CAMPUS HOUSING DEPARTMENTS AS LEARNING ORGANIZATIONS:

ASSESSING LEARNING CULTURE AND ORGANIZATIONAL PERFORMANCE

by

ELIZABETH M. COX

(Under the Direction of Karen E. Watkins)

ABSTRACT

The purpose of this study was to examine the learning culture in campus housing departments and assess its relationship to organizational performance. The research questions guiding this study looked at (1) the extent to which campus housing departments exhibited the characteristics of a learning organization; (2) how perceptions of the learning organization differed by institutional type, organizational structure, reporting lines, and involvement in a public-private partnership; (3) how perceptions of organizational performance differed by institutional type, organizational structure, reporting lines, and involvement in a public-private partnership; (4) the extent to which the learning organization explained variance in organizational performance; (5) and which dimensions of a learning organization contributed most to organizational performance.

This study used an adapted version of Watkins and Marsick's (1997) 21-item Dimensions of a Learning Organization Questionnaire (DLOQ). The survey asked respondents about learning culture, organizational performance, and institutional characteristics. Learning culture was measured through the seven dimensions of *continuous learning opportunities, promotion of dialogue and inquiry, collaboration and team learning, empowerment towards a shared vision,*

embedded learning systems, system connections to the environment, and strategic leadership for learning. This study used financial performance, knowledge performance, and educational performance to measure organizational performance. Respondents were Senior Housing Officers (SHO) at colleges and universities in the United States. The data were analyzed using descriptive statistics, multivariate analysis of variance (MANOVA), and multiple regression.

This study reaffirmed the positive relationship between the learning organization and organizational performance. All bivariate dimensions correlations were significant and positive except one ($p<.01$). The overall model found that all seven dimensions of a learning organization collectively predicted financial performance ($F(7,201)=3.91$, $p=.000$), knowledge performance ($F(7,201)=3.68$, $p=.001$), and educational performance ($F(7,201)=6.48$, $p=.001$). *Embedded systems to capture and share learning* and *strategic leadership* were the two significant predictors for financial, knowledge, and educational performance.

The study validated the DLOQ in a new context of campus housing departments, and it introduced a holistic perspective of performance to housing departments. It introduced a practical theory and instrument with the DLOQ. This study took the learning organization from concept to concrete strategy for housing departments.

INDEX WORDS: Learning organization, financial performance, knowledge performance, educational performance, higher education, campus housing, organizational development

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DEDICATION

"It took a little step, a right, then a left, and a couple million more, but who's counting?

It was only a mountain"

-*The Mountain*, Dierks Bentley

To everyone who has helped me climb this mountain.

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CHAPTER 1

INTRODUCTION

Is the traditional residential college experience worth the price? What programs and services contribute to college student success? These questions continue to spread across American higher education (Porterfield, Roper, & Whitt, 2011; Sterk, 2018; Woodard & Komives, 2003). Decreased government support, increasing accountability, declining revenues, and growing costs fuel these challenges (Schuh, 2016; Woodard & Komives, 2003). Higher education institutions must demonstrate student success and fiscal responsibility (Kinzie, 2011; Mallory & Clement, 2016). Additionally, colleges are asked to attract, retain, and graduate more students. Lower funding and higher accountability push institutions to examine how they are doing business (Kinzie, 2011; Mallory & Clement, 2016; Schuh, Jones, & Harper, 2011).

Financial, political, and technological demands trickle down to administrative units such as campus housing (McCuskey, 2013). Housing departments need to "fully support the institutional academic mission and impact retention" (McCuskey, 2013, p. 183). Campus housing departments need organizational capabilities to manage changing technology, aging facilities, diversifying student populations, and a renewed critical look at the traditional college degree (Kuk, Banning, & Amey, 2010). To succeed in the higher education's current climate, student services need to take charge of their own future and become more agile organizations (Kuk, Banning, and Amey, 2010).

Campus housing departments manage on-campus residence halls and educational programs (Blimling, 1993, 2001; Bradley, 2013). These departments also are responsible for

students who live on-campus (Blattner, Cawthon, Baumann, 2013; Frederiksen, 1993). In this study, these departments are referred to as "campus housing" or "housing."

The learning organization is one strategy to keep up in the chaos of change (Kezar, 2017). A learning organization embeds learning into its genome through people and structures (Watkins & Dirani, 2013). Senge (1990) saw a learning organization as a place where "people continually expand their capacity…and are continually learning how to learn together" (p. 3). Senge (1990) popularized the term learning organization through his work *The Fifth Discipline*. For Senge (1990), a learning organization is sustained through the five disciplines. These disciplines equip people to learn as an organization. Garvin (1993) presented a learning organization model as knowledge put into action. Garvin's model emphasized individual learning on the organization's behalf. Both Senge (1990) and Garvin (1993) highlighted leveraging individual learning for the organization. However, learning happens beyond individuals in organizations. Goh (1998) expanded on Garvin through a strategic lens with a focus on organizational vision and culture. Goh similarly emphasized people learning together and sharing knowledge. Örtenblad (2004) identified four aspects of a learning organization. Each aspect represented different ways learning should be present in an organization. Watkins and Marsick (1993) defined a learning organization as an organization which regularly learns and develops. Watkins and Marsick's (1993, 1996) integrated model provides the theoretical framework for this study. This model is not an exact recipe, rather it proposes a "template" for a learning organization (Marsick & Watkins, 1994, p. 354).

Becoming a learning organization can help housing departments meet future demands. However, the learning organization has been scarcely present in the empirical literature of student affairs and campus housing. The learning organization has appeared in student affairs

through Senge's five disciplines (Brown, 1997; Henning, 2018; Kezar, 2011; Kuh, 2003). In the seminal work *Student Services: A Handbook for the Professio*n, Kuh (2003) offered the learning organization as a post-conventional metaphor to explore organizational behavior. Kuh (2003) also advocated for the implementation of Senge's five disciplines to become a learning organization. The most recent version of the student services handbook continued to appeal for organizations to adopt the learning organization to make better data-driven decisions (Kezar, 2017). Student affairs and campus housing literature do not give in-depth advice on how to become a learning organization. Instead, the literature has focused on high-level conceptual suggestions without empirical assessments or data about being a learning organization. An electronic literature search through EBSCO Database and Google Scholar, using a combination of terms "learning organization" and "campus housing," "student housing," and "university housing," yielded no results.

Watkins and Marsick's (1993, 1996) learning organization model provides a cohesive construct with a measurement tool. This model provides organizations with scaffolding to become a learning organization. This model is structured through seven dimensions. Each dimension marks a facet of an organization's learning culture (Marsick & Watkins, 1999). The seven dimensions are *continuous learning, promotion of dialogue and inquiry, team learning, empowerment toward a shared vision, embedded systems to capture and share learning, connections to the environment, and strategic leadership* (Watkins & Marsick, 1993, 1996). Each dimension represents learning at the individual, team, and organization levels. Each dimension represents a marker of a learning organization, and together show what it means to have a learning culture.

Watkins and Marsick (1997) created the *Dimensions of a Learning Organization Questionnaire* (DLOQ) as practical assessment tool for this model. The DLOQ takes a snapshot of current perceptions of the learning culture (Marsick & Watkins, 2003). The DLOQ has been used in over 70 studies (Kim & Watkins, 2017). This survey has been used in for-profit, non-profit, military, and educational organizations (Ellinger, Ellinger, Yang, 2002; Song, Joo, & Chermack, 2009; Yang, 2003). In higher education, the DLOQ has been utilized with academic staff, administrators, and faculty (Ali, 2012; Nazari & Pihie, 2012; Yu & Chen, 2015). The DLOQ's extensive use demonstrates its continued relevance in scholarship and practice.

Leaders must see the value of learning to invest in it. Examining the impact learning has on organizational performance is one way to demonstrate its value. However, a unified definition of organizational performance is as elusive as a unified definition of a learning organization. Organizational performance is a complex and context driven construct (Richard, Devinney, Yip, & Johnson, 2009).

Even within higher education, no clear framework of performance exists at the institutional or functional unit level. This variety adds to the complexity and challenge of assessing performance in campus housing. In addition, frameworks assess performance from different levels of organizations. Some look at the whole institution while others focus on functional areas. Cameron (1978, 1981) helped operationalize performance through nine domains of institutional effectiveness. Cameron's dimensions looked institution-wide but focus on academic mission. Miller (2007) also looked at performance from an institutional level in higher education. While Cameron examined at operational areas, Miller went to assessing things like quality and effectiveness across academic and administrative units. In student affairs, authors presented assessment dimensions stemming from the history and current role of student

affairs functions (Blimling, 2001; Barham & Scott, 20006). These dimensions have helped frame but did not define performance. Professional standards provided the most specific guide for functional areas like campus housing. Professional standards have given organizations a common baseline across different programs and services (Arminio, 2009). However, standards have not solely focused on performance results. They have provided departments a way to review inputs, process, and outputs (Association of College & University Housing Officers-International [ACUHO-I], 2016; Council for the Advancement of Standards [CAS], 2015; Schuh & Upcraft, 2001).

Kaplan and Norton's (1993) seminal work *The Balanced Scorecard* (BSC) offered a holistic framework to help define organizational performance. The four BSC perspectives were financial, customer, internal process, and learning and growth. The BSC has been widely embraced and accepted in the business context (Paranjbe, Rossiter, & Pantano, 2006). This framework provided a way to evaluate frameworks and measures to find a more integrated performance definition for campus housing.

Influenced by the BSC, the DLOQ offered both dimensions and indicators for organizational performance. The DLOQ evaluated organizational performance primarily through financial and knowledge performance (Marsick & Watkins, 2003). Knowledge and financial performance are perceptual performance measures (Marsick & Watkins, 2003). Financial performance measures the financial health of the organization (Marsick & Watkins, 2003). With indicators of return on investment, time to market, and productivity, financial performance indicators do not fully apply to campus housing. The DLOQ's knowledge performance emanated from the knowledge capital literature. Knowledge performance evaluates the value of the organization's knowledge (Marsick & Watkins, 2003). It measures how well the

organization creates and uses its knowledge. Knowledge performance translates well into the campus housing context as housing professionals need to use current research and knowledge in professional practice (ACUHO-I, 2017; Blimling, 2017). Knowledge performance challenges housing departments to move beyond counting learning to see how they utilize knowledge and learning. The DLOQ performance factors present a foundation on which to build a campus housing organizational performance framework.

Through a review of the literature and a scale development process, new organizational performance factors were proposed specifically relating to campus housing. The new dimensions were administrative and educational performance. Administrative performance assessed various administrative services. This dimension stemmed from the role of campus housing as a student service (ACUHO-I, 2016; Barham & Scott, 2006). It covered operational functions such as revenue generation, occupancy management, facilities management, and crisis response. However, after a confirmatory factor analysis, administrative performance was changed to financial performance. This adapted DLOQ scale focused on the financial health of a housing department as opposed to the overall administrative performance. Educational performance measured the department's contributions to student learning and development. This dimension highlighted campus housing's task of contributing to students' educational success (Riker & Decoster, 2008). Housing department's need to continue to demonstrate contribution to student academic success (McCuskey, 2013). Campus housing departments have a complex purpose as business operations which must also contribute to student learning, development, and success. Measuring performance for a complex organization requires a multidimensional and holistic approach.

Showing the positive link between learning and performance can also help demonstrate how investing in being a learning organization can have real results for the organization. studies have consistently demonstrated a positive link between learning and performance (Watkins, 2017; Watkins & Dirani, 2013; Watkins, Kim, & Lu, 2017). In a tumultuous world, being able to capture a snapshot of learning culture and its relation to organizational performance can help campus housing departments transform themselves and remain relevant in higher education. DLOQ

Statement of the Problem

Of the over 20 million students in the United States enrolled in degree-granting institutions, more than three million, or about 15%, live in campus housing (National Center for Education Statistics [NCES], 2015). With an average budget over 25 million dollars (ACUHO-I, 2012), housing departments impact millions of dollars and students. However, housing departments are not immune to the current challenges in higher education. Campus housing departments are "challenged with incorporating new facility designs, satisfying the current and future needs of students, coping with economic demands, and accommodating cultural shifts" (Dunkel & Baumann, 2013, p. xix). These pressures come with an increased scrutiny to prove campus housing's value to the institution (McCuskey, 2013). Housing departments need to "…optimize their financial performance and their student success performance" (McCuskey, 2013, p. 119). The current climate challenges housing's capacity to adapt, change, and learn as organizations. Campus housing departments need to be learning organizations (Kuk, Banning, & Amey, 2010).

A learning organization leverages learning to increase capacity for adaptation and change (Marsick &Watkins, 1994; Senge, 1990; Sun & Scott, 2003; Watkins & Marsick, 1999). It uses

people and structures to support a learning culture (Watkins & O'Neil, 2013; Yang, Watkins, & Marsick, 2004). Scholars call for student affairs units to embrace the learning organization as a frame to guide their work (Brown, 1997; Kuh, 2003; Kuk, Banning, & Amey, 2010). However, these calls have primarily used Senge's (1990) framework. No empirical studies have been found looking at the learning culture of housing departments.

Watkins and Marsick's (1993, 2003) integrative model provides a practical framework and assessment tool. It recognizes that learning happens at all levels of the organization through seven dimension of a learning organization. These seven dimensions are measured through the Dimensions of a Learning Organization Questionnaire (DLOQ) (Marsick & Watkins, 2003; Watkins & Marsick, 1997). The DLOQ takes the pulse of the learning culture within an organization (Watkins & O'Neil, 2013). This questionnaire has been used and validated in multiple contexts including for-profit, non-profit, health care, and military (Watkins & Dirani, 2013; Yang, Watkins, & Marsick, 2003). However, the DLOQ has not been used in a campus housing context.

For campus housing, being a learning organization is not enough. Housing departments must demonstrate high performance to continue to meet stakeholders' expectations (Blattner, Cawthon, & Baumann, 2013). The DLOQ assesses both learning culture and organizational performance (Marsick & Watkins, 2003; Watkins & Marsick, 1997). The DLOQ originally used knowledge and financial performance as it main performance factors. Housing departments have significant financial responsibilities (ACUHO-I, 2017; Bradley, 2013). However, financial measures have been encompassed in a broader dimension such as business operations (ACUHO-I, 2017). The DLOQ financial performance measures are not all contextually relevant for a campus housing department. Financial performance measures needed to be adapted and

validated for campus housing. Knowledge performance measures how well an organization uses what it knows to improve (Marsick & Watkins, 2003). While knowledge performance is relevant in campus housing, these measures had not yet been validated in a campus housing context. These two performance factors had been validated across organizational and geographical contexts. However, they had not yet been validated in this context. Financial and knowledge performance do not fully capture organizational performance of a campus housing department. A review of assessment and performance literature revealed the need to adapt existing DLOQ performance factors as well as look beyond these two factors and their indicators.

Many DLOQ studies indicate positive correlations between learning and organizational performance (Ellinger, Ellinger, & Yang 2002; Ellinger, Yang, & Ellinger, 2000; Marsick & Watkins, 2003; McHargue, 2003). Linking learning and performance can help justify investing in learning at the individual, group, and system level. This correlation has not been demonstrated in campus housing departments. Campus housing departments need to be able to show the payoff for becoming a learning organization.

Purpose and Research Questions

Understanding learning culture and its relationship to organizational performance can help campus housing departments prepare for a shifting higher education landscape. The purpose of this study was to examine the learning culture in campus housing departments and assess its relationship to organizational performance. The research questions guiding this study were:

1. To what extent do campus housing departments exhibit the characteristics of a learning organization?

2. To what extent do perceptions of learning organization characteristics differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
3. To what extent do perceptions of organizational performance differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
4. To what extent do dimensions of a learning organization explain observed variance in organizational performance?
5. Which dimensions of a learning organization best explain observed variance in organizational performance?

Figure 1 depicts the conceptual framework of this study. This study used Watkins and Marsick's (1997, 1999, and 2003) model of a learning organization as the theoretical foundation. The variables of this study included dimensions of a learning organization, organizational performance, and institutional characteristics. This study looked at how the learning organization relates to different dimensions of organizational performance, and how perceptions of culture and performance may differ based on institutional characteristics. The learning organization was measured through Watkins and Marsick's seven dimensions of a learning organization. This framework initially proposed three performance factors—administrative, knowledge, and educational. These proposed factors included the original knowledge and financial performance factors from the DLOQ. In addition, it proposed educational performance as a new performance factor for this context. Through a later validation process, administrative performance was changed to financial performance as a better fit to the factor indicators.

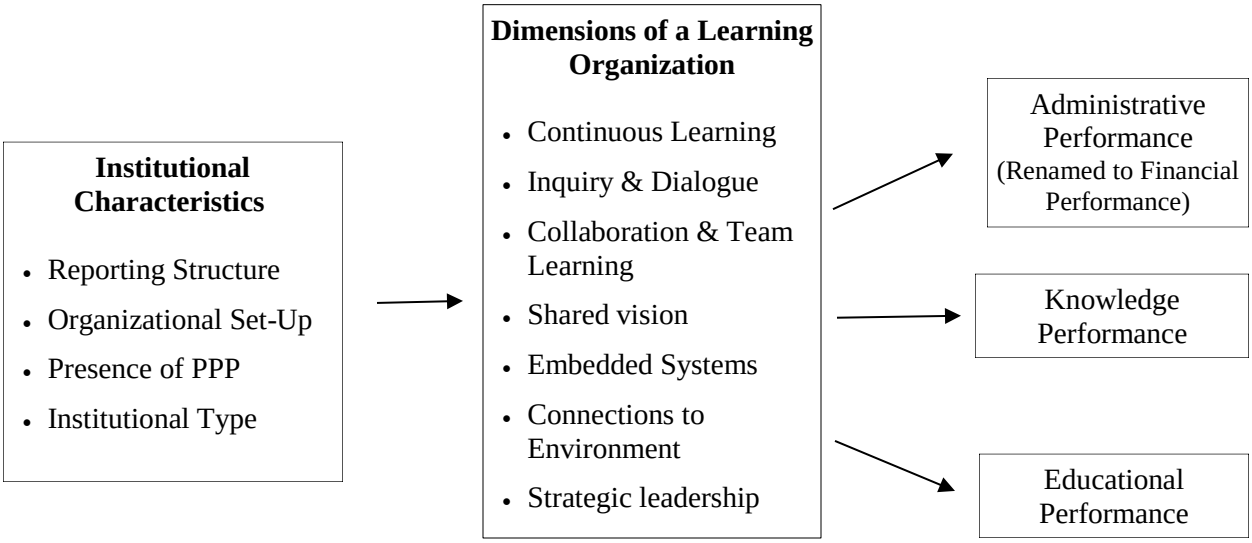


Figure 1. Conceptual Framework.

Significance of the Study

This study has theoretical, empirical, and practical significance for human resource and organizational development, student affairs, and campus housing. This study contributes to the theoretical understanding of learning organizations, organizational performance, and higher education administration. This study adds to the empirical literature of the DLOQ, student affairs, and higher education. In addition, this study could inform how housing departments and professionals understand organizational performance.

This study brings the dimensions of a learning organization model into a new context—campus housing. It gives scholars and practitioners a new way to discuss and assess organizational capacity in campus housing. No matter what the context, organizations need to be able to assess their capacity for change and adaptation. The Watkins and Marsick model provides a guiding theoretical frame as well as practical markers.

This study provides a language, tool, and data for housing departments to start those conversations. It also brings organizational development scholarship into a new arena that

benefits both scholars and practitioners. This study offers practitioners a snapshot of the learning cultures of campus housing departments from across the US. It provides a starting point for institutions to benchmark themselves against a national landscape. This study paints a picture of how institutional characteristics effect learning culture and performance. It also helps bring a common language of a learning culture into housing departments.

Housing departments will increasingly be asked to demonstrate their contributions at the departmental level to institutions (Blimling, 2013). This study brings a new understanding of performance to campus housing research. This study suggests a starting point to move beyond assessment to talk about organizational performance. While performance and assessment have been examined across higher education, no common framework of performance for housing departments exists. Financial, knowledge, and educational performance bring new ways to discuss and measure performance at the organizational level. Being able to track organizational performance will give housing professionals a way to measure performance for more effective practice.

The data in this study can be added to the existing data bank of other DLOQ studies expanding empirical research on the dimensions of a learning organization and organizational performance. This study validates the DLOQ in a new context. It provides data to illustrate the relationship of learning and performance. This data will give departments a way to demonstrate the value of becoming a learning organization empirically.

