyone to bring the students' views into the decision making process	167	4	14	29	52	48	20	4.11	1.21
		2.4	8.3	17.3	31.0	28.6	11.9		
considers the impact of decisions on morale	167	24	27	37	43	32	4	3.26	1.38
		14.3	16.1	22.0	25.6	19.0	2.4		
works together with the outside community to meet mutual needs	167	6	24	42	48	41	6	3.67	1.20
		3.6	14.3	25.0	28.6	24.4	3.6		
encourages people to get answers from across the college when solving problems	167	10	26	47	49	28	7	3.48	1.23
		6.0	15.5	28.0	29.2	16.7	4.2		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

The seventh dimension of a learning organization is the ability to provide strategic leadership for learning. Respondents shared their lack of perception that "leaders are up to date information with people about directions taken by other peer or aspirant colleges of education" (M = 3.20, *SD* = 1.26). Meanwhile, the behavior most prevalent within the seventh dimension upheld that "leaders ensure that the college's actions are consistent with its values" (M = 4.00, *SD* = 1.28) (see Table 16).

Of all the dimensions, behaviors relating to provide leadership best dictate what college leadership can change or continue in their quest to make the college a learning organization. These results would suggest leaders could be more prompt in sharing information and encourage

managers to invest in and mentor their subordinates. These two adjustments would improve employees' perception of this dimension across campus.

Table 16

Responses to Learning Organization Dimension: Provide Leadership

Item	*N*	Likert Scale Number [1-6]						M	*SD*
		Frequency							
		Percent							
In my college…		[1]	[2]	[3]	[4]	[5]	[6]		
leaders generally support requests for learning opportunities and training	166	13	19	39	46	43	6	3.63	1.29
		7.7	11.3	23.2	27.4	25.6	3.6		
leaders share up to date information with people about directions taken by other peer or aspirant institutions	168	15	38	46	42	22	5	3.20	1.26
		8.9	22.6	27.4	25.0	13.1	3.0		
leaders empower others to help carry out the college's vision	167	10	20	31	53	45	8	3.76	1.27
		6.0	11.9	18.5	31.5	26.8	4.8		
leaders mentor and coach those they lead	165	14	34	35	45	33	4	3.37	1.30
		8.3	20.2	20.8	26.8	19.6	2.4		
leaders continually look for opportunities to learn	167	9	29	35	56	31	7	3.55	1.24
		5.4	17.3	20.8	33.3	18.5	4.2		
leaders ensure that the college's actions are consistent with its values	168	7	16	30	50	47	18	4.00	1.28
		4.2	9.5	17.9	29.8	28.0	10.7		

Note: Not all participants responded to every item.
Likert Scale = [1] Almost Never – [6] Almost Always

Descriptive statistics are helpful in assessing perceptions based on individual items but they do not allow for simple comparisons between variables. Instead, Pearson's correlation statistics were used to evaluate the relationship each dimension had with the full DLOQ scale results. Table 17 presents the correlation coefficients between each dimension and the full scale. Each dimension indicated a strong positive correlation to the full scale, which was to be expected. Surprisingly, the r value for empowerment (r = .893) was larger than that of systems connection (r = .890) even though the mean score for systems connection was greater. These

results may indicate that leaders should include empowerment along with provide leadership and systems connection as a strength of the college when making decision. The dimension of provide leadership (r = .903) maintained the highest r value of all seven dimensions, which aligns with prior analysis using mean scores where it also scored the highest average.

Table 17

Pearson's Correlations Matrix between Dimensions and Full DLOQ Scale

		CL	ID	TL	ES	EP	SC	PL	DLOQ
Continuous	*r*	---							
Learning	Sig.								
Inquiry and	*r*	.737**	---						
Dialogue	Sig.	.000							
Team Learning	*r*	.713**	.725**	---					
	Sig.	.000	.000						
Establish Systems	*r*	.601**	.567**	.542**	---				
	Sig.	.000	.000	.000					
Empowerment	*r*	.691**	.702**	.716**	.666**	---			
	Sig.	.000	.000	.000	.000				
Systems	*r*	.702**	.711**	.708**	.658**	.759**	---		
Connection	Sig.	.000	.000	.000	.000	.000			
Provide	*r*	.671**	.708**	.696**	.700**	.827**	.804**	---	
Leadership	Sig.	.000	.000	.000	.000	.000	.000		
Full DLOQ	*r*	.852**	.857**	.839**	.781**	.893**	.890**	.902**	---
Scale	Sig.	.000	.000	.000	.000	.000	.000	.000	

**Significant at the 0.01 level (2-tailed)
N = 168

Dimensions by demographics. Pearson's and Spearman's coefficients were used to identify relationships between the seven dimensions and three of the demographic variables: length of employment, educational attainment, and gender. It was not possible to use these tests to compare the relationship of the dimensions and employee position because of the nominal measurement scale.

Employees reported their length of employment as less than 1 year, 1-4 years, 5-9 years, or 10 or more years. Pearson's coefficients indicate a small negative relationship between length of service and the empowerment (r = -.164, p < .05), systems connection (r = -.221, p < .01), and provide leadership (r = -.176, p < .05) dimensions. Table 18 shows that all seven dimensions have a negative relationship with the employee length of service variable.

These results support an earlier finding that the perception of learning behaviors decreases as length of employment increases. This negative relationship was specifically evident in the systems connection dimension. Leaders should seek out answers as to what is happening after the first year of employment, whether it be experiences, acculturation, or something else, that is attributing to the lack of learning behaviors across campus.

Table 18

Pearson's Correlation between Dimensions and Length of Employment

Variable		Employment
Continuous Learning	*r*	-.135
	Sig.	.083
Inquiry and Dialogue	*r*	-.126
	Sig.	.105
Team Learning	*r*	-.149
	Sig.	.055
Embedded Systems	*r*	-.150
	Sig.	.053
Empowerment	*r*	-.164*
	Sig.	.034
Systems Connection	*r*	-.221**
	Sig.	.004
Provide Leadership	*r*	-.176*
	Sig.	.023

**Significant at the 0.01 level (2-tailed).
N = 165

To investigate the extent to which length of employment groups differed, a one-way ANOVA and Tukey HSD post hoc tests was used to compare the dimension mean scores of

employees and their length of employment. Results revealed that only the systems connection dimension had a statistically significant difference between groups (p = .019) as empowerment and provide leadership were greater than a 0.05 p value. The greatest difference (p = .021), with a moderate effect size (eta squared = .059) was found between employees of less than 1 year and more than 10 years (see Table 19).