This study broadens the conversation of organizational development and administration within campus housing and student affairs administration. The demand for student affairs to be adaptable and flexible is ever increasing. The learning organization is a strategy which can help departments navigate the sea of change in higher education. Understanding the dimensions of a

learning organization may contribute to the department's capacity for change (Marsick & Watkins, 1994). Through the discussion and use of the dimensions of a learning organization, student affairs scholars and practitioners will have a common framework to discuss their organizational learning culture. This study could be used to expand the conversation about how student affairs organizations need to be adaptable and ready for the future.

Housing professionals can use this study to start to build a learning organization. The seven dimensions across the three levels scaffold a systems approach to increasing organizational capacity for change. This study offers a picture of which dimensions of a learning organization are most and least prominent in a housing department. Departmental leaders may use findings to benchmark with other institutions. Departments may also use the organizational performance factors in internal assessments. Beyond just campuses using the data, the professional associations may find this framework helpful to see where their members excel or where they may need support in becoming a learning organization. This study may lead to new workshops, competencies, and association resources. The DLOQ is more than an assessment tool. It is a starting point for organizations to see where to invest for improvement across the whole enterprise.

The Campus Housing Context

Campus housing departments are responsible for the assignment, upkeep, and experience in on-campus residence halls (ACUHO-I, 2017; Blimling, 1993). Housing and residence life are often considered a functional area in student affairs at colleges and universities. Campus housing generates revenue, supports student success, and contributes to the larger campus community (Bradley, 2013). Different functional areas within these departments may include business administration, residential life, food service, facilities, and maintenance functions

(Winston, et al. 1993). Both programs and facilities are important for campus housing's success (Schuh, 1996). A brief history of campus housing reveals a storied and complex context.

Students have lived on college campuses in the United States since the colonial period (Komives, Woodard, et al., 2016; Thelin & Gasman, 2011). Modeled after the British residential college system, colonial students in the 18th century lived on-campus as a part of their educational experience (Blattner, Cawthon, & Baumann, 2013; Frederiksen, 1993; Schuh, 1996). The residential college setup focused on a well-rounded curriculum where living and learning were a seamless experience (Frederiksen, 1993). Colleges built residential facilities because many students traveled long distances (Blattner, Cawthon, & Baumann, 2013). Campus housing departments did not exist as functional departments during the colonial period. Instead, faculty served as teachers and residential administrators while living in the buildings with the students (Coomes & Gerda, 2016; Frederiksen, 1993; Rhatigan, 2009). Institutions served as surrogate parents. They assumed responsibility for the teaching, housing, dining, and discipline (Frederiksen, 1993; Schuh, 1996; Thelin & Gasman, 2011). This was called *in loco parentis*. The prominence of residential colleges lasted until the 1860s and the beginning of the U.S. Civil War.

The influence of German higher education slowed the residential college model in the second half of the 19th century (Thelin, 2003). The German higher education system emphasized research and teaching and did not see housing students as an institutional responsibility (Frederiksen, 1993; Thelin & Gasman, 2011). Institutional focus shifted away from providing a residential experience for students.

Federal legislation paved the way for expanding campus housing between 1860 and 1960. First passed in 1862 and then expanded in 1890, *The Morill Land Grant Act* gave federal

funding for major expansions in higher education (Rhatigan, 2009). The 1862 *Morill Act* established land grant colleges aimed at growing higher education opportunities (Blattner, Cawthon, & Baumann, 2013; Rhatigan, 2009). Student housing was a common part of campus growth during this time (Blattner, Cawthon, & Baumann, 2013; Frederiksen, 1993). The 1890 *Morill Act* expanded opportunities for Black and African-American students through the establishment of Historically Black Colleges or Universities (HBCU). In addition, the law also expanded Women's colleges (Frederiksen, 1993; Thelin & Gasman, 2017). Both HBCUs and Women's colleges were often established as residential colleges (Thelin & Gasman, 2017). In the 1930s, to help the United States recover from the Great Depression, the US Federal government opened construction loans for colleges and universities (Blattner, Cawthon, & Baumann, 2013; Frederiksen, 2003). Lending drove new residence hall construction and renovation (Rentz, 1996; Schuh, 1996). In the 1950s, the GI Bill afforded veterans the opportunity to go to college (Thelin & Gasman, 2011). This meant a significant increase in college access and enrollment (Rhatigan, 2009; Thelin & Gasman, 2011). The federal government then passed legislation for construction and renovation funding of residence halls (Frederiksen, 1993). These funds supported another surge in campus housing construction from the 1950s to the 1970s (Blattner, Cawthon, & Baumann, 2013). For 100 years, growing enrollment and access to capital paved the way for campus housing expansion across the US.

After the boom of the 1960s and 1970s, campus construction slowed. Campus housing turned its attention to the programmatic efforts in the halls. In the 1980s, programs began re-connecting the residential experience to the academic experience (Frederiksen, 1993; Thelin & Gasman, 2011). Campus housing aimed to be a part of the educational experience. In the 1990s and early 2000s, campuses established living-learning communities where students could take

classes together, live with faculty, and have a unified academic experience in and outside the classroom (Coomes & Gerda, 2016; Frederiksen, 1993). This refocus has been reminiscent of the residential colleges (Blattner, Cawthon, & Baumann, 2013). Housing departments began to consider how their facilities, services, and programs contributed to overall student learning (Blattner, Cawthon, Baumann, 2013). The focus on student learning remains important today.

However, as the 1960s structures began to show their age, institutions faced financial challenges in maintaining buildings in the 21st century. This meant institutions sought outside help with services like housing. Companies from the private sector partnered with schools to relieve the financial pressure of maintaining and managing facilities. Agreements between colleges and private companies to assist with construction, management, or development are known as a Public-Private Partnership (PPP) (McCuskey, 2013). The PPP allowed schools to have safe, comfortable housing on or near campus without the financial burden (Blattner, Cawthon, Baumann, 2013; McCuskey, 2013).

Campus Housing Today

In a review of the 2014 Integrated Postsecondary Education Data System (IPEDS), Asimou (2016) offers a picture of campus housing through national data. In the United States, over 3 million residential bed spaces serve the over 20 million enrolled students (Asimou, 2016). Campus housing continues to grow nationwide as the number of beds increased between 2012 and 2014. Almost 3,000 campuses in the US offer on-campus housing (ACUHO-I, 2017). This number represents about one-third of higher education institutions in the US (ACUHO-I, 2017; Asimou, 2016). Of these campuses, 36% identified as public, 59% identified as private not-for-profit, and 5% identified as private for-profit campuses (Asimou, 2016). Twice as many private schools identify as having campus housing as did public schools (Asimou, 2016). While more

private institutions offer beds, over half of the total number of beds on campuses are located at public institutions (Asimou, 2016). More private schools are residential, but public institutions often enroll more students and maintain a larger inventory of on-campus beds.

The ACUHO-I operational survey gives insight into housing at the campus level. In this operational survey, over half of the respondents reported a live-on requirement (ACUHO-I, 2017). A live-on requirement means a portion of students must live on campus for one or more years. Campus housing's financial impact is also seen in this survey. The average annual budget reported from all institutions was $25 million (ACUHO-I, 2012). Large institutions (over 10,000 students) reported an average budget of approximately $40 million (ACUHO-I, 2012). The average expenditures were reported to be about $21 million (ACUHO-I, 2012). Housing departments are large facility, people, and financial operations.

While not all college students live in residence halls, living on-campus still impacts the overall higher education landscape in the US (Dunkel & Baumann, 2013; Schuh, 1996). Campus housing has been a part of the higher education landscape in America since its inception. The landscape today reveals housing's impact on students and institutions. Over 200 years later, campus housing returns to the focus with which it started. Campus housing is not only meant to offer safe shelter, but also to support holistic student development (Schuh, 1996). Future changes in higher education will require housing departments to meet the demands of students and stakeholders. A review of the literature will illustrate how adopting the learning organization concept can help housing departments improve organizational performance and capacity for change.

Definitions

Campus Housing Department

An administrative departments within a college/university which is responsible for the management and oversight of on-campus housing. On-campus housing includes "any residence hall or housing facility owned or controlled by an institution within the same reasonably contiguous geographic area and used by the institution in direct support of or in a manner related to, the institution's educational purposes" (National Center for Education Statistics, 2018).

Learning Organization

A learning organization is one that "learns continuously and transforms itself" (Watkins & Marsick, 1993, p. 8)

Financial Performance

Financial performance is the "state of financial health and resources available for growth" (Marsick & Watkins, 2003, p. 139).

Knowledge Performance

Knowledge performance is the "enhancement of products and services because of knowledge capacity (lead indicators of knowledge capacity" (Marsick & Watkins, 2003, p. 139).

Educational Performance

Educational performance evaluates organizational contributions to student learning and development.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this study was to examine the learning culture of campus housing departments and assess its relationship to organizational performance. This review of the literature covers campus housing administration, learning organizations, and organizational performance. First, a look at campus housing introduces housing's role and organizational structures. Next, a review of learning organizations explores how learning and organizations come together in the literature. This section also includes a description of the theoretical framework for this study. Finally, different higher education organizational performance frameworks are examined with a look at the empirical relationship between learning and performance. The literature cited in this review was found through a search of the library catalog and multiple databases. These databases included EBSCO Host, Education Research Complete, Google Scholar, ProQuest Dissertations & Theses, and Wiley Online Library.

Campus Housing Administration

In the United States, campus housing started with one organizational model—the residential college. Today, while there is not just one model for housing, common structures can be identified. This section describes the role of campus housing departments and typical organizational models.

The Role of Campus Housing Departments

Campus housing plays two significant but distinct roles. As a business unit, housing generates revenue and manages facilities (Dunkel & Baumann, 2013; Fotis, 2013). As a student

learning and development unit, housing offers educational programs and services (Fotis, 2013). Housing departments must balance business operations and student development.

Dunkel and Baumann (2013) said, "the business of campus housing is indeed just that—a business" (p. xix). Housing's capacity to generate and manage money lays the groundwork for all other operations (Bradley, 2013). Business operations include managing facilities, staff, operations, and resources (Fotis, 2013). As a unit which is financially self-sustaining, housing is often considered an auxiliary unit (Fotis, 2013). An auxiliary unit generates enough funds to cover operating costs (Barr, 2009; Bradley, 2013; Hallenbeck, 1993). In addition, institutions have increasingly relied on housing to financially support other units (Bradley, 2013; Fotis, 2013; McCuskey, 2013). This requires housing to bear a large financial responsibility reaching beyond their department. These pressures may result in financial well-being coming before educational programs (McCuskey, 2013).

The other core function of housing concentrates on student engagement, retention, persistence, and overall success (Grandner & Glowacki, 2013). Programs and services focusing on student support, learning, and success are called residence life or residential education (Schuh, 1996; Upcraft, 1993). Residence life promotes student learning and development outside the classroom (Blattner, Cawthon, & Baumann, 2013). Residence life is traditionally seen as focused on people and programs, where housing operations may focus on facilities and operations.

Institutional reporting lines may provide clues to which role is primary for a housing department (Fotis, 2013; Upcraft, 1993). If housing reports to business or administrative services, the scales may tip toward it being primarily a business unit. If housing reports through student affairs, the mission may be student development. Upcraft (1993) noted that over two-

thirds of Association of College and University Housing Officers (ACUHO-I) institutions reported to the Chief Student Affairs Officer (CSAO). In a more recent study of student affairs organizations, 81% of residence life functions reported to CSAOs compared to only 31% of housing functions (Kuk & Banning, 2009). Residence life functions live firmly in student affairs while housing operations may be more frequently associated with business services. Differing reporting lines highlight the complexity of these departments.

Maintaining balance between the business and educational roles is a challenge for any housing department. Hallenbeck (1993) argued that to be successful financially, housing departments must pay attention to programs, staffing, and facilities. Each function needs the other. Without generating revenue, housing cannot provide the educational programs and services to support students (Bradley, 2013). Without impacting student success, housing will not be considered a part of the educational mission. Institutions and stakeholders also hold housing accountable for both areas (Bradley, 2013; McCuskey, 2013).

Departmental Structures

Departmental structures demonstrate how housing manages these two main functions. Two prevalent organizational structures appear in campus housing—bifurcated and unified (Frederiksen, 1993). In addition, departments may have a public-private partnership (PPP). Each arrangement impacts the business or student development function in different ways. In the 2017 ACUHO-I operational report, respondents (N=308) reported almost an even split between unified and bifurcated systems.

A bifurcated system splits the educational programs and business operations (Fotis, 2013; Upcraft, 1993). This often results in separate departments responsible for a different function of housing. Building maintenance, room assignments, and finance are separate from the support,

programmatic, and educational pieces (Upcraft, 1993). This separation allows staff to be experts in one area and not compete for importance (Fotis, 2013; Horvath & Stack, 2013). Bifurcation can emphasize the difference in two functions as opposed to having a shared mission (Fotis, 2013). Difference can create power dynamics which impact effectiveness of the different areas (Fotis, 2013). Bifurcation can also impact departmental reporting lines. Housing and residence life may report to different leaders and even different units. A bifurcated structure may not recognize how both business and educational functions impact each other and work together in the student experience.

A unified system brings together operational and educational parts of campus housing. Building maintenance, business operations, finance, student support, and educational programming work together in one department (Fotis, 2013; Upcraft, 1993). Unification does not mean an equal balance between the business and student development roles. With significant financial responsibilities, a unified structure may prioritize business functions over student programs (Fotis, 2013; Upcraft, 1993). Upcraft (1993) maintains a unified, or integrated model, is more effective because all housing functions are under one umbrella. A unified department may be able to respond to change more quickly because it is one organization (Upcraft, 1993). With more people and resources, housing may operate independently with little reliance on other departments. This independence may isolate the department from other areas. CAS standards say unified systems best deliver programs and services students need (CAS, 2015). A unified structure is usually larger and more complex, but it brings all parts of housing and residence life under one mission (Fotis, 2013).

Unified and bifurcated systems also differ in their leadership structures. One senior leader typically leads a unified structure. This person is known as the Chief Housing Officer or

Senior Housing Officer (SHO) (Fotis, 2013). SHOs may have different titles, but the role is often the same (Horvath & Stack, 2013). This person is the senior staff member responsible for the department's overall management and leadership (Horvath & Stack, 2013). The SHO is often in a strategic position which manages the current landscape and prepares the organization for the future (Horvath & Stack, 2013). This person must know both the business and student affairs aspects of campus housing. In a bifurcated system, the leadership roles may be split by function. Housing operations and residence life may each have their own director. Each leader primarily focuses on one functional area. Both types of structures offer opportunities and challenges.

Institutional mission and context are central in determining organizational setup (Fotis, 2013). Institutional size often drives organizational set up, not whether an institution is private or public (Fotis, 2013). Larger size may mean more students, staff, and expectations from stakeholders. The functions, mission, and priorities of housing departments also impact the organizational setup (Fotis, 2013).

Beyond unified or bifurcated is the public-private partnership (PPP). A PPP is an agreement between an institution and a private company to deliver one or more services (McCuskey, 2013). This partnership may be integrated within a department or may be outside the department. In campus housing, institutional partnerships with private corporations ease the financial burden and assist in construction and facility management (Blattner, Cawthon, & Baumann, 2013; McCuskey, 2013). Agreements range from a ground lease to a full-fledged partnership (Bayless, Wilhelm, & Wills, 2013). PPPs relieve the financial burden from the system and institutions (McCuskey, 2013). PPPs continue to be more prevalent as a strategy for campus housing. In a recent ACUHO-I (2016) operational survey, 20% of respondents indicated

they were a part of a public-private-partnership. This is up five percent from 2014. While this set up does not represent the majority, it recognizes the growing financial pressure on housing departments. The PPP frees up resources, but it may also impact the department's mission.

The dual role and varied organizational structures make campus housing departments a distinctive functional area. Priorities between financial strength and student support may shift, but housing departments must continue to effectively manage complex operations. Becoming a learning organization may help meet those demands.

Learning Organizations

Learning is an essential way in which organizations keep up in a dynamic world (Garvin, 1993). Learning is also key to gaining competitive advantage (Kumar, 2005). A learning organization leverages learning to increase capacity for adaptability and change (Bass, 2000; Garvin, 1993; Senge, 1990; Marsick & Watkins, 1994). Learning generates knowledge and skills the organization can use (Kumar, 2005). This section reviews prominent learning organization models and describes the theoretical frame of this study and associated empirical literature.

The learning organization has been packaged in many ways throughout the years. Senge (1990) first popularized the learning organization through five disciplines. Each discipline represented an expertise of a learning organization (Senge, 1990). Senge's disciplines of personal mastery, use of mental models, team learning, shared vision, and systems thinking all help an organization increase learning proficiency. Similarly, Garvin (1993) described a learning organization as a place where learning changes knowledge, beliefs, and behaviors. This required a certain organizational skill set built on learning from experience, problem solving, experimentation, moving knowledge, and leadership (Garvin, 1993). Goh (1998) put a strategic

lens on Garvin through adding different components. Goh's building blocks included a clear mission and vision, culture of experimentation, prominence of teamwork, ability to move knowledge, and supportive leadership. Both Garvin and Goh present the start of a learning organization, but not how to maintain or grow it. Örtenblad (2004) took a broader perspective. Örtenblad (2004) designated a learning organization as one with the features of organizational learning, a learning climate, learning at work, and learning structures. Örtenblad widened the learning organization picture but excludes impact of the environment on the organization. Marsick and Watkins (1993, 1996) provided a more integrated and concrete perspective. They identified seven markers or dimensions of a learning organization -- *continuous learning, team learning, dialogue and inquiry, connection to the environment, empowerment toward a shared vision, systems to capture learning, and strategic leadership*. Watkins and Marsick cover all areas and levels of an organization. Each model contributes to the learning organization concept, but the variety of tenets illustrates the lack of a cohesive definition. Table 1 presents the tenets these frameworks.

Table 1

Learning Organization Tenets Across Models

Senge (1990)	Garvin (1993)	Watkins & Marsick (1993, 1996)	Goh (1998)	Örtenblad (2004)
• Team Learning • Shared Vision • Personal Mastery • Mental Models • Systems Thinking	• Leadership • Learning from Personal Experience • Experimentation • Knowledge Movement • Systematic Problem Solving	• Team Learning • Strategic Leadership • Shared Vision • Continuous Learning • Dialogue and Inquiry • Connection to Environment • Systems to Capture Learning	• Teamwork & Cooperation • Leadership for Learning • Mission and Vision • Experimentation • Transfer of Knowledge	•Organizational Learning • Learning Climate • Learning at Work • Learning Structures

Table 1 displays elements from various learning organization models. Similarities and differences can be seen in each of these models. Just looking across to identify similarities and differences does answer the question of which model best presents the learning organization. These models need to be evaluated across a broader perspective.

The "4I" Lens

Crossan, Lane, and White's (1999) "4I" model provides four lenses to examine the different models in Table 1. By using the "4I" model to examine multiple learning organization models, a practical and integrative model may rise to the top. Crossan, Lane, and White (1999) described the "4I"s as organizational learning processes. This review refers to them as domains. The four domains are intuiting, interpreting, integrating, and institutionalizing (Crossan, Lange, & White, 1999). The "4I"s included individual, group, and organizational perspectives. Different levels are foundational for a learning organization (Crossan, Lane, & White, 1999; Örtenblad, 2004; Watkins & Marsick, 1993, 1996). Frameworks with components across each domain signifies a robust learning organization model.

Each "I" represents a different domain where learning should flourish in a learning organization. Intuiting is the process of an individual recognizing and changing one's own patterns and knowledge (Crossan, Lane, & White, 1999). This domain concentrates on individual learning. Interpreting takes individual knowledge to others through sharing and conversation. Groups and teams emerge in this domain. Integrating turns knowledge into action. It also recognizes how the environment effects learning. Institutionalizing solidifies learning across the organization. It makes sure learning is a part of people and systems. Crossan, Lane, and White (1999) identify this domain as the organizational perspective of learning. Each domain covers an important piece of a learning organization. Looking at

learning organization models through the "4I" lens identifies the focus and priorities of each model.