Again, the analysis highlights a noticeable difference between new employees, less than one year, and long-standing employees that have been with the college for 10 or more years. The repeated theme of longer-tenured employees perceiving fewer learning behaviors should be concerning for college leadership. A rationale assumption would presume that longer-tenured employees have a better grasp of the college campus and climate meaning their perceptions would be a more accurate description of the institution.

Table 19

Tukey HSD Analysis of Systems Connection and Length of Employment

Variable		Mean Difference	S.E.	Sig.
Less than 1 year	1-4 years	.547	.317	.314
	5-9 years	.805	.321	.063
	More than 10 years	.858*	.294	.021
1-4 years	Less than 1 year	-.547	.317	.314
	5-9 years	.257	.223	.658
	More than 10 years	.310	.182	.326
5-9 years	Less than 1 year	-.805	.321	.063
	1-4 years	-.257	.223	.658
	More than 10 years	.052	.190	.992
More than 10 years	Less than 1 year	-.858*	.294	.021
	1-4 years	-.310	.182	.326
	5-9 years	-.052	.190	.992

*Significant at the 0.05 level.

Respondents described their highest level of educational attainment in four ways: diploma/GED, bachelor's, master's, or doctoral/terminal degree. Only one significant relationship, albeit with small statistical strength, was found when using a Pearson's correlation test. It appears that an employee with more formal education perceived fewer systems connection behaviors (r = -.22, p < .01) on campus than other educational groups. No other significant correlations were made between the groups (see Table 20).

Similar to the findings of Table 18, educational attainment and perception of learning organization dimensions also had a negatively correlated relationship. As an employee's educational attainment level rose, their perception of learning behaviors on campus diminished. And again, systems connection seems to be the most polarizing dimension where employees with a doctorate largely differ from those with a diploma, bachelor's, or master's degree by not endorsing the college to be a learning organization.

Table 20

Spearman's rho Correlation of Dimensions and Educational Attainment

Variable		Education
Continuous Learning	*r*	-.071
	Sig.	.367
Inquiry and Dialogue	*r*	-.078
	Sig.	.319
Team Learning	*r*	-.138
	Sig.	.076
Embedded Systems	*r*	-.123
	Sig.	.114
Empowerment	*r*	.018
	Sig.	.814
Systems Connection	*r*	-.202**
	Sig.	.009
Provide Leadership	*r*	-.067
	Sig.	.394

**Significant at the 0.01 level (2-tailed).
N = 165

Further analysis using a one-way ANOVA and Tukey HSD post hoc tests was conducted to measure the variance between educational attainment groups and perception of systems connection. Significant differences were identified between groups ($p < .001$), specifically with employees holding a bachelor's or master's and a doctoral degree. These results only further cement the presence of a divide in perceptions between employees with a doctorate and those with a bachelor's or master's degree.

Table 21 shows in detail the significance found between the groups. The effect size of this variable was calculated and found to have an eta squared value of .11 which lies between the moderate and large effect range and was the greatest influence found thus far in the analysis.

Table 21

Tukey HSD Post Hoc Analysis of Systems Connection Dimension and Educational Attainment

Variable		Mean Difference	S.E.	Sig.
Diploma	Bachelor's	-.319	.212	.439
	Master's	-.242	.225	.705
	Doctorate	.424	.211	.191
Bachelor's	Diploma	.319	.212	.439
	Master's	.076	.192	.978
	Doctorate	.743*	.177	.000
Master's	Diploma	.242	.225	.705
	Bachelor's	-.076	.192	.978
	Doctorate	.666*	.192	.004
Doctorate	Diploma	-.424	.211	.191
	Bachelor's	-.743*	.177	.000
	Master's	-.666*	.192	.004

*Significant at the 0.05 level.

Spearman's rho correlation analysis allows for the comparison between a dichotomous variable and a continuous variable. This test was used to measure the presence and strength of the relationship between learning organization dimensions and gender. There was a statistically significant positive relationship (r = .189, p < .05) identified between gender and systems connection (see Table 22). An Independent Samples T-test was conducted and confirmed that females significantly differ (p = .032) from males and perceive systems connection to be present on campus more than male employees. The magnitude of the mean score differences were small in scale (eta squared = .03) but still noteworthy.

Table 22

Spearman's rho Correlation of Dimensions and Gender

Variable		Gender
Continuous Learning	r_s	.114
	Sig.	.163
Inquiry and Dialogue	r_s	.098
	Sig.	.230
Team Learning	r_s	.106
	Sig.	.192
Embedded Systems	r_s	.064
	Sig.	.432
Empowerment	r_s	.128
	Sig.	.115
Systems Connection	r_s	.189*
	Sig.	.020
Provide Leadership	r_s	.129
	Sig.	.113

*Significant at the 0.05 level (2-tailed).
N = 152

Breaking down each dimension between groups and within groups revealed more variance than what was originally uncovered when analyzing the results from the full DLOQ scale using descriptive statistics. An in-depth look at how demographics correlated with learning levels and dimensions was needed to provide greater context and significance to the analysis.

The results from the analysis have brought up interesting and intriguing points which are covered in the application and discussion.

Application of Results

Analysis of the data collected through the DLOQ and accompanying demographic questions made it possible to test the three hypotheses and answer the research questions prepared for this study. Results of the analysis are beneficial as the college attempts to introduce changes across campus and revise the current structure and services of the human resource division. A synthesis of the data analysis has been collated into five key findings so information could be easily presented and applied.

Key finding #1. Research question and hypothesis number one focused on the status of the college as a learning organization. Due to the college's historical background, recent participation in a strategic planning process, and continued pressures to stay relevant and competitive in the market, it was hypothesized that the majority of employees would perceive the college as a learning organization. Ultimately, this was rejected as employees' reported a mean score of 3.39. This meant that learning dimensions and behaviors were not perceived by employees on a consistent basis which is the identifying characteristic of learning organizations. Analysis on each of the three learning levels also disagreed with the original hypothesis as not one of the individual (M = 3.29), departmental (M = 3.33), or college (M = 3.46) level analyses resulted in a mean score above the mid-point. These statistics confirmed that employees do not currently perceive the college to be a learning organization.

This result was unexpected for several of the reasons included in the college and research description in Chapter 1. This institution has experienced environmental jolts and a leadership

transition within the past few years and had relative to high success in all of their initiatives. Additionally, the strategic planning process the institution just completed was well though through and brought the campus together in an unprecedented manner. According to the literature, these are typically the types of actions that encourage learning behaviors within an organization.