Table 2
Learning Organization Characteristics across the 4 I model

Crossan, White, & Lane (1999)	Senge (1990)	Garvin (1993)	Goh (1998)	Örtenblad (2004)	Watkins & Marsick (1993, 1996)
Intuiting	• Personal Mastery	• Learning from personal experience		• Organizational Learning	• Continuous Learning
Interpreting	• Mental Models	• Supportive environment		• Learning Climate	• Dialogue and Inquiry • Connection to Environment
Integrating	• Team Learning • Shared Vision	• Systematic Problem Solving • Encourage Experimentation • Knowledge Movement	• Common Mission and Vision • Experimentation • Teamwork & Cooperation • Transfer of Knowledge	• Learning at Work	• Shared Vision • Team Learning
Institutionalizing	• Systems Thinking	• Leadership	• Leadership for Learning	• Learning Structures	• Strategic Leadership • Systems to Capture Learning

Intuiting. Intuiting emphasizes individual learning, understanding, and growth (Crossan, Lane, & White, 2003). In the intuiting domain, individuals expand their knowledge, skills, and experience to help the organization. Senge's (1990) disciplines of personal mastery and mental models are examples of intuiting. Personal mastery is a desire to constantly learn and increase self-understanding (Senge, 1990). Another foundation of intuiting is recognizing one's own thoughts and assumptions (Crossan, Lane, and White, 1999). Senge (1990) called this discipline recognizing mental models. Mental models are our assumptions about the world (Senge, 1990). Recognizing and changing mental models enhances our learning capacity (Senge, 1990). Having multiple learning opportunities helps develop personal mastery and changes mental models.

Watkins and Marsick (1993, 1996) name this continuous learning opportunities. Continuous learning means learning is happening constantly and in different ways (Watkins & Marsick, 1993, 1996). Personal mastery, continuous learning, and mental models help people learn from their own experience. For Garvin (1993), learning from experience is a learning organization skill. These examples of individual learning are examples of organizational learning (Örtenblad, 2004). Organizational learning occurs as individuals learn within the organization (Örtenblad, 2004). Intuiting is found in all the presented models, except Goh. Goh's strategic lens leans towards groups and the organization. A learning organization should support individual learning.

Interpreting. Interpreting filters individual learning through people and environments to spread learning across the organization. Interpreting promotes shared understanding (Crossan, Lane, & White, 1999). For Senge (1990), mental models are about interpreting assumptions through people and experiences. Assumptions cannot be challenged if they remain in isolation. Watkins and Marsick spur on this process through the *dialogue and inquiry* dimension. Groups interpret together through discussions (Watkins & Marsick, 1993, 1996). Interpreting also recognizes the impact of the internal and external environment (Crossan, Lane, & White, 1999). Watkins and Marsick (1993, 1996) include c*onnection to the external environment* as a learning organization marker. External connections improve understanding of what is happening outside the organization. Garvin (1993) argues the organizational environment should support learning and conversation. People need to feel safe, appreciate difference, and be open to new ideas (Garvin, 1993). Örtenblad (2004) called a supportive learning environment a learning climate. Interpreting means people learn by looking outside themselves and their organization.

Integrating. Integrating weaves learning into the organization and turns it into practical action. Learning organizations recognize that people work and learn in groups and integrate experience and knowledge through teams. Team learning is a common characteristic in many learning organization models (Goh, 1998; Senge, 1990; Watkins & Marsick, 2003, 2006). Beyond *team learning*, people should learn in real time and settings in a learning organization (Örtenblad, 2004). Örtenblad (2004) named this the learning at work perspective. Through this practical action, people immediately integrate learning into their work (Örtenblad, 2004). Garvin (1993) represented integrating through systematic problem solving, experimentation, and transferring knowledge quickly. Experimentation offers chances to test new ideas (Garvin, 1993). Systematic problem solving takes on challenges using processes and data (Garvin, 1993). Transferring knowledge spreads learning throughout the organization. Integrating also included having a shared mission and vision (Crossan, Lane, and White, 1999). Common and clear mission is another common element across models (Goh, 1998; Senge, 1990; Watkins & Marsick, 1993, 1996). A shared mission keeps people moving in the same direction (Goh, 1998; Senge, 1990; Watkins & Marsick, 1993, 1996). The integrating domain contains the most characteristics from these models (Garvin, 1993; Senge, 1990; Watkins & Marsick, 1993). Authors agree learning should be integrated and shared in a learning organization.

Insitutionalizing. Insitutionalizing ensures learning is present in the principles, processes, and parts of an organization. For Senge (1990), institutionalizing began with systems thinking. Systems thinkings requires an organization to see itself as a set of interdependent parts (Senge, 1990). Systems thinking sets the stage for instutionalizing knowledge beyond individuals. Systems thinking is one of Senge's most significant contributions to the learning organization. Embedded systems that capture and share learning is another example of

institutionalizing (Watkins & Marsick, 1993,1996). Embedded systems help ensure knowledge remains as people change (Watkins & Marsick, 1993,1996). Systems and structures help safeguard learning as people move in and out of organizations. Embedded systems are a part of what Örtenblad (2004) calls learning structures. Institutionalizing needs advocacy through leadership. Leaders advance learning through role modeling, assigning resources, and sponsoring learning (Watkins & Marsick, 1993, 1996). Leadership for learning is an important element in learning organization models (Garvin, 1993; Goh, 1998; Watkins & Marsick, 2004). Leadership supportive of learning is vital (Garvin, 1993; Watkins & Marsick, 1993, 1996). Senge (1990) did not explicitly identify leadership as one of his five disciplines, but sees leaders as responsible for learning in a learning organization. Institutionalizing learning through different efforts means learning continues as the organization changes.

Table 2 illustrates how each model's characteristics fall across the "4-I" s. A comprehensive learning organization model has characteristics consistently across all four domains. These models show the least characteristics in the intuiting domain. Learning organization models may focus less on individual needs and more on group and organizational elements. Goh (1998) misses two domains. Goh's elements focus on organizational level strategy missing the intuiting and interpreting domains. Intuiting and interpreting are necessary for people to make meaning of learning and utilize what they learn. A learning organization sees the importance of both people and structures. Both Marsick and Watkins (1993, 1996) and Örtenblad (2004) include people and structures, making these models more holistic. However, Örtenblad's perspectives do not include environmental effects on the organization. Watkins and Marsick's (1993, 1996) model gives both encompassing dimensions and offers practical

indicators with each domain. None of these models truly create an integrative holistic model of a learning organization that compares to the Watkins and Marsick Model.

Watkins and Marsick's *Dimensions of a Learning Organization*

Watkins and Marsick (1993) define a learning organization as one that "continuously learns and transforms itself" (p. 8). A learning organization constantly expands organizational capacity for growth and learning through people and structures (Yang, Watkins, & Marsick, 2004). The models above may offer similar definitions, but they do not provide actionable and practical ways to measure the learning culture. Watkins and Marsick's (1993, 1996) *Dimensions of a Learning Organization* offers a concrete and validated model. Over the past twenty years, this integrative approach has achieved extensive attention and use. This model highlights learning at the individual, team, and organizational levels through people and structures (Watkins & Marsick, 2003; Yang, 2003). Figure 2 shows how the dimensions fit within different levels of an organization. In addition, this model offers a reliable instrument which helps organizations evaluate their learning culture. The dimensions are easy to understand for practitioners and empirically valid for scholars. Therefore, it is the theoretical framework for this study. Watkins and Marsick (2003) identified seven dimensions which act as signs of a strong learning culture. The dimensions are *continuous learning opportunities, promotion of dialogue and inquiry, collaboration and team learning, empowerment towards a shared vision, embedded learning systems, system connections to the environment, and strategic leadership for learning*. Each dimension represents a significant piece of the learning organization puzzle.

The dimensions denote learning at various levels. At the individual level, learning occurs routinely in everyday work settings (Marsick & Watkins, 1994; Watkins & Marsick, 1993). The dimensions of *continuous learning* and *dialogue and inquiry* capture this idea. *Continuous*

learning encourages a learning habit in an organization. *Continuous learning* is formal, informal, and incidental (Marsick & Watkins, 2001). Formal learning includes professional development activities, workshops, and classes. Informal learning does not necessarily have a formal structure. Examples of informal learning are mentoring and coaching (Watkins & Marsick, 2001). Incidental learning happens when people learn something without fully intending or recognizing it (Watkins & Marsick, 2001). Incidental learning may occur through reflection or conversation. *Continuous learning* means learning does not have a stop and start button. *Dialogue and inquiry* is another learning marker for the individual level. *Dialogue and inquiry* refers to the organization's conversation culture. Through *dialogue and inquiry* individuals learn by asking questions and talking with others. In this dimension, people are encouraged to learn from their mistakes. Individuals in a learning organization should learn through experiences and interactions.

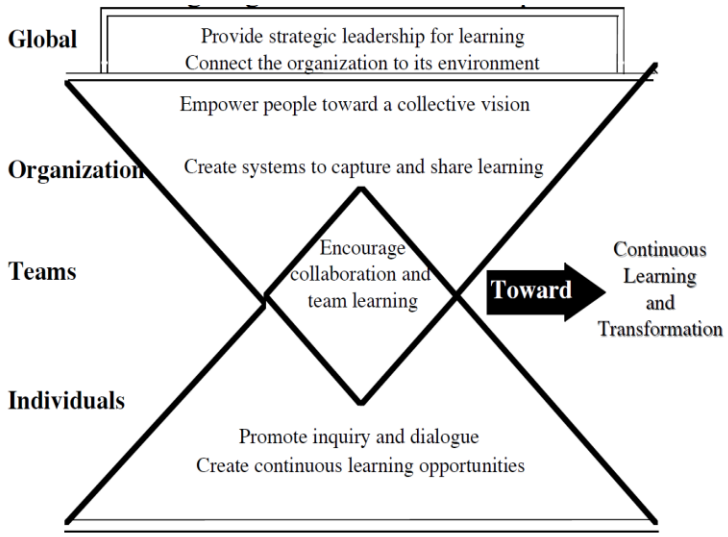


Figure 2. Dimensions of a Learning Organization Model. From Watkins and Marsick (1997, 2012). Reprinted with permission.

In organizations, people often do not work alone, but in teams. Watkins and Marsick highlight this in the dimension of *collaboration and team learning*. *Collaboration and team*

learning are opportunities for people working together to solve challenges, brainstorm new ideas, and learn from different perspectives. *Collaboration* encourages trust-building and working together. *Team learning* promotes the skills of listening and dialogue to recognize, review, and revise assumptions (Watkins & Marsick, 1993). This dimension shows a learning organization goes beyond just individual learning as teams harness their learning together.

Learning also happens at the organization and global levels. The organization level dimensions include *embedded systems that capture and share learning, empowerment toward a shared vision, connection to the environment, and strategic leadership*. *Embedded systems that capture and share learning* are structures which support and capture learning (Watkins & Marsick, 1993). These systems help ensure knowledge is available across time, people, and place in an organization. In addition, a learning organization galvanizes people toward a common mission and vision (Watkins & Marsick, 1993). *Empowerment towards a shared mission and vision* makes sure everyone is headed in the same direction. Learning organizations do not work in a vacuum. A learning organization identifies how internal and external environment impact its work. This dimension is called *connection to the environment* (Watkins & Marsick, 1993, 1996). Finally, the seventh dimension realizes the importance of *strategic leadership* in a learning organization. Leaders are lead learners. Leaders are the ones who "model, champion, and support learning" (Marsick & Watkins, 1994, p. 139). These organization level dimensions recognize the importance of the big pictures perspective in a learning organization.

Table 3
Dimensions of a Learning Organization Description

Group	**Dimension**	**Description**
Individual	Continuous Learning	Continuous learning opportunities are offered formally and informally so that people can learn on the job.

Individual	Promote Inquiry & Dialogue	People are encouraged to express their views and engage in inquiry and conversation; the culture supports feedback, questions, and risk taking.
Group	Team Learning & Collaboration	Opportunities to work in groups are provided and collaboration is encouraged and expected.
Organization	Empowerment toward a shared vision	Members are involved in creating and setting a common vision and goals.
Organization	Embedded systems to capture and share learning	Resources and systems are in place to support and capture learning.
Organization	Connections to environment	Members recognize how their work and the environment are connected and influenced by each other.
Organization	Strategic Leadership	Leadership that models, advocates, and champions learning.

Adapted from (Yang, 2003)

Dimensions of a Learning Organization Questionnaire. Watkins and Marsick (1997) developed the *Dimensions of a Learning Organization Questionnaire* (DLOQ) as a tool to measure learning culture and validate their model (Watkins & O'Neil, 2013). The DLOQ has been used in different contexts, countries, and languages (Kim, Egan, Tolson, 2015; Kim, Watkins, & Lu, 2017; Watkins & Dirani, 2013). The DLOQ has also been shown to be valid and reliable across contexts and organizations (Marsick & Watkins, 2003; Yang, 2003; Yang, Watkins, & Marsick, 2004). DLOQ research contexts have included non-profit, public health, military, and educational organizations (Aydin, Guclu, & Pisapia, 2015; Stothard, Talbot, Drobnjak, & Fischer, 2013; Watkins, Milton, & Kurz, 2009). The DLOQ has not had as extensive use in higher education as it has in other contexts.

The original DLOQ has 43 items. Later, a 21-item version was developed using Confirmatory Factor Analysis (CFA) (Yang, 2003). Each item indicates a characteristic for one of the seven dimensions (Watkins & Marsick, 1997). The DLOQ also includes perceptual organizational performance measures (Watkins & Marsick, 1997; Marsick & Watkins, 2003).

Organizational performance is discussed in a subsequent section of this review. Including performance not only helps with concurrent validity, but also shows the positive effects of a learning (Yang, 2003). The DLOQ is a helpful tool for both scholars and practitioners.

The DLOQ is not without its critiques. Looking at 35 studies including articles, dissertations, and conference papers, Kim, Egan, and Tolson (2015) raise construct validation issues with the DLOQ. Kim, Egan, and Tolson (2015) question the DLOQ's validation saying it was not built on the proper sequencing and use of factor analysis. Their meta-analysis does not challenge the previous research using the DLOQ but cautions researchers on the use of factor analysis in future research (Kim, Egan, & Tolson, 2015). Watkins and Dirani (2013) reminds readers the DLOQ only measures perceptions. They advocate for additional measures alongside the DLOQ. These critiques are a reminder of construct examination when using the DLOQ.

Empirical DLOQ Studies

While DLOQ studies are present in higher education much of the DLOQ research has occurred outside education (Song, Chermack, Kim, 2013). In higher education, the DLOQ has been predominantly used outside the United States. Studies have been conducted in Europe, Asia, Middle East, and North America. This review includes two studies from Asia, two from the Middle East, two from Europe, and one from North America. Holyoke, Sturko, Wood, and Wu (2012) are the only study from the United States included. Additional DLOQ research would enhance the understanding of learning organization perceptions in higher education, particularly in the United States. Table 4 shows DLOQ respondents from higher education.

Table 4
DLOQ Higher Education Studies Locations and Respondents

Author	**Country**	**Respondents**
Akhtar et al. (2011)	Pakistan	Faculty & Administrative Staff
Ali (2012)	Malaysia	Academic Staff
Holyoke, Sturko, & Wood (2012)	USA	Faculty

Nazari & Pihie (2012)	Iran	Faculty
Rus, Chirick, Ratju, & Baban (2014)	Romania	Staff, Students, Teachers
Voolaid &Ehrlich (2012)	Estonia	Managerial, Teaching, & Administrative Staff
Yu & Chen (2015)	Taiwan	Librarians

A variety of respondents have been found in DLOQ higher education studies. Respondents include faculty and staff from mostly academic areas (Ali, 2012; Holyoke et al., 2012; Nazari & Pihie, 2012; Ponnuswamy & Manohar, 2014). Respondents held managerial, teaching, research, and administrative roles (Ali, 2012; Holyoke et al., 2012; Nazari & Pihie, 2012; Voolaid & Ehrlich, 2012). The variety of respondents also presents challenges when examining higher education studies. Few DLOQ studies utilize institution-wide respondents at a college or university. No studies include campus housing staff. Only Yu and Chen (2015), in their work with librarians, focused on one functional area. More data from internal units may offer insight into how learning cultures differ within colleges and universities. Cross-sectional studies of functional areas across multiple universities may help provide understanding of a functional area's perceptions of their learning culture. Gaps remain in DLOQ samples in higher education based on location and types of respondents.

Looking at empirical results from DLOQ studies reveals how the learning organization concept is perceived within and outside higher education. Watkins and Dirani's meta-analysis brought together a large data set offering a glimpse into the larger learning organization picture.

Watkins and Dirani (2013) compared DLOQ data from 28 different organizations across five countries. Examining the Watkins and Dirani (2013) meta-analysis data with higher education DLOQ studies provides a sense of how higher education perceives itself as a learning organization compared with other types of organizations. Figure 3 shows means for each dimension across studies.

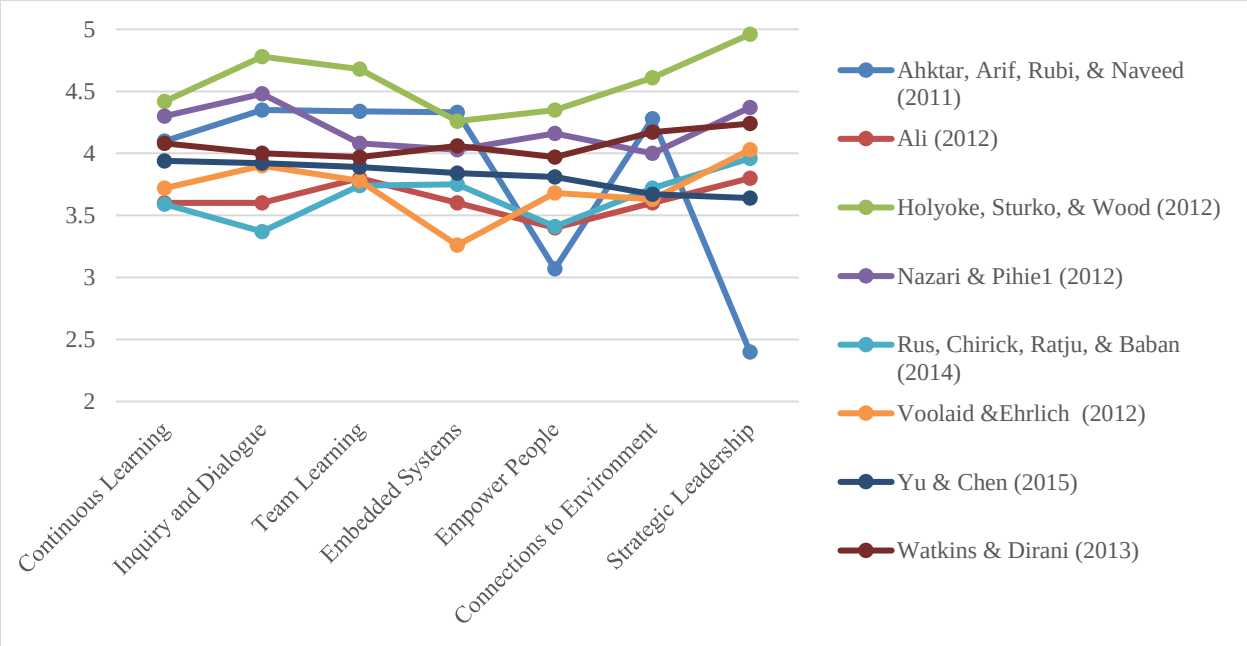


Figure 3. Reported means of selected published DLOQ studies.

Figure 3 indicates Holyoke et al. (2012) as the only higher education study with overall dimension perceptions higher than Watkins and Dirani's (2013) meta-analysis. Holyoke et al. (2012) argued perceptions may be higher because of the context. Respondents saw more learning organization characteristics because they are in an educational institution. Other higher education challenge that argument. DLOQ studies in Figure 3 show lower scores than the meta-analysis. Watkins and Dirani (2013) also reported consistent high and low perception of individual dimensions in their meta-analysis. Figure 3 shows the pattern discontinues in these higher education studies. High and low dimensions vary among the individual higher education studies. Culture and geographic context may impact findings, but there is not enough data to draw conclusions.

Commonalties and differences between contexts also appear at the individual dimension level. Table 2 presents individual means of each dimension across the studies. Multiple DLOQ studies rated *strategic leadership* as the highest dimension (Ali, 2012; Holyoke et al., 2012; Rus

et al., 2014; Voolaid & Ehrlich, 2012). This finding mirrors Watkins and Dirani (2013). Strong perceptions of *strategic leadership* carry across geography and context. On the other end, *empowering people toward a shared vision* received the lowest ratings in the meta-analysis and two higher education studies (Ali, 2012; Akhtar et al., 2011; Watkins & Dirani, 2013). This may indicate even with strong perceptions of leadership, it does not guarantee people are all going in the same direction.

Table 5

Higher Education DLOQ Studies with reported means

Authors	Akhtar et al. (2011)	Ali (2012)	Holyoke, Sturko, & Wood (2012)	Nazari & Pihie (2012)	Rus, Chirick, Ratju, & Baban (2014)	Voolaid &Ehrlich (2012)	Yu & Chen (2015)	Watkins & Dirani (2013)
Country	Pakistan	Malaysia	USA	Iran	Romania	Estonia	Taiwan	Various
Respondents	Faculty & Administrative Staff	Academic Staff	Faculty	Faculty	Staff, Students, Teachers	Managerial, Teaching, & Administrative Staff	Librarians	
N =	99	214	59	295	536	84	478	7954
Continuous Learning	4.1	3.6	4.42	3.69	3.59	3.72	3.94	4.08
Dialogue and Inquiry	4.35	3.6	4.78	3.78	3.37	3.9	3.92	4.00
Team Learning	4.34	3.8	4.68	3.47	3.74	3.78	3.89	3.97
Embedded Systems	4.33	3.6	4.26	3.43	3.75	3.26	3.84	4.06
Shared Vision	3.07	3.4	4.35	3.53	3.41	3.68	3.81	3.97
Connections to Environment	4.28	3.6	4.61	3.4	3.72	3.63	3.67	4.17
Strategic Leadership	2.40	3.8	4.96	3.72	3.96	4.03	3.64	4.24

Note: [1] This is on 5-pt. Likert Scale where all other studies were a 6-pt. scale.

Table 5 also demonstrates a need for additional studies. In Watkins and Dirani's (2013) meta-analysis, the average number of respondents per organization is 285. Four studies in Table 5 have over 200 respondents, but three others do not. The sample in the United States is small

with only 59 respondents. Small samples limit useful, powerful, and relevant analysis as well as generalizability of the data (Patten, 1997). In addition, there is a need for additional cross-sectional studies as well as single organization studies. With the complexity of higher education institutions, more single institution and cross-sectional studies in functional areas will enhance the learning organization picture. More data is needed for a more complete picture of learning cultures at colleges and universities.

Organizational Performance

Evaluating organizational performance can help campus housing demonstrate success and value added. This section reviews organizational performance with a focus on higher education, student affairs, and DLOQ performance factors. First, the definition of organizational performance is examined. Next, higher education performance and assessment frameworks are reviewed using Kaplan and Norton's (1993, 1996) *Balanced Scorecard* (BSC) model. Finally, organizational performance in the DLOQ is presented. This includes exploring the empirical relationship between learning and performance.

Defining Organizational Performance

Organizational performance is a ubiquitous idea without a cohesive definition (Hamann, Schiemann, Bellora, & Guenther, 2013; Richard, Devinney, Yip, & Johnson 2009). Even as a heavily studied construct in strategic management, authors cannot agree on its definition or measures (Hamann, Schiemann, Bellora, & Guenther, 2013; Kanter & Brinkerhoff, 2013). At its core, performance signifies results. Organizational performance is the result of the organization's work (Baruch & Ramalho, 2006; Burke, 2013; Salem 2003). It is the output from organizational inputs and processes (Burke, 2013).

Some authors define organizational performance in one word. Cameron (1978) equates performance to effectiveness. Effectiveness is an organization's ability to reach its goals (Cameron, 1978; Lewin & Minton, 1986). Other authors use quality as a synonym for organizational performance (Dew, 2007; Jacoby and Dean, 2010). Quality represents value, excellence, reputation, and adherence to standards (Lagrosen, Seyyed-Heshemi & Leiner, 2004). Efficiency, growth, and profitability have also described organizational performance (Murphy, Trailer, & Hill, 1996).

However, organizational performance cannot be defined with only one result or outcome (Rogers & Wright, 1998). Organizational performance is multidimensional, context specific, and holistic (Kirby, 2005; Miller, 2007; Richard, Devinney, Yip, & Johnson, 2009). It requires multiple perspectives and measures (Kirby, 2005; Miller, 2007; Richard, Devinney, Yip, & Johnson, 2009). In the business world, financial performance has often been synonymous with organizational performance (Baruch & Ramalho, 2006; Combs, Crook, & Shook, 2005). However, organizations are held accountable for more than financial measures (Baruch & Ramalho, 2006). In higher education, student performance is often a primary indicator of organizational performance. However, organizations are held accountable for results beyond student outcomes (Henning, 2016). Relying on just one dimension limits an organization's ability to show the whole of its performance.

Within student affairs and campus housing literature, the word performance is often missing. Student affairs scholars and practitioners have talked about results as outcomes (Henning & Roberts, 2015). Like performance, outcomes provide a picture of the result (Bresciani, 2011; Henning & Roberts, 2015). In student affairs areas like campus housing, most outcomes focus on student results (e.g. learning) (Barham & Scott, 2006). However, evaluating

results outside of student outcomes are necessary (Blimling, 2013). Outcomes based assessment is the process of reviewing and assessing results (Bresciani, Gardner, & Hickmott, 2010). While outcomes-based assessment is present in student affairs areas, it is not prolific (Bresciani, 2011; ACPA/NASPA, 2010). Outcomes tend to be focused in one specific area such as. program outcomes or learning outcomes. Organizational performance looks across the whole organization. The growth of outcomes-based assessment highlights the need for additional results oriented assessment. Measuring organizational performance provides a way to enhance and broaden outcomes-based assessment.

Dimensions in Higher Education and Student Affairs

In higher education, organizational performance can be defined at the institutional, divisional, or functional level. Miller (2007) has defined an organization as a unit that is clearly defined with boundaries and common goals. Parmenter (2015) tied organizational performance to a team with a shared purpose. Organizations can be nested within each other in a single institution. Finding the right perspective helps make organizational performance more relevant and practical. Cameron (1978, 1981) and Miller (2007) considered performance from the institutional perspective. Other models looked at smaller areas like student affairs (Barham & Scott, 2006; Blimling, 2001; Schuh & Upcraft, 2001). Professional associations have focused on functional area like campus housing as an organizational unit (ACUHO-I, 2015).

Cameron (1978, 1981) and Miller (2007) gave institutional level perspectives of performance. Cameron (1981) identified nine domains of institutional effectiveness including

- student career development;
- student academic development;
- student personal development;

- resource acquisition capability;
- faculty and staff satisfaction;
- faculty development and quality;
- community interactions;
- and organizational health.

Cameron considered each domain as an integral part of institutional effectiveness. The domains span academic and administrative areas but are primarily focused at the individual level of students and faculty. The nine seemingly cover the expanse of institutional activities, but the high-level nature and individual focus of these domains may mean the nuances of organizational functions may be missed. Miller (2007), using Sink and Tuttle (1989), proposed (a) effectiveness, (b) productivity, (c) quality, (d) satisfaction, (e) efficiency, (f) and innovation as institutional performance domains. Both Miller and Cameron measured institutional performance but using two different approaches. These two approaches showed that even when measuring the same unit of analysis, methods can look very different.

Drilling down from the institutional level, student affairs assessment models offer more context specific performance ideas. In a founding document of student affairs, *The Student Personnel Point of View* (SPPV) suggests five criteria to evaluate programs and services. The criteria were (a) student satisfaction, (b) faculty satisfaction, (c) usage, (d) professional training opportunities, (e) quality of relationships and cooperation (American Council of Education [ACE]). The SPPV presented some of the first performance indicators for student affairs units like housing and residence life. The SPPV promoted the importance of demonstrating results. Over a half century later, Blimling' (2001) offers four communities of practice as possible areas of assessment. Communities of practice are described as places where organizations and

professionals can look for accepted knowledge and practices. The communities of practice presented are (a) administration, (b) student services, (c) student learning, (d) and student development. Each community represented different educational and management responsibility and traces the history of the student affairs profession. These four perspectives can be applied to functional units like housing. Barham and Scott (2006) used three paradigms as a multidimensional assessment framework. The paradigms of (a) student service, (b) student learning, (c) and development outlined three primary focus areas of student affairs. Barham and Scott seemed to combine Blimling's administration and service into student service. These two frameworks begin to show some consistency in the conversation. Both create comprehensive categories that can encompass the activities of campus housing departments. However, they still may not usefully describe all performance areas.

Looking specifically at campus housing, we see more clues of how performance might be framed. Upcraft and Schuh's (2001) assessment model offers more specific areas of assessment within a unit. For housing and residence life, Schuh and Upcraft (2001) proposed focusing assessment on (a) facilities usage, (b) needs, (c) satisfaction, (d) environment, (e) cost effectiveness, (f) outcomes, and (g) benchmarking. Campus housing has also been measuring quality through professional standards (Jacoby & Dean, 2010). Both ACUHO-I and CAS standards have presented comprehensive, context specific and peer-reviewed markers to guide departments in both internal and external assessment. However, each set of standards uses different categories. ACUHO-I has organized their standards by functional areas of (a) business/management, (b) student learning and development, (c) residential facilities, (d) dining services, (e) crisis management, (f) and public-private partnerships. CAS has used twelve categories including

- Mission;
- Program;
- Organization & Leadership;
- Human Resources;
- Ethics;
- Law, Policy, & Governance;
- Diversity, Equity, Access;
- Internal and External Relations;
- Financial Resources;
- Technology;
- Facilities and Equipment.

Standards provide general domains with specified measures. However, standards are meant as minimum expectations in personnel, processes, resources, and practices (ACUHO-I, 2017). Professionals have presented a common baseline for housing and residence life across institutions (Arminio, 2009). They have given departments a way to review inputs, process, and outputs (ACUHO-I, 2017; CAS, 2015). Even housing professional standards continue to show the lack of a common comprehensive framework as both CAS and ACUHO-I have presented similar, but not necessarily aligned categories. Standards offer a way to look across all parts of a housing operation, but only in terms of minimums not high performance.

Table 6 shows the dimensions for each model. The diversity of perspectives and categories leads to a confusing concept of organizational performance. Some frameworks have more specified domains, while others create more generalized categories. Cameron (1978, 1981) presents nine domains, but Barham and Scott (2006) only see three. The frameworks also differ

in how assessment should be organized. Some frameworks outline organizational activities, while others look at outcome descriptors. Miller (2007) provides results oriented domains like quality and satisfaction. The SPPV gives examples of criteria, but also calls for professionals to create their own measures (ACE, 1949). Common dimensions appear within the student affairs frameworks, but they still do not fully align. None of the frameworks offers a clear, holistic, and practical perspective to understand campus housing performance. Using a more comprehensive performance model to examine these frameworks such as the Balanced Scorecard may help provide insight into how housing can conceptualize performance.

Table 6

Dimensions of Higher Education Performance and Assessment Frameworks

Cameron (1978, 1981)	Miller (2007)	SSPV (1949)	Blimling (2001)	Schuh & Upcraft (2001)	Barham & Scott (2006)	CAS (2016)	ACUHO-I (2017)
Institutional	Institutional	Student Affairs	Student Affairs	Student Affairs	Student Affairs	Student Affairs	Campus Housing
• Financial Resource Acquisition • Student Personal Development • Student Satisfaction • Student Academic & Career Development • Interactions with the Community • Non-Financial Resource Acquisition • Organizational Health • Employee Satisfaction • Professional Development • Faculty Quality	• Financial Durability • Efficiency • Customer & Stakeholder Satisfaction • Quality of Processes, Leadership, Work life Innovation	• Student Satisfaction • Usage of Programs and services • Professional Training Opportunities • Faculty Satisfaction • Quality of Relationships and Cooperation	• Student Administration • Student Learning & Development • Student Services	• Cost Effectiveness • Student & Other Clientele Satisfaction • Outcomes • Climate • Tracking • Benchmarking • Professional Standards	• Student Services • Student Development • Student Learning	• Financial Resources • Program • Mission • Organization & Leadership • Human Resources • Ethics • Law, Policy, & Governance • Diversity, Equity, Access • Internal and External Relations Technology • Facilities and Equipment • Assessment	• Business/ Management • Student Learning/ Development • Residential Facilities • Dining Services • Crisis Management • Public-Private Partnership

The Balanced Scorecard Lens

In the business world, Kaplan and Norton's *The Balanced Scorecard* (BSC) is a seminal performance model. The BSC's four perspectives are comprehensive and offer ways to evaluate the strengths and weakness of higher education frameworks. The BSC sought to capture performance from all angles of organizational activities. It operationalized strategy and mission into performance dimensions and metrics (Kaplan & Norton, 1996). This model considered performance from the (a) financial, customer, (b) internal business processes, (c) learning and growth perspectives (Kaplan & Norton, 1996). Table 7 shows a synopsis of the BSC perspectives.

The four perspectives encompassed all aspects of an organization's work no matter what the context. The customer perspective measured performance based on what is important to the customer. The financial perspective examined performance from current economic measures and past financial activities. The internal business process perspective looked at the core competencies essential in achieving the organization's mission. This perspective covered core processes that may be more context specific. The fourth perspective, learning and growth measured the capacity of people and systems to adapt in a dynamic business landscape (Kaplan & Norton, 1996). Learning and growth also looked at innovation capability. Together the four perspectives link stakeholders, activities, mission, and strategy. Each BSC perspective reveals where performance measures can be adapted from available frameworks, and where they need to be developed for campus housing.

Table 7
The Balanced Scorecard Perspectives

Perspective	Measurement Area	Example Indicator
Financial	Economic Measures & Financial Activities	Revenue
Customer	Measures important to the customer	Customer Satisfaction

Internal Process	Core Business Processes and Competencies	Efficiency of Processes
Learning & Growth	Adaptability of people and systems	Number of Innovations

The Customer Perspective. The customer perspective assessed positive outcomes for the customer (Kaplan & Norton, 1993). This perspective concentrates on the organization's impact on those it serves. It also encompassed how valuable the organization is to the customer (Kaplan, 2010). Example BSC measures included customer satisfaction, retention, and attracting new customers.

Measuring satisfaction has been common in assessment models (Barham & Scott, 2006; Blimling, 2001; Cameron, 1981; Miller, 2007; Schuh & Upcraft, 2001). Miller (2007) defined satisfaction as meeting customer and stakeholder needs. Student satisfaction is the most common measure, but departments should also consider stakeholder satisfaction (Barham & Scott, 2006; Blimling, 2001; Cameron, 1981; Miller, 2007; Schuh & Upcraft, 2001). The satisfaction of campus partners, families, or staff may be a value piece of performance for a housing department.

Outside of satisfaction, student learning and development has been another common customer perspective measure. Student learning and development outcomes illustrate the value of departmental programs and services to students. Student academic success, learning, career development, and personal development are examples of learning and development have all been used as learning and development measures (Barham & Scott, 2006; Cameron, 1981; Schuh & Upcraft, 2001). Assessing learning and development from multiple angles is an important way to demonstrate the wide impact of residential education programs and services.

The BSC also included stakeholders in the customer perspective (Kaplan & Norton, 1993). For housing, stakeholders may mean community partners, families, or even campus

partners as stakeholders. Cameron's (1978, 1981) model provided examples of stakeholder outcomes focused on community engagement. Cameron included community interactions, programs, service, and overall relationship as measure of institutional effectiveness (Cameron, 1978, 1981). This example challenges housing departments to think about how performance might be measured from the perspective of internal and external partners and stakeholders. For example, effectiveness of campus partnerships or external program support. The BSC offers a wider lens of how to measure value for those who organizations serve.

The customer perspective is prominent across higher education, student affairs, and campus housing. As service-centered organizations, housing departments need to continue to include the customer perspective in organizational performance. An institution may examine whether a program, service, or department is necessary if students and stakeholders do not find value in it. In addition, departments to think beyond students.

The Financial Perspective. The financial perspective focused on the overall financial value and health (Kaplan & Norton, 1993; Kaplan, 2010). The financial perspective recognized that making and managing the money necessary to keep a housing department in business (McCuskey, 2013). While not as prominent as the customer perspective, the financial perspective can be found in different models.

At the institutional level, Cameron (1978) did not include a financial domain. Cameron (1978, 1981) used financial measures inside the domain of organizational health. Examples of financial measures were the ability to acquire resources, including financial resources (Cameron, 1978). On the other hand, Miller (2007) used financial durability as a domain on institutional performance. Financial durability was another name for financial stability (Miller, 2007). Miller gave the examples of adequate funding as an indicator of financial durability (Miller, 2007).

Like Cameron, student affairs frameworks have contained financial measures, but not a financial domain. Upcraft and Schuh (2001) looked at cost effectiveness. Cost effectiveness is defined as the cost per student in a program or service (Schuh & Upcraft, 2001). Schuh and Upcraft (2001) recognized the inadequacy of this measure, but still considered the financial perspective important. Blimling (2001) put financial performance within a larger administrative category. The CAS standards (2015) also incorporated a domain of financial resources. ACUHO-I financial standards are found within the larger domain of business and management. Both sets of standards have focused on having adequate funding and dedicating funding to facilities maintenance (ACUHO-I, 2017; CAS, 2015). Financial standards are about ensuring a baseline not measuring the improvement or growth of financial well-being of department.

Financial performance needs to measure the health and growth of financial resources for the future. Financial performance may be represented by revenue generated, occupancy rates, contributions to reserves, or other financial measures. Specific institutional contexts and policies may influence how financial health is measured. As demands for financial and resources increase, demonstrating financial health becomes as important as student learning. Departments should explore how financial performance could be measured.

The Internal Process Perspective. The internal process perspective concentrated on the organization's internal activities and environment (Kaplan & Norton, 1993). This perspective focused on processes that affect how well an organization delivers programs and services (Kaplan, 2010). This domain may be considered the most comprehensive, but also the most ambiguous in the BSC. Internal processes can cover most of organizational activities across a large variety of areas. The internal process perspective is present in many higher education frameworks.

Cameron's (1978, 1981) domains of organizational health and faculty quality covered two different examples of the internal processes perspective. Each domain concentrated on the results of internal processes (Cameron, 1978). Communication frequency and level of trust were examples of organizational health measures. Faculty quality included number of publications and number of new courses. For Blimling (2001), the internal perspective covered administration and student service. Measures of effectiveness and efficiency of administrative processes and leadership are encompassed in this perspective (Blimling, 2001). Miller (2007) mirrored Blimling through assessing quality and efficiency of internal systems, work life, and leadership. Efficiency meant how well an organization uses its resources (Miller, 2007). For Upcraft and Schuh (2001), the internal process perspective is defined by how well an organization meets its goals related to internal systems and processes. Internal process may have considered the services rendered in an organization. Barham and Scott (2006) called this the student services perspective in student affairs organizations. One way to evaluate those services may be usage of services, programs, and facilities (ACE, 1949; Schuh & Upcraft, 2001). Professional standards heavily stressed internal processes. They set out guidelines for how departments should do their work. However, they set the minimums, not optimal organizational results. The internal process perspective can cover almost any area within an organization making it less discriminant than other perspectives. It remains important because even small internal process can have a large organizational impact.

The Learning and Growth Perspective. The learning and growth perspective measured how well an organization can change and develop (Kaplan & Norton, 1993, 1996). This area focused on an organization's success in creating and using knowledge, aligning systems, and continuously improving (Kaplan, 2010). The learning and growth perspective can be found

when looking at faculty and student performance, but if often missing when looking at staff performance.

Cameron's (1981) domains of faculty professional development and system openness can be seen in this perspective. Miller (2007) measured learning and growth through effective changes and the organization's learning culture. Upcraft and Schuh (2001) used benchmarking and professional standards as ways of marking learning in student affairs. These practices are not outcome oriented. Cameron (1978) only included faculty development, but the SPPV included staff development. Blimling (2001), Schuh and Upcraft (2001), and Barham and Scott (2006) only recognized student learning and development. They miss professional development all together. Modern student affairs assessment and standards models have not seen professional development a relevant outcome for organizations. Learning and growth is only seen from the customer perspective. Professional standards are not any different. Both ACUHO-I (2017) and CAS (2015) standards include the presence of training and development and initiatives within larger domains. Training and development are organizational inputs, where learning and growth are outputs positively affecting the organization. As a part of organizational performance, learning and growth measures how well people use knowledge, skill, and experience to improve their work (Kaplan & Norton, 1996).

Learning and growth is more than the input of new knowledge. It is the output based on the acquisition and use of knowledge. Campus housing needs to move learning and growth beyond participations to demonstrate how learning improves their departments. For housing, this may include the number of changes implemented, improvements in meeting student needs, or better utilization of theory and research. In a knowledge-based profession, learning and growth is an essential aspect of organizational performance.