Key finding #2. The second research question addressed how the four demographic variables influenced an employee's perception of learning organization dimensions and behaviors. Specifically, the question sought to find which of the four variables had the greatest impact. The hypothesis stated that females would exhibit a higher perception of learning organization behaviors than male employees. This assumption was based upon the existing literature on females in learning organizations, the response rate and engagement of female employees, and high percentage of female leaders at the college. It was surprising that gender did not play a significant role on the full scale or any of the learning level analyses.

Respondents whom provided their gender were predominantly female (67%). The assumption that participation in the survey would align with dimensions such as team learning and inquiry and dialogue was incorrect. Although a significant relationship between learning organization behaviors and gender was not identified, a statistically significant correlation between educational attainment and learning organization perceptions was uncovered in the analysis.

When comparing the full DLOQ results with employee groups based on educational attainment, employees holding doctoral degrees varied significantly from employees with bachelor's ($p = .02$) and those with a master's ($p = .05$) degree. Similar findings at the individual

($p = .007$) and department ($p = .003$) level were reported between those with a doctorate and employees with a bachelors or masters. No significant variance was found within the college learning level. These findings suggest a negative correlation between educational attainment and learning organization dimensions is present on campus.

More research would be required to investigate, but it is intriguing why employees with doctorates have a negative relationship with the presence of learning organization dimensions yet faculty members, typically the employees holding that degree, do not. It could have been presumed that the characteristics of faculty and employees with doctorates would have resulted in similar trends but that was not supported in the analysis.

Key finding #3. Research question three examined how employees perceive learning organization dimensions and behaviors on campus. The literature review covers the unique aspects of each dimension but the hypothesis proposed that regardless of the differences, employees would not perceive any dimension significantly more or less than another dimension. The analysis was clear in that the systems connection and provide leadership dimensions were perceived significantly more than the other five dimensions.

These findings subsequently reject the proposed hypothesis that no significant differences would be found in employee perceptions. It is noteworthy that the systems connection ($M = 3.67$) and provide leadership ($M = 3.58$) mean scores are some of the only values to reach above the mid-point, meaning the majority of campus agreed with the findings. Systems connection is one of the two dimensions that Watkins and Marsick (1999) found to play the most influential role in organizational performance. Additionally, a parallel between the new

college president with learning organization experience and the high mean score of the provide leadership dimension should be noted.

As the college seeks to become more effective in their work and the president continues to shape the campus into a learning organization, it is encouraging that these are their top dimensions. It would be valuable to investigate further why these dimensions were perceived at a significantly higher rate than the others. It is possible that a certain program or person is contributing to the high perception of these dimensions.

Key finding #4. The variable group that seemed to have the most negative correlation with learning behaviors was that of employees with a doctorate or terminal degree. While comparing educational attainment with the seven dimensions, employees with a doctorate reported significantly lower scores than those with a bachelor's or master's degree in the areas of continuous learning ($p = .031$), inquiry and dialogue ($p = .021$), team learning ($p = .003$), and systems connection ($p = .000$). Additionally, doctoral holding employees ($M = 3.06$) were statistically less perceptive of learning behaviors at the department level ($p = .003$) than employees with a bachelor's ($M = 3.57$) or master's ($M = 3.47$) degree. The same statistically significant variances were found at the individual level ($p = .007$) between doctoral ($M = 3.05$) and bachelor ($M = 3.50$) and master ($M = 3.51$) holding employees.

Some statistically significant findings between employee demographic groups were found when comparing learning organization dimensions, but none as prevalent as that of employees with a doctorate or terminal degree. As with the second research question, it is surprising that more statistical differences were not identified with the faculty employee demographic. The only significant variance found regarding faculty members was when they

were compared with administrators based on dimension mean scores. Across the board, educational attainment proved to be the most influential demographic variable in the study.

Key finding #5. Much can be gleaned from simply understanding which learning behaviors were the most and least perceived of the 43 items. Table 23 displays the ten most polarizing responses on the survey. Beginning with the highest rated, employees agreed the most that the "college invites people to contribute to the college's vision" (M = 4.25, *SD* = 1.28). The second highest rated behavior stated that "in my college, people help each other learn" (M = 4.17, *SD* = 1.20). These statements are useful in understanding the behavioral strengths of the institution and might have value in communicate with employees to help establish or strengthen a mental model.

Likewise, the lowest rated behaviors are helpful in identifying the shortcomings of the college in a qualitative manner. The management of financial resources seemed to be a commonality between the two lowest rated behaviors which were "programs are rewarded, i.e., through faculty lines, budget money, etc., for their achievements as a program" (M = 2.51, *SD* = 1.14) and "my college measures the results of the time and resources spent on professional development" (M = 2.53, *SD* = 1.02). As discussed in Chapter One, this institution and many like it are going through difficult financial times, which increases the visibility and criticism of financial decisions. It is not surprising that the theme of resource allocation is prevalent in the low scoring results.

Table 23

Most and Least Perceived Learning Organization Behaviors

	Item (Mean)
Most Perceived	• My college invites people to contribute to the college's vision (4.25) • In my college, people help each other learn (4.17) • My college encourages everyone to bring the students' views into the decision making process (4.11) • My college encourages people to think from a global perspective (4.08) • In my college, leaders ensure that the college's actions are consistent with its values (4.00)
Least Perceived	• In my college, programs are rewarded, i.e., through faculty lines, budget money, etc., for their achievements as a program (2.51) • My college measures the results of the time and resources spent on professional development (2.53) • In my college, programs are confident that the college will act on their recommendations (2.80) • My college makes its lessons learned available to all employees (2.81) • In my college, people are rewarded for learning (2.92)

Note: Prevalence was determined by the mean score > 3.50

Summary

Valuable insight was provided through the statistical analysis of the DLOQ results. It is important for college leaders to be aware that as a campus, employees do not perceive the institution to be a learning organization. The areas that were found to be of statistical significance will be a valuable asset in planning processes moving forward and as well as having identified an employee group that needs a more intentional approach. Through the use of descriptive statistics, ANOVAs, and paired-samples t-tests multiple strengths of the institution were identified. These dimensions and behaviors are just as beneficial to understand as the

weaknesses. The next chapter explains how to interpret these findings and continue the transformation of becoming a learning organization.

Chapter 5: Conclusion

Learning organization principles have the potential to benefit higher education institutions across the globe. The practice of continually learning has been studied and encouraged within business and private practice for several decades and it is time to incorporate the same behaviors into higher education. Learning organization dimensions and behaviors have the potential to make a dramatic impact on the success and effectiveness of colleges and universities.

The purpose of this study was to examine a four-year, private liberal arts college in the Midwest that has and continues to adapt with the changing environment. From the outside, this institution seemed to display many of the characteristics of a learning organization and made it the ideal organization to study using the Dimensions of a Learning Organization Questionnaire. As described in chapter two, learning organizations have the ability to evolve and adjust more effectively than organizations lacking learning behaviors. In an era where institutions are closing and merging at a higher rate than ever before, the ability to implement sustainable change is critical for institutions.

Providing answers to the three research questions allowed leaders the ability to review, incorporate, and act upon the findings to increase learning organization behaviors across campus. Chapter 4 reported the results of the statistical analysis of the survey and answered the research questions. Chapter 5 provides a richer summary and discussion of the results by offering personal observations, suggestions for practical implementation and improvement, and ideas for future research.

Conclusions

Using the research questions as a guide, this section reviews the hypotheses and discusses the college's status as a learning organization, how demographic variables played a role in influencing employees' responses, and how each dimension of learning organizations was perceived on campus. Through the use of the statistical analyses, learning organization literature, and description of the college several themes were identified.

Review of hypotheses. Three research questions with correlating hypothesis were implemented to guide the process in which data were gathered, analyzed, and summarized. The applied nature of the questions was intentional to provide consultative-focused recommendations at the conclusion of the study. The first question provided a general assessment of the institution's culture at a particular moment in time when the survey was distributed. Identifying the full DLOQ scale mean score indicated how closely employees believed the college aligned with a learning organization. This information can be used as a benchmark if another DLOQ survey were to be distributed in the future.

The second research question segmented employees based on the demographic information they provided with their questionnaire responses. The human resource division of the college can apply these data to accurately address negative perceptions and barriers on campus. Special attention was given to groups of employees that perceived low levels of learning organization behaviors to potentially improve the overall culture.

Similarly, the third research question sought to investigate how employees perceived the seven dimensions that make up learning organizations. Highlighting what the campus does well and addressing skills that are lacking within the College will be helpful in implementing a

successful strategic plan. These questions should be a top priority for leaders to answer before moving ahead with any change initiatives.

College perception. Predominately, employees did not view the institution as a learning organization. Of the 168 valid surveys, the mean score of the DLOQ findings fell beneath the 3.50 mid-point of the Likert scale used to measure employees' perception. The DLOQ was designed in such a way to measure learning behaviors at three unique levels specific to higher education: individual, department, and college level.

Likewise, the additional analysis of mean scores by level resulted in non-significant findings. This result aligns with the skeptics who do not believe it is possible for institutions to operate as a learning organization. Regardless, institution benefit from greater production, employee work-life balance, and other behavioral advantages linked with learning organizations. It is still wise for the institution to pursue learning organization dimensions.

Demographic variables. The second focus of the analysis was to divide employees by the four demographic variables and examine whether those variables influenced learning organization perceptions. The hypothesis, based on the literature and high number of females in leadership at this institution, stated that females would report a higher perception of learning behaviors on campus compared to their male peers. After analyzing the data, almost no statistically significant differences could be found between the two groups. The only distinction found was when comparing mean differences of gender and the perception of the systems connection dimension. Females had a positive correlation with systems connection and scores showed a statistically significant increase from male responses.

The demographic variable that ultimately influenced DLOQ scores most significantly and could be used as a predictor of learning organization perceptions was that of educational attainment. Employees with a doctorate or terminal degree consistently reported statistically lower scores than employees with a bachelor's or master's degree. Employees with a bachelor or master's degree exhibited similar tenancies throughout the analysis of the questionnaire. Within the individual and department level and four of the seven dimensions (CL, DI, TL & SC) statistically significant differences were found between the three groups.

Although not to a significant level, employees with a high school diploma or GED often mirrored the scores of those with a doctorate. One-way ANOVAs revealed statistically significant differences between faculty and administrators and employees with more than 10 years and less than 1 year of experience when exploring the individual dimensions but not with the strength or consistency that employees with a doctorate displayed variance with their peers.

Perception by dimension. Research question three asked how employees perceived learning organization dimensions. The six or seven items, or behaviors, correlated with each dimension gave specific examples of actions or attitudes found within a learning organization. Systems connection and provide leadership were perceived to a greatest extent ($p < .001$) compared to the other five dimensions. The majority of employees agreed that the college consistently establishes systems for knowledge to be accessed and shared with employees. Similarly, employees found college leaders frequently support learning and provide opportunities to use learning for organizational benefit.

The least perceived dimension was that of embedded systems ($M = 3.11$). Embedded systems describes the low and high technology incorporated within the organization to capture,

organization, and distribute information or resources. Unsurprisingly, the two lowest items from the DLOQ survey revolved around a lack of systems in place. The first question addressed the college's lack of rewards for people or programs that were successful throughout the year. The second identified a missing step in collecting and evaluating the resources allocated to professional development. In both cases it is clear that effective systems for assessing and rewarding need to be established within the organization.

Discussions

As it was shared in the results and synthesis sections, the majority of employees do not perceive the college to be a learning organization. This was surprising because of the intentional nature in which this institution and its employees operate. My perception in researching the college was that open and consistent communication was woven in the daily fabric and employees were innate learners as they navigated many of the recent changes. Additionally, in reviewing the process followed in developing the strategic plan I felt no dimension was missed and that a successful planning process would encourage greater perceptions of a learning organization behaviors. As Watkins and Marsick (1993b, 1996) described the dimensions and behaviors associated with a learning organization this institution seemed to display these characteristics on a regular basis.

Since the results disagree with my hypothesis it is evident that there are underlying attitudes and perceptions that are not obvious to an outsider. Although, it seems that the new president is making some progress encouraging learning across campus since that was one of the top dimensions identified by employees. The human resource division will make significant process if they can focus on the inclusion of employees with terminal degrees. Engaging with

these individuals should help increase their perception of learning behaviors, which will positively influence the entire campus.

The demographic make-up of respondents played an influential role in the results of this survey. Over half of the respondents reported having worked at the college 10 years or longer (52.4%) and two-thirds were female (67.8%) employees. Some research exists connecting successful learning organization behaviors with females (Alexiou, 2005; Gouthro et al., 2006) but I was not able to locate in the literature research that studied longer tenured employees and learning organizations. The stereotype of employees with a longer tenure tends to assume they are more resistant to change. There were a few tests during the analysis that confirmed that assumption but on a limited scale. With that said, I do believe having more employees with less experience at the institution would provide a more positive perception of the college acting as a learning organization.