First, it offers four perspectives that help frame how departments may define performance in a holistic and integrative way. Next, it illuminates where frameworks hit and miss the mark on different areas and measures. The BSC reveals that higher education focuses on customers and internal processes. Even within those perspectives, certain areas may be overlooked. Cameron and Miller are comprehensive but miss some meaningful measures for campus housing. For example, Cameron (1981) included a non-academic growth dimension. Non-academic growth is ambiguous and open to significant interpretation. For student affairs and administrative units, non-academic items and extracurricular dimensions are core to these organizations. Customer indicators focus on students when stakeholder needs to be included. In addition, the BSC shows the financial as well as the learning and growth perspectives need more significant consideration. Financial standards exist, but they focus on inputs not financial growth or results. Finally, the learning and growth perspective is weak in student affairs and housing models. Learning and growth performance can highlight not only the presence of specialized

Table 8
Mapping Dimensions Across BSC Perspectives

Author	Financial	Customer	Internal Process	Learning & Growth
Cameron (1978, 1981)	• Financial Resource Acquisition	• Student Personal Development • Student Satisfaction • Student Academic & Career Development • Interactions with the Community	• Non-Financial Resource Acquisition • Organizational Health • Employee Satisfaction	• Professional Development • Faculty Quality
Miller (2007)	• Financial Durability	• Customer/ Stakeholder Satisfaction	• Quality of Processes • Leadership • Work life • Efficiency	• Innovation
SSPV (1949)		• Student Satisfaction • Faculty Satisfaction	• Usage of Programs and Services • Quality of Relationships and Cooperation	• Professional Staff Training
Blimling (2001)		• Student Learning & Development	• Administration • Student Services	
Schuh & Upcraft (2001)	• Cost Effectiveness	• Student & Other Clientele Satisfaction	• Outcomes • Climate • Tracking	• Benchmarking • Professional Standards
Barham & Scott (2006)		• Student Learning • Student Development	• Student Services	
CAS (2015)	• Financial Resources	• Program • Diversity, Equity, Access • Internal & External Relations	• Assessment • Mission • Organization & Leadership • Human Resources • Law, Policy, & Governance • Facilities • Technology	
ACUHO-I (2017)	• Public Private Partnerships	• Student Learning & Development	• Business/Management • Residential Facilities • Dining Services • Crisis Management	

knowledge and skills, but also its utilization. Just as with students, this will show the return on invest in learning opportunities. It may also demonstrate how and where departments should continue to invest in their staff. Learning and growth is an essential perspective of organizational performance. The BSC is an important framework and tool when defining performance, but it is not the final answer.

DLOQ Organizational Performance

Drawing from Kaplan and Norton, Watkins and Marsick (1997) offered two performance dimensions—knowledge and financial performance. Knowledge and financial performance collapsed the four BSC perspectives into two. Knowledge performance covers the customer, internal process, and learning and growth perspectives. Knowledge performance assessed how well an organization uses knowledge to improve. Financial performance connected to the BSC financial perspective. It measured an organization's financial health. Another prominent DLOQ factor has been mission performance (McHargue, 1999, 2003). Mission performance centered on the non-profit context. McHargue's addition illustrated how performance can be adapted based on context. Watkins and Marsick's (1993, 1996, and 2003) original performance dimensions drew out important business perspectives, but they do not cover all organizational contexts. A closer look at these dimensions reveals how they contribute to understanding higher education and campus housing performance.

Knowledge performance arose from the knowledge capital literature (Marsick & Watkins, 2003). Marsick and Watkins (2003) saw knowledge as an organizational asset beyond financial measurement. Knowledge performance measured how well the organization increased its value and growth by using knowledge (Marsick & Watkins, 1997). It related back to the BSC's non-financial perspectives. Knowledge performance emphasized creating value in the

present and future (Marsick & Watkins, 2003). Knowledge performance indicators included customer satisfaction, number of suggestions implemented, and number of new products. With the growth of the knowledge economy and workers, this dimension remains useful across contexts including higher education. Knowledge performance is also relevant in student affairs and campus housing. As higher education professionals, housing staff must acquire and use knowledge from history, experience, and theories to improve practice (Blimling, 2001). Knowledge performance has been used in multiple higher education DLOQ studies (Akhtar et al., 2011; Kumar & Idris, 2006; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015).

Financial performance measured an organization's financial growth and health (Marsick & Watkins, 2003). Financial performance directly relates to the BSC financial perspective. Watkins and Marsick (1993, 1996) use perceptual financial performance measures. These measures have respondents compare from one year to another. Measures included return on investment, employee productivity, and market share (Watkins & Marsick, 1997). Ellinger, Ellinger, Yang, and Howton (2003) moved toward objective financial indicators. They examined accounting based measures including return on equity, return on assets, and management's value above the organization's assets, and market value added (Ellinger, Yang, Ellinger, 2000; Ellinger, Ellinger, Yang, & Howton, 2003). McHargue (1999, 2003) adapted financial performance to the non-profit context. Non-profit financial performance involved financial resource usage, employee productivity, volunteer involvement, contribution, cost per client, and board support (McHargue, 1999). McHargue's adjustment demonstrates that measures may be adjusted based on context without changing the overall dimension. Only one DLOQ study, Kumar (2005), used financial performance in a higher education setting. Based on the dimensions and indicators above, financial performance is relevant in campus housing.

However, for-profit measures and McHargue's non-profit measures do not align well with the campus housing context. Other measures need to be identified.

Mission performance examines how well the organization has met its mission (McHargue, 1999). Mission performance was developed to recognize the unique context and expectations of non-profit organizations (McHargue, 1999, 2003; Wetherington & Daniels, 2013). Mission performance indicators included program success rate, number of clients served, completion rates of programs, and hours spent in programs (McHargue, 1999). Mission performance created context specific measures of performance. While the idea of mission performance can be translated to campus housing, McHargue's indicators do not. Only one DLOQ higher education study used mission performance (Perfetti, 2015). However, the items did not follow McHargue and were not shown to be based in any literature. Campus housing's complex structure and roles may overlap mission performance with other dimensions such as knowledge performance.

Beyond the traditional DLOQ performance factors, Table 9 shows the different performance variables used in higher education studies. Teaching performance, research performance, innovation, effectiveness, and employee satisfaction are all found in DLOQ higher education studies (Akhtar et al., 2011; Kumar & Idris, 2006; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015). Teaching and research performance used satisfaction with number of published articles, degree of teamwork in research, student evaluations of teaching, and teamwork in teaching (Ali, 2012). These measures do not move performance beyond satisfaction with different areas. While Ali (2012) brought in higher education specific measures, the measures are not clearly linked to literature or larger constructs. Ponnuswamy & Manohar (2014) also used research performance, but do not define the items clearly. Most measures used in these

higher education studies are academically focused. They are not fully relevant outside of the academic area. Additionally, the variety of indicators makes it difficult to compare performance across studies.

Table 9
Performance Variables in Higher Education Studies

Authors	Year	Performance Variables
Kumar	2005	Financial and knowledge performance
Kumar & Idris	2006	Knowledge performance
Akhtar et al.	2011	Organizational Performance (Effectiveness, Employee Satisfaction, Innovation)
Ali	2012	Teaching and Research Performance Satisfaction
Ponnuswamy & Manohar	2014	Knowledge and Research Performance
Perfetti	2015	Financial, Knowledge, Mission Performance
Yu & Chen	2015	Knowledge Performance

Relevant, reliable, and valid performance measures are needed in campus housing and DLOQ research. Knowledge performance has been shown to be relevant in higher education (Kumar, 2005; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015). Other performance measures lack clarity, relevance, or foundation in literature making them difficult to utilize. For example, McHargue's (1999, 2003) mission performance is relevant, but its measures are not applicable in campus housing. Student affairs assessment models provide a guide for what dimensions may be most relevant and impactful, but do not offer a fully integrative framework. DLOQ studies in higher education have utilized knowledge, financial, and mission performance (Kumar 2005; Kumar & Idris, 2006; Perfetti, 2015; Yu & Chen, 2015). However, these factors do not fully encompass performance for campus housing. A combination of current DLOQ performance dimensions and adapted dimensions from higher education frameworks may move the definition of performance forward for campus housing.

Linking Learning and Performance

Organizations must know which practices influence performance. Establishing empirical connections between learning and organizational performance strengthens validity and creates a business case for becoming a learning organization (Ellinger, Ellinger, Yang, & Howton, 2003; Yang, Watkins, & Marsick, 2004). The DLOQ included organizational performance to support that connection (Yang, Watkins, & Marsick, 2004). DLOQ studies across contexts, including higher education, have consistently shown a positive correlation between learning and performance (Ellinger, Ellinger, Yang, & Howton, 2003; Kumar, 2005; McHargue, 1999, 2003; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015). A look at higher education DLOQ findings reveal how learning most impacts performance.

Findings showed learning significantly impacts knowledge performance both within and outside of higher education. Organization level dimensions best correlated and predicted knowledge performance (Akhtar et al., 2011; Kumar, 2005; Kumar & Idris, 2006; Watkins & Dirani, 2013; Yu & Chen, 2015). This finding was consistent across business, non-profit, and higher education (McHargue, 2003; Yu & Chen, 2015). In higher education, the dimensions *embedded systems* and *strategic leadership* best predicted knowledge performance (Kumar & Idris, 2006; Yu & Chen, 2015). McHargue (2003) also found *embedded systems* had a significant relationship with knowledge performance in the non-profit sector ($p<.001$). McHargue (2003) suggested having straightforward ways to capture and access knowledge helps people adapt to the needs of whom they serve. In higher education, this remains true, as organizations must meet the needs of students and stakeholders. Kumar and Idris (2006) found *strategic leadership* and *team learning* had as much impact on knowledge performance as *embedded systems* ($p=.0001$). People need to learn from one another and feel supported by leadership. Yu and Chen (2015) also found a significant relationship between *team learning* and

knowledge performance ($p<.01$). With the small data sets and different findings, more studies are needed in higher education to determine the predictors for knowledge performance.

DLOQ studies in business, public health, and non-profit also demonstrated the relationship between learning and financial performance (Davis & Daley, 2008; McHargue, 2003; Watkins, Milton, & Kurz, 2009). Financial performance's absence in higher education DLOQ studies was consistent with the lack of financial dimensions in performance frameworks. Only Kumar (2005) showed positive effect of learning on financial performance ($p<.0001$). In addition, Kumar (2005) concluded that organization level learning explained almost half of the variance in financial performance. The organization level of learning arose as a strong financial performance predictor (Watkins, Milton, & Kurz, 2009). Individual level learning followed as the second-best predictor of financial performance (Kumar, 2005). However, Kumar (2005) did not identify specific dimensions. Determining which dimensions within this level had the most impact on performance has been challenging. This leaves a gap in knowing what practices impacted performances. Since financial performance is missing from other higher education DLOQ studies, applying the connection to other college and university settings is difficult. More data is needed to see how these findings compare across other higher education areas.

Outside of the traditional knowledge and financial performance, teaching and research performance have been positively linked to learning (Akhtar et al., 2011; Ali, 2012). Ali (2012) also found organization level learning had the strongest correlation with research performance. *Connection to the environment*, *embedded systems*, and *team learning* showed the strongest relationship to research performance ($p <.001$). Ponnuswamy and Manohar (2014) found organization level learning significantly correlated with both knowledge and research performance ($p<.001$). For teaching performance, *embedded systems* and *strategic leadership*

were the strongest correlations ($p<.001$). *Strategic leadership* correlated strongest with teaching performance ($p<.001$). Akhtar et al. (2011) found connection to the environment and empowerment toward a *shared vision* as the strongest correlations with overall organizational performance. Once again, organizational level learning emerges as having a significant positive relationship with performance outcomes.

Beyond correlations, studies also identified performance dimensions that best predict performance outside the traditional DLOQ measures. Akhtar et al. (2012) found *dialogue and inquiry* and *connections to the environment* as the only significant performance predictors ($p<.01$). These are individual level and organizational level dimensions. Ali (2012) found *continuous learning* contributed the most to variance in teaching performance and research performance ($p<.05$). While individual level dimensions may best predict performance variance, organization level dimensions have the highest correlations with performance.

Connecting learning and performance remains important for organizations. Akhtar, et al. (2011) argued institutions should be able to provide evidence when seeking additional funding by linking learning and performance. DLOQ higher education studies have established a positive and significant relationship between learning and performance. Knowledge performance continues to be a consistent performance factor across contexts. Organization level dimensions appeared as a common corollary and predictor of knowledge performance. However, other performance data becomes less consistent because performance factors differ across studies. Additional studies will continue to confirm or challenge the relationship organizational level learning to knowledge performance. The impact of the higher education context is not fully known with varying organization types and locations. Table 10 shows DLOQ studies' performance factors and their strongest learning organization relationships.

Table 10
Performance Factors and Learning Dimensions

Performance Factors	DLOQ Study	Strongest Predictors/Corollaries
Knowledge Performance	Akhtar et al. (2011)	Dialogue and Inquiry, Embedded Systems
Knowledge Performance	Kumar & Idris (2006)	Strategic Leadership, Team Learning, and Embedded Systems
Knowledge Performance	Yu & Chen (2013)	Team Learning
Teaching Performance	Ali (2012)	Strategic Leadership
Research Performance	Ali (2012	Embedded Systems
Knowledge Performance	Ponnuswamy & Manohar (2014)	Organization Level Dimension *
Research Performance	Ponnuswamy & Manohar (2014)	Organization Level*

Note. *= Specific dimensions not reported

Organizational performance is a complex construct. Even in higher education, performance is not easily defined or measured. Across higher education, different priorities emerge when assessing organizations. The BSC is a way to examine different frameworks to find a holistic performance perspective for campus housing. The DLOQ provides performance measures through knowledge and financial performance. Knowledge performance has been shown to translate well into campus housing. Financial performance provides important pieces of performance but needs to be adapted for campus housing. No matter which measures are used, learning has been consistently shown to correlate positively with performance. This underscores the importance of not only demonstrating performance, but also finding ways to positively impact performance.

Summary

This chapter explored literature related campus housing administration, the learning organization, and organizational performance. First the organization structures and set-up of housing departments revealed a complex landscape across institutions. Next, using Crossan, Lane, and White's (1999) "4I"s, learning organization models were analyzed to find one that is

holistic and practical. This analysis showed Watkins and Marsick's (1993, 1996) model as practical and validated model, making it the theoretical frame of this study. An investigation of DLOQ empirical literature revealed extensive use across contexts, but no use in a campus housing context. The DLOQ literature also showed that learning and performance are positively related across business, non-profit, and educational contexts. Finally, using the BSC, different performance and assessment models showed both commonalities and gaps in how performance is defined for campus housing. The DLOQ literature revealed higher education studies have used the DLOQ performance factors. However, numerous other performance variables make it difficult to compare across the landscape.

Using the literature as a guide, this study examined the learning culture of campus housing departments and it relationship to organizational performance. The study used current DLOQ performance factors and developed a new scale to address the gap in the literature for campus housing performance.

CHAPTER 3

METHODOLOGY

This chapter describes the methodology and design of this study. This chapter also presents the research questions and framework, defines the variables, explains the DLOQ instrument, introduces the study participants, and finally describes the data collection plan and analysis techniques. This chapter includes the measurement framework, study design, instrumentation, pilot test, study sample, data collection, data preparation, data analysis, and limitations of the study.

The Measurement Framework

The purpose of this study was to examine the learning culture and its relationship to organizational performance in campus housing departments. Using Watkins and Marsick's (1993, 1999, 2006) model of learning organizations as the foundation, this study looked at the effect of the learning organization on organizational performance as perceived by departmental leaders. The independent variable in this study is the learning organization. The dependent variable is organizational performance defined through financial, knowledge, and educational performance dimensions. Demographic variables of institutional characteristics were also collected. Figure 4 depicts the final measurement model of this study.

The research questions guiding this study are:

1. To what extent do campus housing departments exhibit the characteristics of a learning organization?

2. To what extent do perceptions of learning organization characteristics differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
3. To what extent do perceptions of organizational performance differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
4. To what extent do dimensions of a learning organization explain observed variance in organizational performance?
5. Which dimensions of a learning organization best explain observed variance in organizational performance?

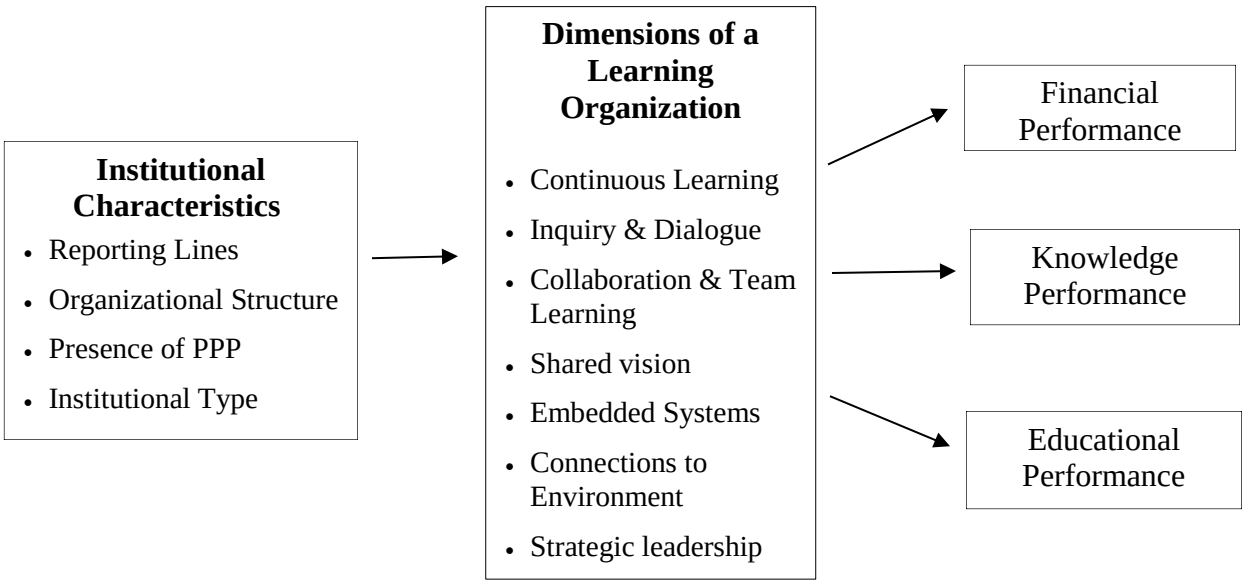


Figure 4. Final Measurement Framework

Study Design

This is a quantitative study using cross-sectional survey research. Quantitative research investigates phenomena through collection and analyses of numerical data (Houser, 2009; Muijs,

2004). Quantitative research also examines relationships between variables (Houser, 2009; Merriam & Cranton, 2015). Survey research collects data from individuals about opinions, phenomena, or behavior (Bartlett, 2005; Creswell, 2014; Houser, 2009). Surveys also allow perceptions, attitudes, or opinions to be translated into numbers for analysis (Creswell, 2014). Cross-sectional studies capture data once (Bartlett, 2005; Cranton & Merriam, 2015). This study collected one-time perceptions from a sample of campus housing professionals to examine the relationships between multiple variables, making this method appropriate.

Instrumentation

The instrument in this study used an existing survey as well as newly developed and adapted items. The survey had a total of 47 items. The items were divided into three sections. First, items were used from the DLOQ to assess learning culture (Watkins & Marsick, 1997). Next, respondents were asked about perceptions of organizational performance. Performance included DLOQ knowledge performance with newly adapted and developed financial and educational performance items. The learning organization section used a 6-point Likert scale (1=Almost Never to 6= Almost Always). Organizational performance items used a 6-point Likert scale (1=Not at all to 6=To a great extent). DLOQ items were used with permission. Institutional characteristics made up the last section of the instrument. Some institutional characteristic items were used with permission from the ACUHO-I Operations Survey (2015). Table 11 shows item examples for learning organization and knowledge performance.

DLOQ

This instrument included DLOQ learning organization and knowledge performance and adapted financial performance items (Marsick & Watkins, 2003; Watkins & Marsick, 1997). Learning culture included seven dimensions of learning organization -- *continuous learning*

opportunities, promotion of dialogue and inquiry, collaboration and team learning, empowerment towards a shared vision, embedded learning systems, system connections to the environment, and strategic leadership for learning (Marsick & Watkins, 2003). The seven dimensions measured learning culture from the individual, group, and organizational levels. This study used the 21-items version of the learning organization items (Yang, 2003). Each learning organization dimension contained three items. Table 11 provides the definition of each dimension.