Prior to this survey the learning organization theory had not been dispersed or discussed within the campus community. Data analysis revealed that employees most significantly perceived the presence of systems connection and provide leadership. One important aspect to highly functioning learning organizations is effective communication. If college leadership can succinctly summarize and distribute the results of the DLOQ survey and describe the features of a learning organization, I have confidence that employees would see value in the dimensions, incorporate more behaviors, and report higher scores the next time the DLOQ was distributed.

Tinto (1997) highlighted that these dimensions have the ability to increase production and efficiencies that will benefit the student experience. After researching the college and characteristics of its employees, it is my opinion that the majority of employees genuinely work

to improve the student experience and would welcome change if it meant more benefits for students. The mission and vision of the college are important to many employees. This altruistic attitude is captured in high scores reported to the question asking if actions align with the college's values. In my opinion, employees would be willing to adopt new learning behaviors if it meant improving the students' experience as it aligns with the college's mission.

Another reason I believe this institution would benefit from developing as a learning organization is because there are seeds of the learning organization dimensions already within the college. The highest rated response on the DLOQ was that employees felt that people help each other learn. Since the learning organization theory that is fundamentally based upon continuous learning, this response confirms that there is at least some culture of learning present on campus. Honing those traits, paving the way for more opportunities, and offering rewards for desired behaviors will continue the transforming the entire culture and begin embrace learning behaviors.

Included in my recommendations for further research is a special focus on the employees with a doctorate to examine why they were the demographic group that consistently reported lower perceptions of learning behaviors. I believe it is reasonable to correlate doctoral holding employees with faculty members since that is the most common position to require a terminal degree. Narrowing the focus to a specific group allows the human resource division to move quickly and effectively with the support services they can provide. It is reasonable why some faculty, specifically those with full tenure, may be less quick to embrace change, but I did not expect that they would perceive learning behaviors differently than their colleagues. I assumed

that faculty members uninterested in adapting themselves would still perceive that others were open to learning and changing.

Since employees with doctoral degrees make up a large majority of campus employees, it is vital that leadership identifies ways to create structures, programs, and communication plans to better engage these individuals. The perception of these employees shapes the culture of the entire campus. A valuable place for the human resource division to begin would be by reviewing the specific learning behaviors listed in the DLOQ. Identifying specific actions and attitudes that make up a learning organization would provide a starting point on how to grow learning behaviors across campus.

Additionally, employees with a bachelor's or master's degree should be given attention as well. This group of employees perceived the most learning behaviors on campus and could be used as the leaders of a grassroots-like movement of implementing learning organization dimensions across campus. As more resources are invested into human resources there may be opportunities to develop programs for these individuals. Educating and training these employees to help encourage continuous learning may have an infectious result since it is peer-to-peer rather than top-down change. Garnering buy-in from this group may prove fruitful during future change initiatives.

Marsick and Watkins' (1999) research on which dimensions are the most related to organizational performance identified inquiry and dialogue and systems connection as the greatest indicators. It was encouraging to find that systems connection is the top dimension perceived at the college since they are seeking to improve their performance and effectiveness. Ironically, in my review of the institution I was unable to identify any specific technologies or

programs that overtly contributed to the high scores. This could be an opportunity for human resource professionals to identify what is working well and share the successes with employees so they can see how college resources are making a difference on campus.

Conversely, it is obvious that the high scores found in the provide leadership dimension are attributed to the new college president. The president has past experience with learning organizations and practices many of the behaviors already. The survey results confirm that the president is successfully modeling, encouraging, and providing opportunities for the campus to become a learning organization. As mentioned in the literature review, learning organizations must have quality leadership at the forefront. Since the institution seems to have that in their president, it is another reason they should continue transforming into a learning organization.

One non-significant note to make is regarding the 12 missing responses to question 22 of the DLOQ. The question reads, "my college maintains an up-to-date data base of faculty research expertise". Although this was noted during data analysis, it is my assumption that because over two-thirds of respondents were administrators or staff members (67.1%) they were not aware of faculty research or databases and chose not to respond because of lack of knowledge. Since the mission of this institution is teaching rather than research it is not surprising that was a low awareness of faculty research and databases.

Limitations

While conducting this research study a few limitations arose. As with most quantitative research, response rate of the sample plays an integral role in analyzing, drawing conclusions, and making generalizations with the data. Although the response rate achieved in this study was acceptable, a greater number of respondents would have provided a richer data set. The timing of

the survey distribution was not been ideal because many employees were occupied with their year-end responsibilities. Additionally, a different survey measuring employee engagement and strengths had be distributed within the same semester. That survey received a response rate over 50%, which suggests that employees may have not felt the need or desire to complete a second survey in a short timeframe. If the college decided to evaluate learning behaviors again it may be advantageous to collect data in the winter which would provide employees at least one semester of experience as well as avoid the busyness of spring.

A limitation common to all benchmarking research is the lack of comparative data. Replicating the DLOQ survey would be incredibly valuable for the institution as they implement new programs and practices. Once time has been given for actions and attitudes to change, administering the DLOQ again would result in a longitudinal study and allow for an analysis of the change. That type of regular evaluation is an example of continuous learning, a foundational behavior of learning organizations, and would be beneficial to implement moving forward. To begin this type of research, it was first necessary to capture the current perceptions of employees through this study to provide a foundation for future analysis.

Theoretical Implications

From the beginning, one of the strengths of the learning organization framework presented by Watkins and Marsick (1993b, 1996) is its ability to account for the structural complexities within higher education. The hierarchical nature of the learning levels accurately addresses the variance found in colleges and universities. The analysis of this research concluded that perceptions did vary based on which learning level was being analyzed. These findings

support that evaluating perceptions on only one level is inadequate and can potentially cover up underlying attitudes and themes.

Additionally, the seven dimensions of the learning organization theoretical framework were a valuable asset to this study. The dimensions provided a bridge between quantitative analysis and practitioner-friendly evidence. Data analysis in this study revealed that employees perceived the dimensions in drastically different manners and provided specific actions or behaviors that were used to evaluate those dimensions. Simply calculating the full DLOQ scale scores would have hidden the fact that employees do perceive some learning behaviors.

The dimensions lift up the strengths of an organization while also identifying areas in need of improvement. Human resource professionals and leaders benefit from this type of insight and can use it to continue improving the institution. The findings and methodology of this study support the constructs of the learning organization theory. Watkins and Marsick (1993b, 1996) were clear that an institution can never truly achieve a learning organization status, but rather, can only make a commitment to continually work to embed learning behaviors into the culture. This study was the first step in making a commitment to learning practices and can be used as a benchmark to measure future progress.