Knowledge performance examined how well an organization uses its knowledge to improve programs and services (Marsick & Watkins, 2003; Watkins & Marsick, 1997). Campus housing professionals need to acquire, access, and use knowledge in professional practice (Goldman, 2013). Knowledge performance evaluated how well people use knowledge and skill, and this applies well to the campus housing context. Knowledge performance items included use of resident satisfaction, number of new programs and services, and implementing suggestions (Watkins & Marsick, 1997). Some words were changed to reflect the campus housing context (e.g. customer to resident). Table 11 shows an example of a knowledge performance item.

Table 11

DLOQ Dimension Descriptions & Item Examples

Dimension	Description	Item Example
Continuous Learning	Continuous learning opportunities are offered formally and informally so that people can learn on the job.	In my department, people identify skills they need for future work tasks.
Promote Inquiry & Dialogue	People are encouraged to express their views and engage in inquiry and conversation; the culture supports feedback, questions, and risk taking.	In my department, people give open and honest feedback to each other.
Team Learning & Collaboration	Opportunities to work in groups are provided and collaboration is encouraged and expected.	In my department, groups have the freedom to adapt their goals as needed.

Empowerment toward a shared vision	Members are involved in creating and setting a common vision and goals.	In my department, groups are rewarded for their achievements.
Embedded systems to capture learning	Resources and systems are in place to support and capture learning.	My department enables people to get information at any time quickly and easily.
Connections to the environment	Members recognize how their work and the environment are connected and influenced by each other.	My department encourages people to think from a global perspective.
Strategic Leadership	Leadership that models, advocates, and champions learning.	In my department, leaders empower others to help carry the organization's vision.
Knowledge Performance	Improvement of programs and service by using knowledge	In my department, resident satisfaction is greater this year than last.

DLOQ Validity and Reliability. The DLOQ's strength is its consistent validity and reliability across different contexts (McHargue, 2003; Song, Joo, & Chermack, 2009; Watkins & Dirani, 2013; Yang, Watkins, & Marsick, 2004). Validity is the degree to which the instrument measures what it says it will measure (Houser, 2009; Spector, 1992). In its original development, the DLOQ was submitted through validation processes and multiple critiques (Marsick & Watkins, 2003; Yang, 2003; Yang, Watkins, & Marsick, 2004). Ellinger, Ellinger, Yang, and Howton (2002) examined the validity of both the 43-item version and 21-items version of the DLOQ. Ellinger, et al. found stronger model fit and validity in the 21 -item version. Yang (2003) also used Exploratory Factor Analysis (EFA) to find a smaller set of items while preserving integrity of the theory and the instrument. This process resulted in the 21-item version. Yang (2003) found the 21-item instrument to have better psychometric properties and recommended its use when studying multiple variables. Yang (2003) also used nomological network validity to test the learning organization in relation to organizational performance. Yang (2003) found the learning organization had significant effects on organizational performance. This supported validity of the model. Song, Joo, and Chermack (2009) expanded

the validity of the 21-item DLOQ into the Korean context. Using Confirmatory Factor Analysis (CFA), Song et al. found the DLOQ to be valid and reliable across different contexts. Like Song et al., Watkins and Dirani (2013) used CFA in their meta-analysis to confirm construct validity. CFA tests data to see if it fits in a hypothesized structure of factors and items (Spector, 1992). CFA also supported the learning organization and performance model (Ellinger, Ellinger, Yang, & Howton, 2002; Song, Joo, & Chermack, 2009; Yang, 2003; Yang, Watkins, & Marsick, 2004). The DLOQ dimensions consistently show validity, making it a strong instrument to utilize in a new context.

The DLOQ has also shown strong reliability. The reliability of an instrument is defined by consistency of responses across measures (Creswell, 2014). Cronbach's alpha is a common measure of reliability (Lance et al., 2006; Nunnally, 1978; Spector, 1992). Acceptable reliability estimates are commonly .70 or above for Cronbach's alpha (Lance et al., 2006; Nunnally, 1978; Spector, 1992). Table 12 shows studies have consistently shown alphas of above .70 for learning organization dimensions. The 21-item version of the DLOQ has also shown acceptable reliability across all seven dimensions (Rus, Chirica, Ratiu, & Baban, 2014; Yang, 2003). Both the 43-item and 21-item DLOQ have also been shown to be reliable in higher education (Akhtar et al., 2011; Rus et al., 2014).

Table 12

Reported Reliability Estimates of all Seven Learning Organization Dimensions

Study	Context	Cronbach's Alpha
Akhtar et al. (2011)	Higher Education	.65 -.95
Akram, Watkins, and Sajid (2013)	High School	.84-.94
Ali (2012)	Higher Education	.89-.94
Rus et al. (2014)	Higher Education	.71-.90*
Song, Joo, and Chermack (2009)	Korean Business	.74-.84
Watkins, Milton, Kurz (2009)	Public Health	.83-.94
Watkins & Dirani (2013)	For-Profit	.97*

Yu & Chen (2015)	Higher Education	.98*

Note: *=Overall reliability of all seven dimensions; **= 21-item scale

Knowledge performance items show reliability inside and outside of higher education (Kim, Watkins, & Lu, 2017; Kumar, 2005; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015). Multiple DLOQ higher education studies included knowledge performance (Kumar, 2005; Perfetti, 2015; Ponnuswamy & Manohar, 2014; Yu & Chen, 2015). However, the studies did not widely report knowledge performance reliability estimates. Table 13 shows reported reliability estimates.

Table 13
Reported Reliability Estimates for Knowledge Performance Dimensions

Study	Context	Cronbach's Alpha
Kumar (2005)	Higher Education	.81
McHargue (1999)	Non-Profit	.82
Watkins, Milton, Kurz (2009)	Public Health	.88
Weldy & Gillis (2010)	For-Profit	.90
Yu & Chen (2015)	Higher Education	.92

Development and of New Performance Factors

Because performance is not one dimensional, knowledge performance cannot fully capture organizational performance. Additional performance dimensions and items were created through a scale development process. Scale development consists of defining the construct, designing the scale, pilot testing, administration, and item analysis (Spector, 1992).

As Spector suggests (1992), the scale development process began with defining performance through a literature review. Higher education, student affairs, and campus housing literature were investigated. In addition to knowledge performance, two dimensions were initially proposed through an inductive process by the researcher. Administrative performance

measured performance the overall services and operations of a housing department. Educational performance measures efforts related to student learning and development.

Administrative Performance. Administrative performance measures the department's business operations and administrative services. Business administration and student services are core functions of campus housing (ACUHO-I, 2017; Barham & Scott, 2006; Blimling, 2001). This dimension ties back to Kaplan and Norton's (1993) internal process perspectives and financial perspectives. Administrative performance items cover finances, facilities, crisis response, and revenue. Strong administrative performance demonstrates an ability to keep up with growing business demands.

Administrative performance was an over-arching construct that included financial health. During the confirmatory factor analysis portion of this study, administrative performance was re-named to financial performance. The name change better reflected the final indicators of this construct within the measurement model. The factor was re-named to financial performance. The results of the CFA are discussed in Chapter 4 of this study.

Financial Performance. Financial performance measures the "financial health and resources available for growth" (Watkins & Marsick, 2003, p. 139). Campus housing departments need to have financial resources available to maintain and grow operations (ACUHO-I, 2017; CAS, 2016). This factor ties back to Kaplan and Norton's (1993) financial perspective of the BSC. Items in financial performance covered use financial resources, occupancy rates, and revenue generated.

Educational Performance. Educational performance evaluates organizational contributions to student learning and development. Educational performance traces back to campus housing's role in student development and learning outside the classroom (ACUHO-I,

2016; Barham & Scott, 2006; CAS, 2015; Hamrick & Klein, 2015). Measures of educational performance included items such as faculty interaction in the classroom, program participation rates, and program effectiveness. With high educational performance, departments show contributions to student success through residential programs (Braxton, 2003).

An initial list of items was developed for administrative, knowledge, and educational performance. Several reviews from faculty advisors ensured the items were relevant across institutions and results oriented. Both administrative and knowledge performance had five items, and educational performance contained 4 items. Tables 14 shows all performance items and their literature sources.

Table 14

Original Proposed Organizational Performance Items & Literature Sources

Dimension	Item	Literature Source
Administrative (Changed to Financial)	In my department, the amount of revenue generated is greater this year than last.	Bradley (2013); Cameron (1981)
	In my department, financial resources were used more effectively this year than last year.	Watkins & Marsick (1997)
	In my department, the occupancy rate is greater this year than last.	ACUHO-I (2017); CAS (2015)
	In my department, the number of preventative improvements to facilities is greater this year than last.	ACUHO-I (2015) Operational Survey; CAS (2015)
	In my department, staff responded to crises more effectively this year than last.	ACUHO-I (2017) Professional Standards
Knowledge	In my department, resident satisfaction is greater this year than last.	ACUHO-I (2017); Miller (2007); Schuh & Upcraft (2001); Watkins & Marsick (1997)
	In my department, the number of suggestions implemented is greater this year than last.	Watkins & Marsick (1997)
	In my department, the number of new programs and services is greater this year than last.	Watkins & Marsick (1997)
	In my department, the number of complaints is less this year than last.	Watkins & Marsick (1997))

	In my department, the use of new technology (hardware and software) is greater this year than last.	Watkins & Marsick (1997)
Educational	In my department, the number of academic initiatives is greater this year than last (LLCs, faculty programs, advising, tutoring, etc.).	ACUHO-I (2017); Kuk, Banning, & Amey (2010)
	In my department, student learning and development theory was better utilized this year than last.	ACUHO-I (2017); CAS (2015)
	In my department, the percentage of residents participating in residence hall programming is greater than last.	ACUHO-I (2016); Schuh & Upcraft (2001); Kuh (2006)
	In my department, programs respond to student needs better this year than last.	ACUHO-I (2017); CAS (2015)

Educational Performance. Educational performance evaluates organizational contributions to student learning and development. Educational performance traces back to campus housing's role in student development and learning outside the classroom (ACUHO-I, 2016; Barham & Scott, 2006; CAS, 2015; Hamrick & Klein, 2015). Indicators within educational performance included items such as faculty interaction in the classroom, program participation rates, and program effectiveness. With high educational performance, departments show contributions to student success through residential programs (Braxton, 2003).

During the confirmatory factor analysis, initial items were dropped to enhance the fit of the model. Because the remaining items focused on financial health, the factor was re-named to financial performance. Financial performance measures the department's overall financial health through business operations and administrative services. Business administration and services are core functions of campus housing (ACUHO-I, 2017; Barham & Scott, 2006; Blimling, 2001). Strong performances in these functions help contribute to overall financial health and well-being of a housing department. Financial performance ties back to Kaplan and Norton's (1993)

internal process and financial perspective. This dimension covers use of financial resources, occupancy, and revenue.

Institutional Characteristics

Respondents were asked about characteristics that describe their institution. These characteristics help sharpen the contextual picture for these departments. Organizational demographics can offer a better understanding of both the learning organization and performance landscape. This study included items asking institutional size, departmental structures and reporting lines, and involvement in public-private partnerships. The individual items and variable definitions are used with permission from the 2015 Association of Colleges and Universities Housing Officers International (ACUHO-I) Operational Survey.

Pilot Test

As a final step, a pilot test was conducted to validate the DLOQ and gain feedback on newly developed items. Non-random, convenience sampling was used for the pilot (Cranton & Merriam, 2015). Senior Housing Officers (SHO) from the researcher's professional network were invited take the survey and offer feedback on the organizational performance items. These respondents were chosen because they are considered experts in campus housing. The pilot test had a total of 16 respondents with complete cases. The respondents were asked to take the full survey and give feedback on the organizational performance items. The wording of one performance item was refined based on feedback given in the pilot study. The item "student learning and development were better integrated into program planning…" was changed to "student learning and development theory were better utilized in residence hall program planning…". After this wording update, the instrument was moved forward for the full study.

The pilot study found the survey showed adequate reliability for both the learning organization and performance scales. The learning organization scale showed an overall reliability of .81, and the performance scale showed an overall reliability of .84.

Study Sample

This study used criterion based purposive sampling and convenience sampling. Criterion based purposive sampling chooses a population which meets a certain set of criteria (Cranton & Merriam, 2015; Swanson & Holton, 2005). This sampling strategy was utilized because respondents needed to be positioned high enough in the organization to answer all parts of the instrument. Organizational leaders have the view of the whole organization while also understanding how the organization has performed in the last year (Watkins & O'Neil, 2013). This study was looking for leaders of campus housing departments who were able to assess both culture and performance. Convenience sampling was also used to increase the number of responses in the study. The sample for this study was Senior Housing Officers (SHO) of campus housing departments in the United States. SHOs are top departmental leaders who should be able to gauge learning and performance.

Potential respondents were identified through two different ways. First, the researcher applied for Endorsed Research status through ACUHO-I. This process gave access to SHOs through ACUHO-I membership lists. ACUHO-I granted endorsed research status in June 2017. ACUHO-I sent out an anonymous survey link to their SHO membership list. ACUHO-I sent one reminder. The limitation of the ACUHO-I partnership was access to SHOs was given only through ACUHO-I. The researcher was not able to have direct contact or be given names of who was contacted.

During a second round of data collection, convenience sampling was employed. Convenience sampling is a sample based on access to a respondent (Houser, 2009). Potential respondents were located through directories of colleges and universities in the United States available from different higher education organizations and associations with housing departments. These directories included ACUHO-I and NCAA members lists. Internet searches using the keyword "Director of Housing" or "Director of Residence Life" were used to locate SHOs email addresses through staff or organizational directory at different institutions. SHOs whose emails were located easily on the internet were contacted in the second round of data collection.

Data Collection

Data collection began after approval from University of Georgia Institutional Review Board in May 2017. The IRB indicated this study is exempt. Data was collected during July 2017 and November 2017. The instrument was distributed electronically using *Qualtrics* software through the University of Georgia. Web based surveys allow data to be collected quickly and at a low cost (Dillman, Smyth, & Christian, 2014). For the first round of data collection, the incentive of an executive summary was offered to respondents. In July, ACUHO-I sent an email invitation on the researcher's behalf to ACUHO-I members self-identified as SHOs in the US. The invitation included an anonymous link to the survey. ACUHO-I also sent one reminder. However, multiple reminders are important for increasing response rates (Dillman, 2000). Only a single reminder may have impacted responses in the first round of data collection. The instrument was open from June 23rd to July 17th, 2017. This round collected N=99 complete cases.

A second round of data collection began in mid-November 2017. The researcher chose November because it allowed respondents enough time to assess current academic year performance in comparison to the previous year. The second round included direct e-mails to 233 potential respondents who were identified as SHOs on their campus. Direct e-mail invitations allowed for multiple reminders and response tracking. More personalized and repeated contact has shown to increase response rates of web-based surveys (Dillman, Smyth, & Christian, 2014). An additional incentive was added to encourage participation. Participants who completed the survey were entered into a random drawing for one of three Amazon gift cards worth $100 each. This round included an initial invitation and two reminders. The instrument was open from November 10th- December 12th, 2017. The final total responses from this collection period resulted in 116 responses resulting in 93 complete cases.

Table 15 shows the number of respondents and response rates from both data collection points. The total number of respondents is N=289; the total number of complete cases was N=212.

Table 15
Data Collection Response Rates

Collection Point	SHOs Contacted	# of Responses	Response Rate	Complete Cases	Collection Method
Pilot	43	16	32.7%	16	E-Mail with Anonymous Link
Summer 2017	1638	157	9.6%	99	Email from ACUHO-I with Anonymous Link; 1 reminder
Fall 2017	264	116	43.9%	97	Individual email invitation; 2 reminders
Total	1945	289	14.9%	212	

Data Preparation

Data preparation began with examining missing data, outliers, normality, and multicollinearity. First, the initial data was downloaded into SPSS 25. Next, data was analyzed

and transformed to correct any user entry error. Text entries were edited to create consistent entries across cases.

Thirty-five variables, excluding institutional characteristics, were examined for missing data. Missing data is data which was intended to be collected but is missing (Gall, Gall, & Borg, 2003). Missing data can decrease sample size and impact analysis (Hair et al., 2010). Missing data was examined using SPSS "Missing Values Analysis". A review of cases of with missing data found that most cases with missing data had over 40% items missing making them eligible for deletion (Hair, 2010). This resulted in an initial deletion of 64 out of 288 cases leaving 224 cases. Most of these cases were examined and seemed to be non-responses. Next, remaining cases were examined for missing values in organizational performance. Hair (2010) recommends that cases with items missing in the dependent variables be deleted. This resulted in the removal of 3 additional cases. The rest of the missing data was found to be missing completely at random (MCAR). The complete case imputation method was chosen because enough cases would remain to complete analysis. The casewise or complete case method deletes any cases with missing data (Hair et al., 2010). This is the most stringent, but simplest ways for deleting data. It is also preferable with regression analysis. After deleting missing data, a total of N=212 responses were left.

The data were then examined for outliers. Outliers are data points that diverge from the rest of the data (Cohen, et al., 2003; Pedhazur, 1997). Standardized scores were used to identify possible univariate outliers. A z-score of less than 3.3 is a common first step identifying outliers. Next, Mahalanobis D^2 was used to identify potential multivariate outliers. Cases with a Mahalanobis D^2 chi-square probability of less than .001 were examined (Stevens, 1984). For

factor analysis, outliers within the performance variables were excluded leaving N=209 cases for this analysis.

Multicollinearity was tested used Pearson correlation, Tolerance and Variance Inflation Factor (VIF). Multicollinearity occurs when independent variables are highly correlated with each other (Pedhazur, 1997). Multicollinearity can lead to errors in regression analysis (Cohen, Cohen, West, & Aiken, 2003). Hair (2010) identifies Pearson correlations above .90 for independent variables may show a problem of multicollinearity. Correlations between learning organization items range from .108-.664 which is acceptable. Variance Inflation Factor (VIF) and Tolerance are also measures used to detect multicollinearity. Common practice states that VIF over 10 indicates collinearity problem (Cohen et al., 2003). VIF for learning organization items ranged from 1.5-2.6, thus there was no collinearity problem.

The data was checked for bivariate and multivariate normality using the Shapiro-Wilks tests. The null hypothesis for the test was rejected indicating non-normality in the data. Finally, data was recoded into learning organization dimensions. The seven dimensions of a learning organization were created by combining three items per dimension.

Data Profile

This study consisted of N=212 complete cases. Over half of the respondents (59%, N=121) came from 4-year public institutions, while 38% (N=82) reported being from four-year private and only 1% (N=2) from two-year schools. The average number of beds across all institutions was 3695, with the largest bed capacity at 17,000 and the smallest at 120 beds. Over 90% (N=205) of the respondents reported their department is a unified system as opposed to a bifurcated system. Most departments report to student affairs (84%, N=180). Only eight respondents (3.8%) said they report up through business administration. Areas outside of student or business affairs included the Provost's Office, Academic Affairs, or having a dual report to

student and academic affairs. Over one quarter of respondents (N=55) are involved in a PPP. The PPP arrangements vary across institutions. There is not one dominant type of PPP.

Table 16
Demographic Characteristics

Variable		%	N
Institution Type	4-year Private	57%	121
	4-year Public	38%	82
	2-Year School	1%	2
Bed Capacity			
	Smallest Capacity		120 Beds
	Largest Capacity		17,000 Beds
	Average Capacity		3695 Beds
	Capacity Standard Deviation		3102 Beds
Reporting Lines			
	Student Affairs	87.4%	180
	Business Administration	3.8%	8
	Other	8.7%	18
Organizational Set Up			
	Unified	90%	205
	Bifurcated		
Public-Private Partnerships			
	Yes	27%	55
	No	73%	151

Data Analysis

Data was analyzed using SPSS 24 & 25, AMOS, and Microsoft Excel. Descriptive and inferential statistical analyses were performed to examine the data as shown in Table 17. Data analysis techniques included factors analysis, descriptive statistics, reliability and validity, hypothesis testing, multiple regression.