Implications for Practice

Private liberal arts colleges should be interested in reviewing the results of this study for two reasons. The first is because the issues facing this institution are largely the same as their peer institutions which suggests their employees likely share similar perceptions. Second, the results of the DLOQ are practical and simple to comprehend, regardless of a person's quantitative background. This is important because gaining employee buy-in is necessary to

create change and transparent communication is an effective strategy to accomplish that task. Leaders would be wise to condense the findings of this study into a shareable document and distribute it to employees. The concepts are simple that employees will be able to draw conclusions without a deep understanding of the framework or analysis.

Other institutions of higher education could also benefit from understanding their own learning organization status. The dimensions and behaviors described in the theory would aid institutions in becoming a more nimble and adaptable organization. At a time where the environment is shifting, it would be advantageous to understand the behaviors needed to adapt to the jolts and changes within the environment. The DLOQ, whether in the 7-, 21-, or 43-item format, is a simple and effective way to gather and analyze employee perceptions. Institutions of all types and sizes can quickly and cost-effectively incorporate this survey into their annual agenda and use the results to make decisions, plan for new programs, or monitor campus morale.

Implications for Research

For the institution used in this study, a qualitative follow up with employees would provide valuable insight that was not easily translated in quantitative measurement. The ability to ask probing questions and collect examples through stories and situations would improve the accuracy and clarity of employee perceptions. Additionally, qualitative interviews may reveal answers as to why some demographic groups and learning organization dimensions were less receptive to the idea of the college being a learning organization. Having richer context to some of the aspects of learning behaviors would eliminate the need for as much hypothesizing and allow for more substantiated theories to be made during analysis.

Similar to the qualitative analysis suggestion, further research specifically on the employees with doctoral or terminal degrees would be useful in this context. Since the results consistently showed statistically significant variance between this group of employees and their peers, there must be underlying attitudes and themes that need to be investigated. If the institution was able to increase the perception of just this employee group, the perception of learning behaviors for the entire employee could be improved.

The addition of more demographic questions to the survey would be an interesting way to draw more conclusions from data collected. The additional respondent segments would allow for more comparisons and analysis within and between employee groups based on their perceptions of learning behaviors. Variables such as age, race, and the number of institutions the employee has worked for are a few suggestions to include in future research of learning organizations in higher education.

If the institution completes the questionnaire again it would be valuable to incorporate the section of the questionnaire that focuses on financial performance. Marsick and Watkins (1999) suggested that an organization's financial performance is positively correlated with learning organization dimensions and developed a set of items focusing on this topic. For many organizations, even non-profits, financial performance is required to thrive and succeed. If organizations consistently measured their DLOQ results alongside the financial outcomes of each year, organizations could use this as a tool for improving performance.

Summary

Marsick and Watkins (1999) developed a model that uses continuous learning behaviors to assist organizations and employees operate in the most effective and efficient manner possible.

As colleges and universities face greater obstacles in their quest to education and develop students, changes must be made to help institutions adapt. Learning organization dimensions and behaviors is an ideal model to implement and follow. This study provided the benchmarking data for an institution looking to use the concepts of a learning organization to help function more effectively across campus. Perhaps this research will also provide a springboard for the college to leverage its competitive advantage in the marketplace and use the learning behaviors to help the college thrive in a difficult environment.

The benefits of transforming into a learning organization may not be immediately visible but are worth the investment. In the slow changing field that is higher education, new structures, programs, and planning that are necessary to incorporate learning behaviors will require substantial time and resources. Many difficult decisions face institutions of higher education but the consequences of remaining a rigid, stagnant organization are far too great compared to the long-lasting benefits of becoming a learning organization.

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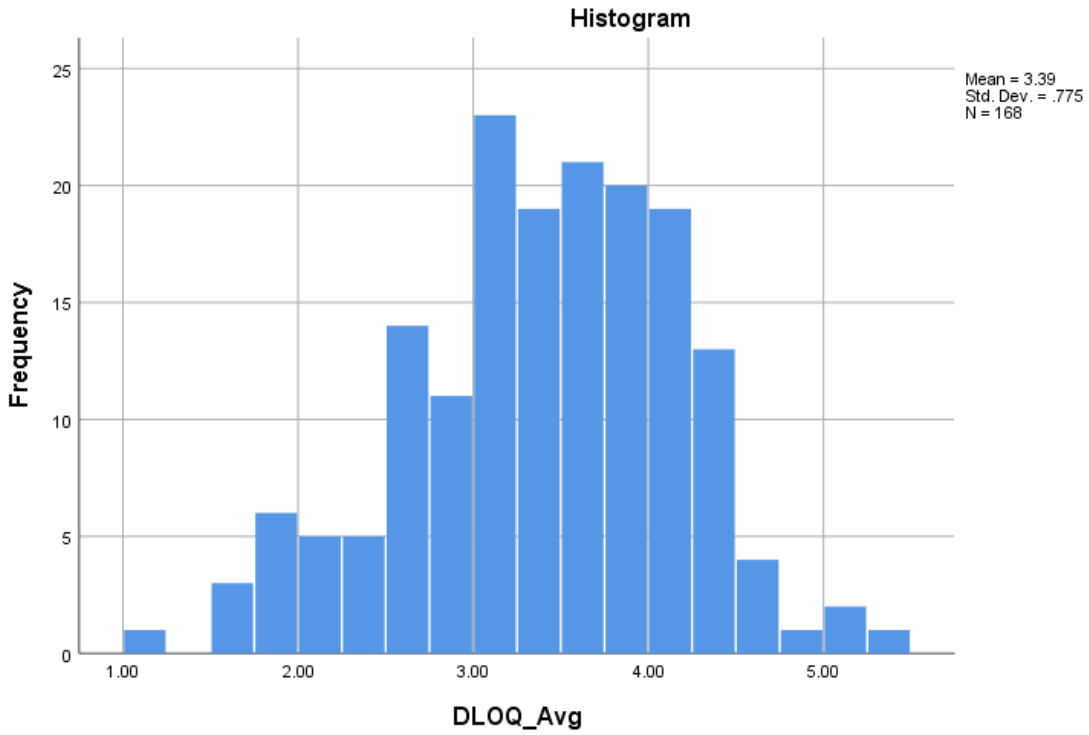
Appendix A: Normality & Reliability Tests for the Full DLOQ Scale

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Full DLOQ Scale Mean Scores	.053	168	.200*	.990	168	.309

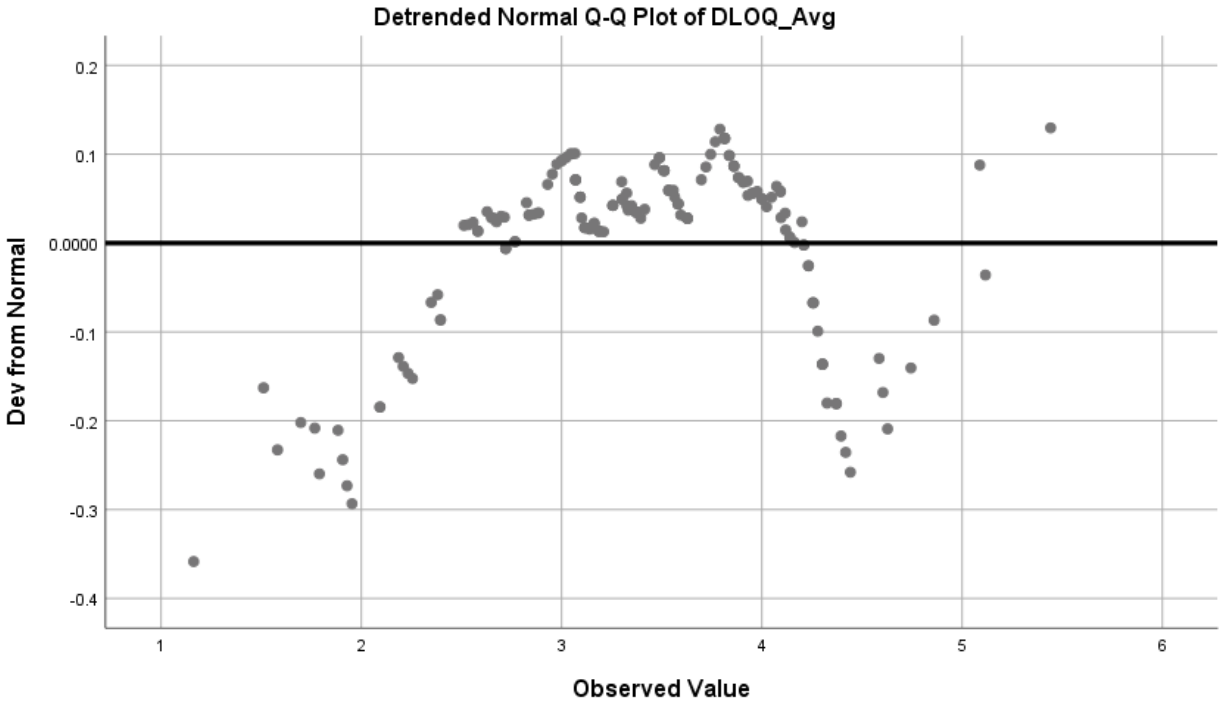
*. This is a lower bound of the true significance.

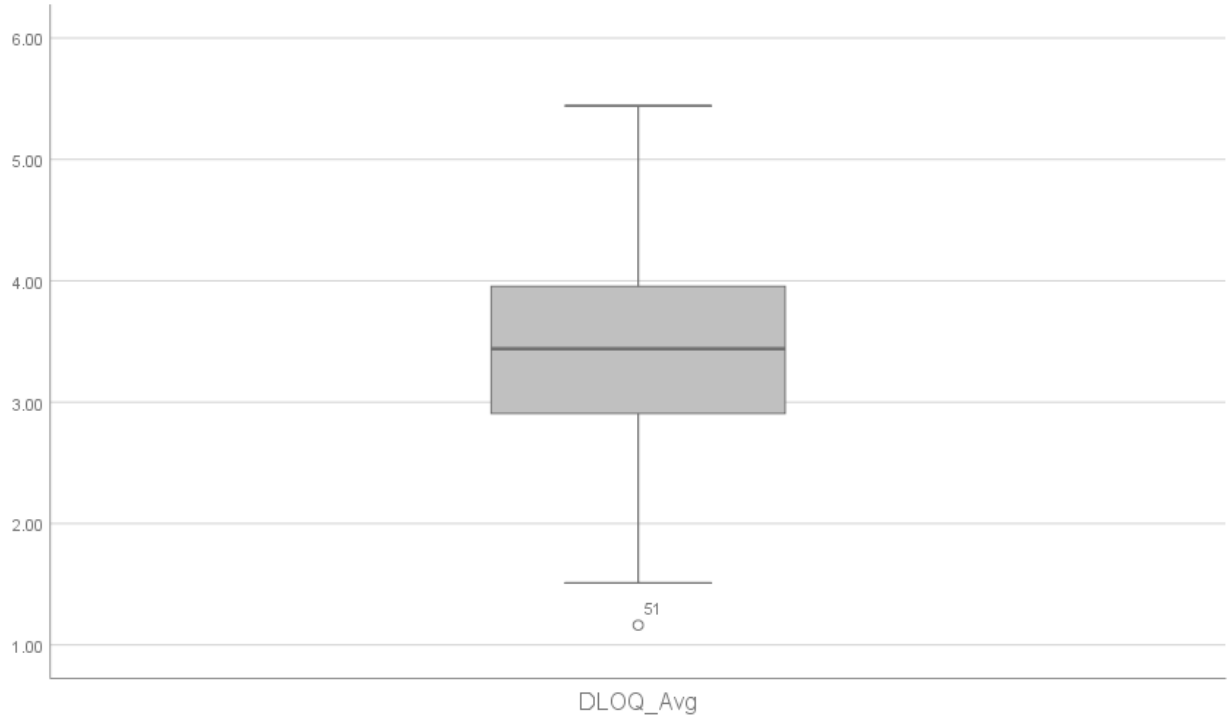
a. Lilliefors Significance Correction



Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	*N*
.940	.941	7


Detrended Normal Q-Q Plot of DLOQ_Avg
Dev from Normal
0.2
0.1
0.0000
-0.1
-0.2
-0.3
-0.4
1
2
3
4
5
6
Observed Value


6.00
5.00
4.00
3.00
2.00
1.00
51
DLOQ_Avg

Appendix B: Cronbach's Alpha for the Full DLOQ Scale

Full DLOQ Scale Mean Score Stem-and-Leaf Plot

Frequency	Stem & Leaf
1	Extremes (=<1.2)
9	1 . 556778999
10	2 . 0012223333
25	2 . 5555566667777777888888999
42	3 . 000000000000111111111222233333333333334444
41	3 . 55555555555556666667777888888888889999999
32	4 . 00000000111112222222223333333344
5	4 . 56678
3	5 . 014

Stem width: 1.00
Each leaf: 1 case(s)

Appendix C: Institutional Review Board Approval Notice

ST. CLOUD STATE UNIVERSITY
EDUCATION FOR LIFE.