Different data analysis techniques were used to answer the research questions. SPSS 24 and Microsoft Excel were used to complete descriptive statistics, multivariate analysis of variance, and multiple regression analyses. SPSS and AMOS were used to complete confirmatory factor analysis for all variables. Descriptive statistics were utilized to answer the

first research question about the extent to which housing departments exhibit the characteristics of a learning organization. For research questions two and three series of multivariate analysis of variance (MANOVA) tests were run to identify difference in perceptions of both the learning organization and organizational performance based on institutional characteristics. MANOVA examines group differences with multiple dependent variables (Hair, 2010). Both the learning organization and organizational performance are multidimensional making MANOVA an appropriate test. Finally, regression analysis helped to understand the extent to which the organization explains the variance in organizational performance. Regression examines how one or more independent variables impacts the variance of a dependent variable (Swanson & Holton, 2005). This study used the standard and stepwise regression methods to answer the last two research questions. Standard regression enters all variable into the equation at once to see which have a significant impact on the variance of the dependent variable (Swanson & Holton, 2005). This method is used to understand whether all seven dimensions together significantly predict organizational performance. In addition, a stepwise method was used to determine which combination of dimensions most effect the variance of each organizational performance factor.

Table 17
Data Analysis Method by Research Question

	Research Question	Method
1.	To what extent do campus housing departments exhibit the characteristics of a learning organization?	Descriptive Statistics
2.	To what extent do perceptions of learning organization characteristics differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?	MANOVA
3.	To what extent do perceptions of organizational performance differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?	MANOVA

4.	To what extent do dimensions of a learning organization explain observed variance in organizational performance?	Standard Multiple Linear Regression
5.	Which dimensions of a learning organization best explain observed variance in organizational performance?	Stepwise Multiple Linear Regression

Limitations of the Study

This study has its limitations. As a cross-sectional study, this study does not examine changes in perceptions over time (Bartlett, 2005; Cranton & Merriam, 2015). This design only calls for one respondent per department. This limits the perceptions to a single viewpoint which may not be fully representative of the department which limits the ability to make conclusions or inferences about institutions individually. In addition, respondents were identified as departmental leaders. Social desirability may impact these leaders wanting their departments to look good (Spector, 1992). Another limitation of this study is that measures of learning organization characteristics and organizational performance are perceptual. While campus housing departments exist outside of the US, this study only looks at institutions in the United States. This limits the findings to validity in one country.

CHAPTER 4

RESULTS

The purpose of this study is to examine the learning culture of campus housing departments and its relationship to organizational performance. This chapter will present results of statistical analyses used to answer the research questions. The results presented here include factor analysis, reliability and validity, descriptive statistics, and multiple linear regression.

Factor Analysis

Confirmatory Factor Analysis

Data analysis began with Confirmatory Factor Analysis (CFA) of the proposed administrative performance, knowledge performance, and educational performance. CFA seeks to validate a proposed measurement theory (Hair, 2010). CFA evaluates model fit and validity of latent constructs and their indicators (Spector, 1992; Yang, 2004). Model fit is determined through estimation of fit indices which illustrate how well a model fits the data (Hair, 2010). Together these indices show overall goodness-of-fit (GOF). Validity represents how well the constructs measure what they say they measure (Spector, 1992). In CFA, validation includes showing convergent validity, discriminant validity, and composite reliability (Hair, 2010). Because this study began with a proposed measurement model of three organizational performance factors, CFA was an appropriate factor analysis method. CFA was conducted using IBM SPSS AMOS.

CFA began with looking at overall GOF for a model fit. This study used three different indices to evaluate model fit—chi-square to degrees of freedom ratio (χ^2), root mean square error

of approximation (RMSEA), and comparative fit index (CFI). The acceptable cut-offs for each fit index are shown in Table 18. For χ^2, the ratio should be less than 3, but a smaller ratio indicates a better fit. The RMSEA should be less than or equal .06, but no more than .08, as a number closer to zero means a better fit (Hu & Bentler, 1999; Schreiber, et al., 2006. A CFI closer to 1 shows a good fit. While .90 or above can show adequate fit, Hu and Bentler (1999) recommend a threshold of .95 or greater to show a strong fit.

Table 18

Cut-offs for Overall Goodness of Fit Indices

Fit Index	Cut-Off
χ^2	< 2 or 3
RMSEA	<.08
CFI	>.9

Note. Cutoffs as suggested by Hu & Bentler, 1999; Schreiber et al., 2006.

In addition to model fit, CFA is meant to validate the measurement model. For a model to be valid, it must display adequate convergent and discriminant validity. Convergent validity shows that indicators have a strong relationship with its associated factor (Hair, 2010; Spector, 1992). One measure of convergent validity is average variance extracted (AVE). AVE measures the amount of variance due to the construct as opposed due to error (Hair, 2010). An AVE greater than .5 is one indicator of convergent validity (Hair, 2010). Another indicator of convergent validity is composite reliability (CR). CR measures the overall reliability of the factor. A score of greater than .7 shows adequate reliability (Hair, 2010).

Discriminant validity shows that each factor is different from the other (Hair, 2010; Spector, 1992). Discriminant validity ensures that the factors and indicators are unique to each other and not a part of another factor. A lack of discriminant validity means that factors highly correlate (Hair, 2010). One measure of discriminant validity is that the AVE should be greater

than the inter-factor correlation squared (Hair, 2010). In addition, the maximum shared variance (MSV) should be less than the AVE. A strong model should show good model fit, convergent validity, and discriminant validity. Together, convergent and discriminant validity help identify a valid measurement model from to which to base additional analyses.

Proposed Measurement Model CFA

The CFA began with the initial proposed model using administrative, knowledge, and educational performance as described in Chapter 3. The initial results indicated an overall acceptable goodness of fit for the model (CFI =.902, RMSEA =.077, CMIN= 2.62). Table 19 shows the GOF results with associated cut-offs.

Table 19
Organization Performance Overall Goodness of Fit

Fit Index	Cut-off	Proposed Model
χ^2 to df	< 2 or 3	2.62
RMSEA	<.06	0.077
CFI	>.95	0.902

Note. Cutoffs as suggested by Hu & Bentler, 1999; Schreiber, et al. 2006; N=212.

Once overall GOF was established, convergent and discriminant validity were tested. Table 20 shows the initial model validity and reliability outputs for all three factors. The reported AVE for both administrative and educational performance were above .5 showing good convergent validity (AP=.51, EP=.56). Knowledge performance showed problems with convergent and discriminant validity. The initial AVE for knowledge performance was than less .5 (KP AVE =.45). For discriminant validity, the maximum shared variance (MSV) should be less than the AVE. Knowledge performance MSV (KP MSV=.491) is larger than the AVE (KP AVE=.45) indicating discriminant validity issues. Administrative and educational performance

show adequate convergent and discriminant validity. Because knowledge performance showed a lack of both convergent and discriminant validity, model respecification was necessary.

Table 20

Proposed Model Validity and Reliability Estimates

	CR	AVE	MSV	MaxR(H)	AP	KP	EP
AP	0.75	0.52	0.118	0.82	0.719		
KP	0.71	0.45	0.491	0.711	0.33	0.671	
EP	0.79	0.57	0.491	0.829	0.343	0.701	0.753

Note. CR=Composite Reliability; AVE=Average Variance Extracted; MSC= Maximum Shared Variance; MaxR(H)= Maximum Reliability; AP=Administrative Performance; KP=Knowledge Performance; EP= Educational Performance

Model Respecification

Respecification is the process by which indicators are examined and changed to enhance the validity of the model (Hair, 2010). Multivariate outliers were removed resulting in a data set of N=209. Knowledge performance showed inadequate convergent and discriminant validity. Inadequate discriminant validity meant that knowledge performance may be cross-loading or correlating with items on other factors. Therefore, all items were examined during the respecification process to ensure overall model with adequate fit, convergent validity, and discriminant validity. First, items with low factor loadings and cross-loading items were removed from the model. In administrative performance, the *preventative maintenance* and *effectiveness of crisis response* items were removed. *Preventative maintenance showed* a factor loading of less than .5, and *effectiveness of crisis response* cross-loaded onto knowledge performance. In knowledge performance, the items about *use of new technology* and the *number of complaints* items were removed as the lowest loading items on this factor. For educational performance, the *number of academic initiatives* items was removed for a low factor loading.

While these items were removed based on empirical assessment initially, it was also determined that theory would remain intact without them.

The new model was re-examined for overall model fit. Respecification resulted in stronger overall model fit. The RMSEA remained the same across both models (RMSEA=.077). The CFI improved from .902 to .966. The χ^2 ratio decreased, indicating a better overall fit than then initial proposed model. Table 21 presents the fit indices for both the proposed and respecified models.

Table 21
Overall Goodness of Fit for Proposed and Respecified Organization Performance Measurement Model

Fit Index	Cut-Off	Proposed Model	Respecified Model
χ^2 to df	< 2 or 3	2.62	2.23
RMSEA	<.08	0.077	.077
CFI	>.9	0.902	.96

Note. Cutoffs as suggested by Hu & Bentler, 1999; Schreiber, et al. 2006; Proposed Model N= 212; Respecified Model N=209.

After GOF was established, validity was retested. The new estimates showed good convergent and discriminant validity for all three factors. Each factor had an AVE above .5 (AP=.537; KP=.575; EP=.539). In addition, the factors demonstrated strong reliability with composite reliability greater than .75 (AP=.76, KP=.79, EP=.77). For discriminant validity, MSV for each factor were less than the AVE.

Table 22
Respecified Performance Model Validity and Reliability Estimates

	CR	AVE	MSV	MaxR(H)	AP	KP	EP
AP	0.766	0.537	0.123	0.83	0.733		
KP	0.796	0.575	0.289	0.869	0.340***	0.758	
EP	0.775	0.539	0.289	0.8	0.350***	0.537***	0.734

Notes. CR=Composite Reliability; AVE=Average Variance Extracted; MSC= Maximum Shared Variance; MaxR(H)= Maximum Reliability; AP=Administrative Performance; KP=Knowledge Performance; EP= Educational Performance; ***=p<.001.

Final Measurement Model

After respecification, the final measurement model of organizational performance contained a total of nine items for three factors. Administrative performance was renamed to financial performance as the remaining items were all financial indicators. The original proposed administrative performance items may have represented more than one construct. Financial performance simplified the model and created a stronger connection to other DLOQ studies using financial performance. Financial performance, knowledge performance, and educational performance each contained three indicators. Table 23 shows the final items associated with each performance factor.

Table 23
Final Measurement Model Factors & Indicators

Performance Factor	Item
Financial Performance (Formerly Administrative Performance)	In my department, the amount of revenue generated is greater this year than last.
	In my department, financial resources were used more effectively this year than last year.
	In my department, occupancy rates were greater this year than last.
Knowledge Performance	In my department, resident satisfaction is greater this year than last.
	In my department, the number of suggestions implemented is greater this year than last.
	In my department, the number of new programs and services is greater this year than last.
Educational Performance	In my department, student learning and development theory was better utilized this year than last.

	In my department, the percentage of residents participating in residence hall programming is greater than last year.
	In my department, programs respond to student needs better this year than last.

Learning Organization Goodness of Fit. Because the learning organization scale has consistently shown validity and reliability across studies, it was tested for overall goodness-of-fit. The results indicated the learning organization model displayed good model fit.

Table 24
Learning Organization Overall Goodness of Fit

Index	Acceptable Level	Reported
χ^2 to df	< 2 or 3	1.6
RMSEA	<.08	0.05
CFI	>.9	0.95

Note. Cutoffs as suggested by Hu & Bentler, 1999; Schreiber, et al. 2006; N=209.

Descriptive Statistics

Descriptive statistics were analyzed following the identification of the organizational performance factors. All complete cases (N=212) were used for the descriptive statistics. Table 25 and Figure 5 show the means scores across learning organization and performance dimensions. The means reported are the averages of the items that make up each dimension. *Strategic leadership* (M= 4.81) had the highest mean among learning organization dimensions, and *embedded systems* was reported as the lowest dimension (M=3.92). For organizational performance, knowledge performance (M=4.23) has the highest mean, while educational performance was reported as the lowest (M=3.98).

Table 25
Learning Organization Measures of Central Tendency

	CL	DI	TL	ES	SV	CE	SL	FP	KP	EP
Mean	4.69	4.27	4.63	3.92	4.67	4.61	4.81	4.21	4.23	3.98
Median	4.67	4.33	4.67	4.00	4.67	4.67	5.00	4.33	4.33	4.00

SD	0.84	0.82	0.71	0.97	0.84	0.80	0.78	1.24	0.84	0.94

CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Shared Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance.

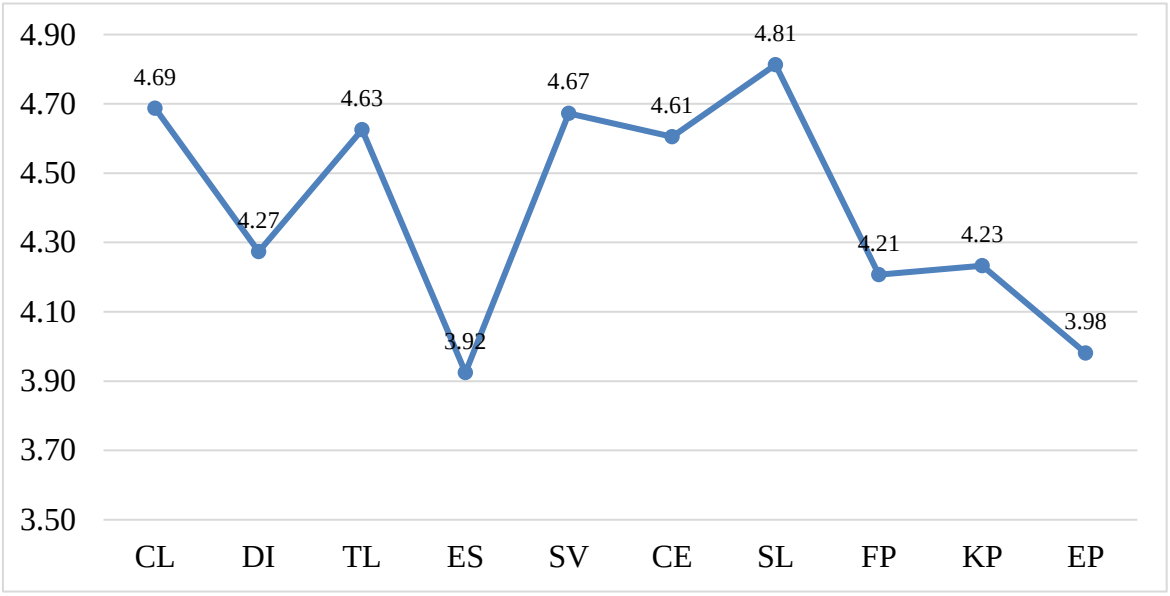


Figure 5. Mean Scores of learning organization and organizational performance dimensions for this study. CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=hared Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance.

Figure 6 shows learning organization dimensions means across selected higher education DLOQ studies and this study. Because of the variety of organizational performance measures in higher education DLOQ studies, they were not included. The reported means of learning organization dimensions were averaged across the studies to create a trend line for studies with reported mean. We see that overall respondents from this study had a higher opinion of the presence of learning organization markers in their department. The overall pattern of high and low dimensions differs in this study from the trends seen in other high education DLOQ studies. While strategic leadership is the highest reported dimension in this study, that is not the case across other areas of higher education.

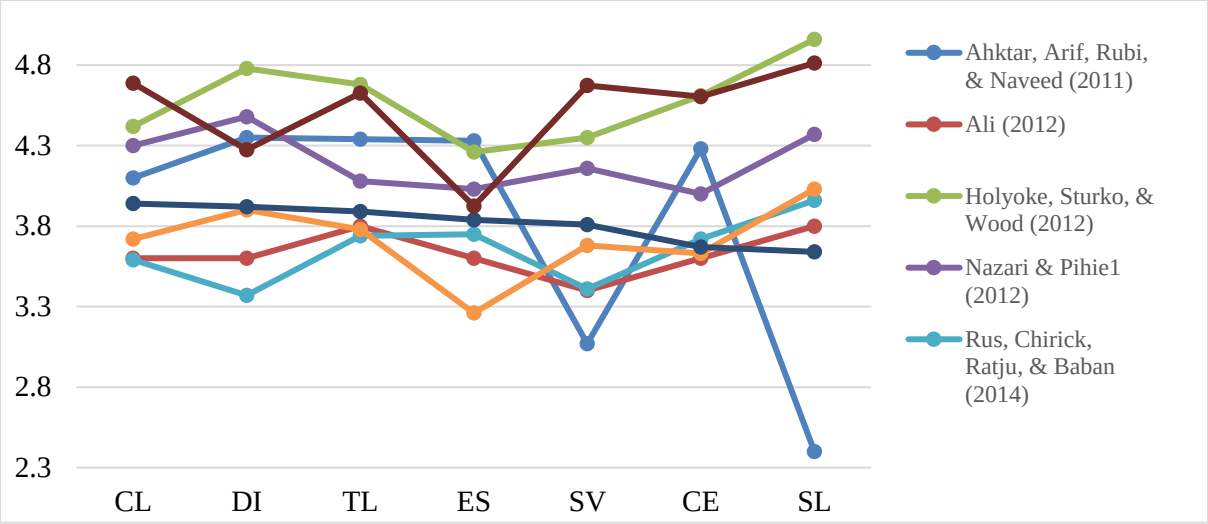


Figure 6. Pattern of means compared with selected higher education DLOQ studies. CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Shared Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance.

While this study showed a different pattern than higher education studies, it showed a similar pattern of high and low dimensions when looking at non-profit studies. Watkins, Milton, and Kurz (2009) study of public-health organization is generally lower than this study and other non-profit DLOQ studies. Figure 7 shows that study is almost mirrors the findings of McHargue (1999) and Wetherington (2010).

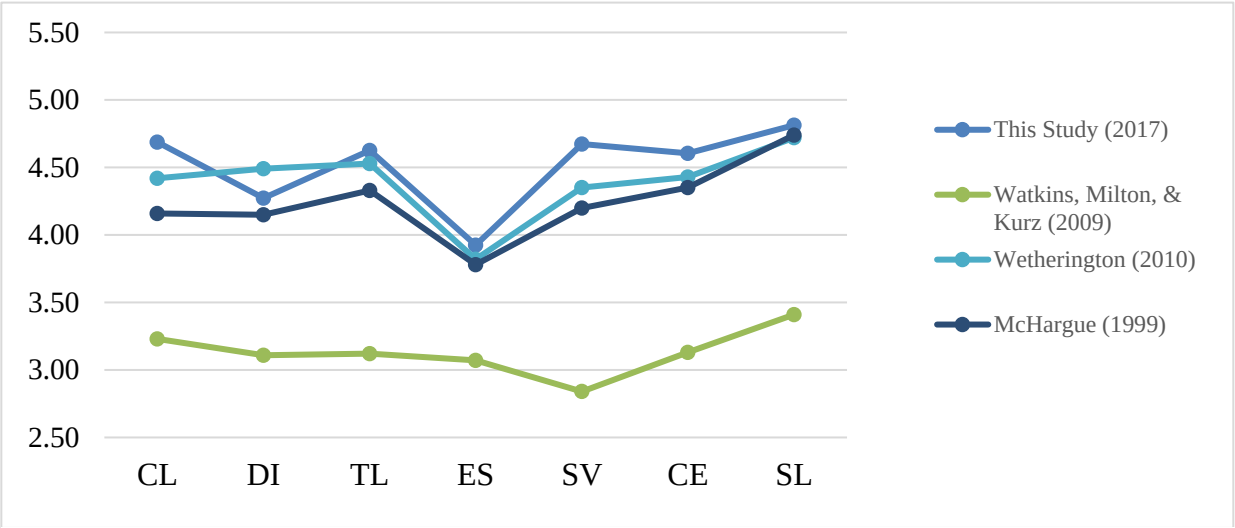


Figure 7. Pattern of learning organization means across non-profit DLOQ studies. CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Shared Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance.

Correlations. Bivariate Pearson correlations were calculated to understand how each dimension was associated with each other. Table 26 shows all seven dimensions of a learning organization positively correlated with all three performance factors. All correlations except one were significant at the p< .01 level. Financial performance did not significantly correlate with dialogue and inquiry (r=.126, p=.067).