Institutional Review Board (IRB)

720 4th Avenue South AS 210, St. Cloud, MN 56301-4498

Name: Kasey Linde

Email: krlinde@stcloudstate.edu

IRB PROTOCOL DETERMINATION: Expedited Review-1

Project Title: Measuring Employee Perceptions of a Learning Organization during Strategic Change

Advisor Steven McCullar

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

-Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-4932 or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

IRB Chair:

Dr. Benjamin Witts
Associate Professor- Applied Behavior Analysis
Department of Community Psychology,Counseling, and Family Therapy

IRB Institutional Official:

Dr. Latha Ramakrishnan
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1815 - 2317	**Type:** Expedited Review-1	**Today's Date:** 5/9/2018
1st Year Approval Date: 5/9/2018	**2nd Year Approval Date:**	**3rd Year Approval Date:**
1st Year Expiration Date: 5/8/2019	**2nd Year Expiration Date:**	**3rd Year Expiration Date:**

Appendix D: Sample of the DLOQ Survey hosted on Qualtrics

[redacted] - Strategic Change

Measuring Employee Perceptions of a Learning Organization during Strategic Change
Implied Informed Consent

You are invited to participate in this study to determine if [redacted] College is a Learning Organization. You were selected as a possible participant because you are an employee at [redacted] This research project is being conducted by Kasey Linde as a part of her dissertation research.

This survey intends to measure your perception of learning organization dimensions present at [redacted] at this moment in time.

The survey contains 43 questions, scored using a six point Likert-scale, and four additional demographic questions. The Dimensions of the Learning Organization Questionnaire (DLOQ) is being used with consent from Watkins and Marsick (1997). Responses to each survey question are voluntary and participants will remain anonymous.

Participants are free to discontinue the survey at any time without consequence and there is no foreseeable risk involved with participation.

Demographic questions will be collected at the end, but to ensure confidentiality data will only be analyzed through group format. Individuals will not be identifiable during the analysis or results section.

To gain access to the study results, please contact Higher Education graduate office at hied@stcloudstate.edu or 320-308-4241.

For additional questions regarding the reserach, please contact Kasey Linde at krlinde@stcloudstate.edu.

Your continuation and completion of the study indicates that you are at least 18 years of age and consent to participate in this study.

◯ I give consent and wish to participate in this study

People openly discuss their own mistakes in order to learn from them.

Almost Never - 1	2	3	4	5	6 - Almost Always

People identify skills they need for future work tasks.

Almost Never - 1	2	3	4	5	6 - Almost Always

People help each other learn.

Almost Never - 1	2	3	4	5	6 - Almost Always

People can get money and other resources to support their learning.

Almost Never - 1	2	3	4	5	6 - Almost Always

People are given time to support learning.

Almost Never - 1	2	3	4	5	6 - Almost Always

People view problems in their work as an opportunity to learn.

Almost Never - 1	2	3	4	5	6 - Almost Always

People are rewarded for learning.

Almost Never - 1	2	3	4	5	6 - Almost Always

People give open and honest feedback to each other.

1 - Almost Never	2	3	4	5	6 - Almost Always

People listen to others' views before speaking.

1 - Almost Never	2	3	4	5	6 - Almost Always

People are encouraged to ask "why" regardless of rank.

1 - Almost Never	2	3	4	5	6 - Almost Always

Whenever people state their view, they also ask what others think.

1 - Almost Never	2	3	4	5	6 - Almost Always

People treat each other with respect.

1 - Almost Never	2	3	4	5	6 - Almost Always

People spend time building trust with each other.

1 - Almost Never	2	3	4	5	6 - Almost Always

Programs have the freedom to adapt their goals as needed.

Almost Never - 1	2	3	4	5	Almost Always - 6

Programs treat members as equals, regardless of rank, culture, or other differences.

Almost Never - 1	2	3	4	5	Almost Always - 6

Programs focus both on the task and on how well the department/program is working.

Almost Never - 1	2	3	4	5	Almost Always - 6

Programs revise their thinking as a result of discussion or information collected.

Almost Never - 1	2	3	4	5	Almost Always - 6

Programs are rewarded, i.e., through position lines, budget money, etc., for their achievements as a program.

Almost Never - 1	2	3	4	5	Almost Always - 6

Programs are confident that the college will act on their recommendations.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college enables people to get needed information at any time quickly and easily.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college maintains an up-to-date data base of faculty research expertise.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college supports systems, i.e., annual reviews, to measure gaps between current and expected performance.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college makes its lessons learned available to all employees.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college measures the results of the time and resources spend on professional development.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college recognizes people for taking initiative.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college gives people choices in their training, advising and committee assignments.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college invites people to contribute to the college's vision.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college gives people control over the resources they need to accomplish their work.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college supports people who take calculated risks.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college builds alignment of visions across different levels and work groups.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college helps employees balance work and family.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college encourages people to think from a global perspective.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college encourages everyone to bring the students' views into the decision making process.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college considers the impact of decisions on morale.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college works together with the outside community to meet mutual needs.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college encourages people to get answers from across the college when solving problems.

Almost Never - 1	2	3	4	5	Almost Always - 6

My college leaders generally support requests for learning opportunities and training.

Almost Never - 1	2	3	4	5	Almost Always - 6

In my college, leaders share up to date information with people about directions taken by other peer or aspirant colleges.

Almost Never - 1	2	3	4	5	Almost Always - 6

In my college, leaders empower others to help carry out the college's vision.

Almost Never - 1	2	3	4	5	Almost Always - 6

In my college, leaders mentor and coach those they lead.

Almost Never - 1	2	3	4	5	Almost Always - 6

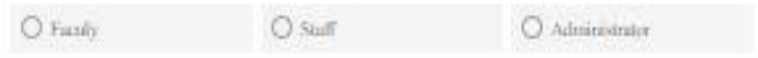
In my college, leaders continually look for opportunities to learn.

Almost Never - 1	2	3	4	5	Almost Always - 6

In my college, leaders ensure that the college's actions are consistent with its values.

Almost Never - 1	2	3	4	5	Almost Always - 6

What is your current role?



How long have you been employed with Gustavus?

What is your highest degree attained?

What is your gender?