Table 26

Descriptive Statistics and Bivariate Correlations of Learning Organization and Performance Factors

	M	SD	α	CL	DI	TL	ES	SV	CE	SL	FP	KP	EP
CL	4.69	0.84	0.76	1									
DI	4.27	0.82	0.77	.564**	1								
TL	4.63	0.71	0.71	.575**	.610**	1							
ES	3.92	0.97	0.73	.424**	.370**	.386**	1						
SV	4.67	0.84	0.81	.591**	.522**	.631**	.503**	1					
CE	4.61	0.80	0.61	.470**	.380**	.424**	.422**	.481**	1				
SL	4.81	0.78	0.84	.632**	.544**	.562**	.477**	.542**	.575**	1			
FP	4.21	1.24	0.72	.233**	0.126	.218**	.273**	.272**	.178**	.253**	1		
KP	4.23	0.84	0.71	.313**	.304**	.266**	.223**	.292**	.199**	.283**	.300**	1	
EP	3.98	0.94	0.78	.381**	.291**	.313**	.338**	.348**	.284**	.360**	.350**	.525**	1

Note: M=Mean; SD=Standard Deviation; α=Cronbach's alpha; CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Strategic Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance; **=p<.01.

Financial performance most strongly correlated with *embedded systems to capture learning* (r=.273, p =.000) and *empowerment toward a shared vision* (r=.272, p =.000). Knowledge performance was most highly correlated with *continuous learning* (r=.313, p =.000) and *dialogue and inquiry* (r=.304, p < =.000). Educational performance showed the strongest correlations with *continuous learning* (r=.381, p=.000) and *strategic leadership* (r=.360, p=.000). For organizational performance, knowledge and educational performance had the strongest correlation with each other (r=.525, p=.000).

Validity and Reliability

Construct validity and reliability were established for organizational performance through the CFA process. The confirmatory factor analysis previously reported in this study showed adequate convergent validity through CR and AVE. CR was greater than .70 for all three organizational performance factors. However, since knowledge performance was adapted from the original DLOQ it was shown to have adequate content validity based on its previous extensive use. Based on these results, the final organizational performance factors and items showed adequate validity.

Cronbach's alpha (α) is a reliability estimate that measures internal consistency of a scale (Spector, 1992). Cronbach's alpha for both performance and the learning organization factors are reported in Table 27. Learning organization factors showed an alpha between .61-.83, with an overall high reliability of .91. Financial, knowledge, and educational performance showed reliability estimates of .73, .71, and .76 respectively. The overall alpha for organizational performance was .79. These estimates indicate that the new factor structure shows acceptable reliability for the scales.

Table 27
Reliability Estimates of Learning Organization and Organizational Performance Dimensions

Dimension	α
CL	0.76
DI	0.77
TL	0.71
ES	0.73
SV	0.81
CE	0.61
SL	0.84
FP	0.72
KP	0.71
EP	0.78

Note: CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Strategic Vision; CE=Connections to the Environment; SL=Strategic Leadership; FP=Financial Performance; KP=Knowledge Performance; EP=Educational Performance; α=Cronbach's alpha.

Multivariate Analysis of Variance

A MANOVA was used to see if differences exist in learning organization and organizational performance perceptions based on different institutional characteristics. A MANOVA analysis tests whether differences exist between groups for more than one dependent variable (Gall, Gall, & Borg, 2003). A MANOVA will identify differences between groups for the collective factors of the learning organization and organizational performance. This test was employed because both the learning organization and organizational performance consist of multiple factors. A MANOVA tells whether the groups differ across the collective factors (Hair, 2010). Table 27 shows which groups were tested for differences.

Table 28
Groups Compared with MANOVA

Characteristic	Groups Compared
Institutional Type	4-year Private vs. 4-year Public Institutions
Departmental Structure	Unified vs. Bifurcated
Departmental Reporting Lines	Reports to Student Affairs vs. Does not report to Student Affairs
Involvement in Public-Private Partnership	Involved in a PPP vs. Not involved in a PPP

MANOVA tests began with looking at differences between different private and public institutions. The first test compared four-year private (N=120) and four-year public(N=80) institutions. Two respondents from two-year schools were excluded from this analysis because of small sample size. The difference between private and public institutions was found to be significant across perceptions of the learning organization (Pillai's Trace=.081, F(7,192)=2.40,

p=.022). However, institution type did not show a significant effect on any individual dimension. The groups did not differ significantly on organizational performance (Pillai's Trace=.017, F(3,196)=1.16, p=.327).

The second MANOVA compared unified (N=183) and bifurcated (N=19) departments. This test revealed significant difference between unified and bifurcated for the learning organization, but not for organizational performance. Unified departments significantly differed from bifurcated departments in their perception of the learning organization (Pillai's Trace=.088, F(7,194)=2.665, p=.012). Organizational structure was a significant effect on the dimensions of *dialogue and inquiry, team learning, connections to the environment, and strategic leadership*. Figure 8 shows mean difference by learning organization differences between unified and bifurcated departments. However, there was no significant difference between the groups for organizational performance (Pillai's Trace= .012, F(3,198)=.826, p=.481).

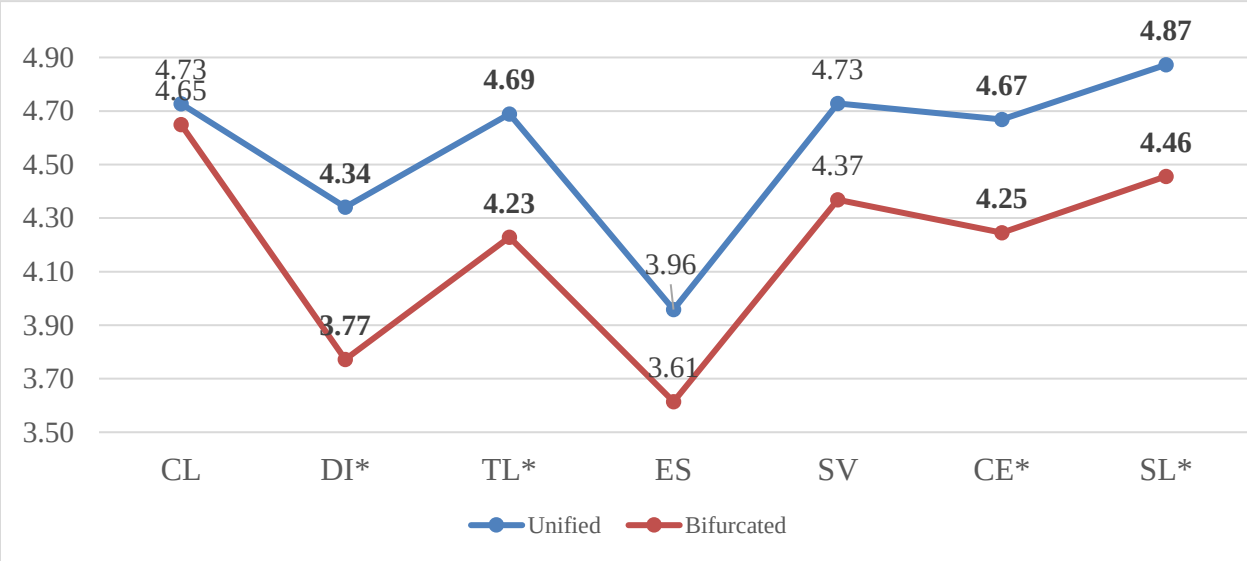


Figure 8. Means pattern of unified and bifurcated departments. *= Significant difference between unified and bifurcated; CL=Continuous Learning; CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Strategic Vision; CE=Connections to the Environment; SL=Strategic Leadership.

Next, a MANOVA looked at differences between departments reporting to student affairs (N=177) and those not reporting to student affairs (N=26). The latter group combined respondents who reported to business affairs or another part of the institution. There were combined to create an adequate sample size. The groups showed no significant difference in learning organization perceptions (Pillai's Trace=.052, F(7,195)=1.53, p=.159). The same was true for organizational performance (Pillai's Trace=.012, F(3,199)=.807, p=.491). No statistical differences were found in either learning organization or organizational performance perceptions based on reporting lines.

Finally, a MANOVA looked the differences between departments involved in a PPP (N=55) and those not involved in a PPP (N=148). Similarly, no differences in perceptions of the learning organization or organizational performance were found between these two groups. The groups differences for the learning organization were not significant (Pillai's Trace=.046, F(7,195)=1.34, p=.235). Perceptions of organizational performance also did not significantly differ based on involvement in a PPP (Pillai's Trace=.023, F(3,199)=1.56, p=.201). Table 29 shows the results of each MANOVA.

Table 29
MANOVA Results for Learning Organization and Organizational Performance

Groups Compared	Pillai's Trace	sig.	F	df	df Error	Power	Effect
4-year Private vs. 4-year Public							
Learning Organization	0.081	0.022*	2.406	7	192	0.855	0.081
Organizational Performance	0.017	0.327	1.159	3	196	0.309	0.017
Unified vs. Bifurcated Departments							
Learning Organization	0.088	0.012*	2.665	7	194	0.895	0.088
Organizational Performance	0.012	0.481	0.826	3	198	0.227	0.012
Report to SA vs. Not Reporting to SA							
Learning Organization	0.052	0.159	1.53	7	195	0.632	0.052
Organizational Performance	0.012	0.491	0.807	3	199	0.223	0.012

Involved in PPP vs. Not Involved in PPP							
Learning Organization	0.046	0.235	1.335	7	195	0.561	0.046
Organizational Performance	0.023	0.201	1.559	3	199	0.407	0.023

Notes: SA=Student Affairs, PPP=Public-Private Partnership, *=significant at the p<.05 level.

Multiple Regression

This study used multiple regression to examine how well the learning organization explains the variance in organizational performance through financial, knowledge, and educational performance. Multiple regression looks at the relationship between one or more independent variables and a dependent variable (Swanson & Holton, 2005). The goal of regression analysis to test the predictive relationship and strength between the variables. This analysis used both standard (enter) regression and stepwise regression. Standard regression enters all independent variables simultaneously into the model to see if they collectively predict the dependent variable, and show which individual predictors are significant. In addition, a stepwise regression was used to understand which dimensions of a learning organization best predict financial, knowledge, and educational performance.

Standard Regression

A standard multiple regression analysis was first conducted to examine to what extent does the learning organization explain the variance of financial, knowledge, and educational performance. The overall model found that collectively all seven dimensions of a learning organization are significantly associated with financial performance ($F(7,201)=3.91$, $p=.000$), knowledge performance ($F(7,201)=3.68$, $p=.001$), and educational performance ($F(7,201)=6.48$, $p=.001$). For financial performance, the model showed that the learning organization accounted for 12% of the variance ($R^{2=}.12$, $p=.000$). However, *embedded systems* was the only significant predictor ($\beta=.21$, $t=2.6$, $p=.010$). The learning organization explained 11% of knowledge

performance variance. None of the dimensions were significant at the p<.10 level. The learning organization showed the strongest explanatory power for educational performance accounting for 18% of its variance (R^2=.184, p=.000). Again, only embedded systems showed significance (β=.21, t=2.6, p=.008). Table 30 shows a summary of the predictive models.

Table 30
Standard Regression Model Summary for Organizational Performance

Dependent Variable	R	R^2	Adjusted R^2	Standard Error of the Estimate	F Change	df1	df2	Sig. F Change
FP	.347	0.12	0.089	1.16318	3.918	7	201	.000
KP	.337	.114	.083	.77581	3.685	7	201	.001
EP	.429	.184	.156	.85019	6.487	7	201	.000

Note. Predictors: All seven dimensions of a learning organization.

Stepwise Regression

To test which dimensions most significantly contribute to each of the three performance factors, a stepwise regression was conducted next. Stepwise regression is designed to maximize the proportion of variance accounted by the minimum number of variables (Cohen et al., 2003). Stepwise regression adds and removes variables to find the combination with highest predictive power (Swanson & Holton, 2005). Table 31 shows *embedded systems* and *strategic leadership* emerged as the significant predictors of financial performance (F(2,206)=12.09, p=.000). The first model showed *embedded systems* (β=.293, t= 4.4, p=.000) as the most significant predictor of financial performance (F(1,207)=19.4, p=.000). *Embedded systems* accounted for 8% of the variance in financial performance. The second model indicated that together *embedded systems* (β=.222, t=2.9, p=.003) and *strategic leadership* (β=.156, t=2.11, p=.036) accounted for 10% (of the variance in financial performance (R^2=.104).

Table 25

Financial Performance Stepwise Regression Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	R^2 Change	F Change
Step 1						
ES	.293*	0.086	0.081	1.16835	0.086	19.408
Step 2						
ES, SL	.324**	0.105	0.096	1.15870	0.019	4.463

Note. Dependent Variable: Financial Performance; ES=Embedded Systems; SL=Strategic Leadership; *p<.001;**p<.05.

A stepwise regression for knowledge performance showed comparable results. Table 32 shows a summary of each step. Together, *strategic leadership and embedded systems* were the most significant predictors of knowledge performance (F(2,206)=11.9, p=.022). Model 1 indicated *strategic leadership* (β=.286, t=4.3, p=.000) accounted for 8% of knowledge performance variance(F(1,207)=11.1, p=.000). Model 2 showed that *strategic leadership* (β=.211, t=2.8, p=.005) and *embedded systems* (β=.165, t=2.2, p=.027) accounted for 10% of the variance in knowledge performance (R^2=.095).

Table 32

Knowledge Performance Stepwise Regression Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	R^2 Change	F Change
Step 1						
SL	.286*	0.082	0.078	0.77806	0.082	18.492
Step 2						
SL, ES	.322**	0.104	0.095	0.77070	0.022	4.972

Note. Dependent Variable: Knowledge Performance; ES=Embedded Systems; SL=Strategic Leadership; *p<.001;**p<.05.

The results for educational performance were also similar. As seen in Table 33, this stepwise regression resulted in two models indicating *embedded systems* and *strategic leadership* as most significant contributors to educational performance (F(2,206)=21.34, p=.001). In the first model *embedded systems* (β=.358, t= 5.5, p=.000) was the most significant predictor of

educational performance (F(1,207)=30.5, p=.000). *Embedded systems* accounted for 12% of the variance in educational performance (R^2=.124, p=000). The second model indicated that together *embedded systems* (β=.252, t=3.5, p=.000) and *strategic leadership* (β=.233, t=3.27, p=.001) accounted for 16% of the variance in educational performance (R^2=.164). Table 34 shows a summary of the stepwise regressions.

Table 33

Educational Performance Stepwise Regression Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	R^2 Change	F Change
Step 1						
ES	.358*	0.128	0.124	0.86599	0.128	30.501
Step 2						
ES, SL	.414*	0.172	0.164	0.84629	0.043	10.748

Note. Dependent Variable: Educational Performance; ES=Embedded Systems; SL=Strategic Leadership; *p≤ .001.

Table 34

Regression Coefficients Summary for Stepwise Regressions on Performance Factors

Dependent Variable		R^2	Adj. R^2	B	Std. Error	Beta	t	Sig.
Financial Performance		0.105	0.096					
	Constant			1.864	0.539		3.458	0.001
	ES			0.283	0.095	0.222	2.998	0.003
	SL			0.256	0.121	0.156	2.113	0.036
Knowledge Performance		0.104	0.95					
	Constant			2.587	0.358		7.218	0.000
	SL			0.230	0.081	0.211	2.855	0.005
	ES			0.140	0.063	0.165	2.230	0.027
Educational Performance		0.172	0.164					
	Constant			1.635	0.394		4.153	0.000
	ES			0.245	0.069	0.252	3.546	0.000
	SL			0.290	0.089	0.233	3.278	0.001

Note. ES=Embedded Systems; SL=Strategic Leadership

Summary

This chapter reported findings from the confirmatory factor analysis, descriptive statistics, MANOVA, and multiple regression analyses. The findings show that institution type and organizational structure effect perceptions of the learning organization. No group differences were found across institutional characteristics for organizational performance. Multiple regression analysis found that the learning organization was a significant, but modest predictor of all three organizational performance dimensions. Embedded systems to capture learning and strategic leadership were the two strongest predictors of financial, knowledge, and educational performance.

CHAPTER 5

CONCLUSION

This chapter summarizes and discusses the findings of this study. This chapter also explores theoretical and practical implications, limitations, and future directions of research.

Summary of Findings

The purpose of this study was to examine the learning culture of campus housing departments and assess its relationship to organizational performance. Using descriptive and inferential statistics, this study analyzed the presence of a learning culture, differences in perceptions of the learning organization and organizational performance based on institutional characteristics, and which dimensions of a learning organization best explain variance in financial, knowledge, and educational performance. The research questions for this study were:

1. To what extent do campus housing departments exhibit the characteristics of a learning organization?
2. To what extent do perceptions of learning organization characteristics differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
3. To what extent do perceptions of organizational performance differ based on institutional type, departmental structure, reporting lines, and involvement in a public-private partnership?
4. To what extent do dimensions of a learning organization explain observed variance in organizational performance?

5. Which dimensions of a learning organization best explain observed variance in organizational performance?

In comparison to other DLOQ studies, campus housing departments have a higher perception of themselves as learning organizations. However, the pattern across learning organization dimensions follows non-profits studies more than higher education studies. For research question two, results showed learning organization perceptions only significantly differed based on institutional type and departmental structure. Reporting lines and involvement in a PPP did not differ by organizational performance. For research question three, no significant group differences were found for organizational performance. Regression analysis revealed the learning organization is significantly associated with all three performance factors. While significant, the learning organization accounted for only a small proportion of variance in organizational performance as compared with other studies. *Embedded systems* and *strategic leadership* were the strongest predictors of all three organizational performance factors which are consistent with the body of DLOQ literature.

Discussion of Findings

Confirmatory Factor Analysis

This study began with a confirmatory factor analysis of proposed organizational performance factors. As previously reported, the CFA showed good overall model fit, but poor convergent and discriminant validity. The model respecification process resulted in dropping proposed items from all three factors. During initial analysis, the item regarding preventative had factor loading of less than .4 making it eligible for deletion. The effectiveness of crisis response item cross-loaded with knowledge performance. For financial performance, items regarding *preventative maintenance* and *crisis response* were removed. Respecification left

items focused on financial health resulting in reverting back from labeling the variable "administrative performance" to "adapted financial performance or financial performance" since the scale used two of Watkins and Marsick's (1997, 1999) DLOQ financial performance items, and included one campus housing item about occupancy rates. As noted in Chapter 2, housing departments are organizations with large financial responsibilities. The adapted financial performance factor reiterates the importance of recognizing financial health as a significant dimension of organizational outcomes. For knowledge performance, *the use of new technology* and *number of complaints* were dropped from the measurement model. Both items have been validated and show strong reliability in previous DLOQ studies. Because this is the first use of this scale in a campus housing context, these two items may not have been clear to the respondents. While technology is a core tool for housing department, SHOs may not see how technology relates to the outcomes of their organizational work. Respondents may not have fully understood what was meant by use of new technology. The respondents may see technology as a financial and efficiency investment as opposed to a way to leverage knowledge resources. Like technology, reducing complaints may not seem as a relevant part of organizational performance in campus housing. Housing professionals often see handling complaints as a normal part of the learning and development process for its stakeholders. However, documenting complaints and their resolution are a part of higher education accreditation processes (Southern Association of Colleges and Schools [SACS], 2018). Additional data may help shed light on why reduction of complaints was not a strong fit in this model. While not included in the final measurement model, those two knowledge performance items are relevant when assessing campus housing outcomes. The newly developed factor of educational performance was validated with the CFA. Student learning and development is an important assessment area for student service functions

like campus housing (ACUHO-I, 2017; Schuh & Upcraft, 2003). Educational performance moves beyond student learning to focus on the department's role as educators. The *number of academic initiatives* was dropped in the educational performance variable. Academic initiatives remain active in conversations about student learning and development in residence halls, but quantity may not be the best way to measure academic outcomes. Further investigation is needed to better understand why the dropped items did not fit well with this model. The CFA validated the two original DLOQ performance factors as well as a newly developed educational performance factor.

The performance factors recognize three of the core functions of a housing department. Campus housing serves as "…a business, as a community, and as an educational component of the institution" (Horvath & Stack, 2013, p. 4). Campus housing begins and ends with managing financial resources (Bradley, 2013). Financial measures from student affairs assessment models have focused on costs or having adequate resources (CAS, 2016; Upcraft & Schuh, 2003). Financial performance ties money toward the present and future growth, not just baseline needs. As a community, a housing department needs to be able to serve and continuously improve the residential experience. The core of knowledge performance is recognizing how well the organization uses knowledge resources to improve (Marsick & Watkins, 2003). Housing professionals need to articulate professional knowledge and competencies, and to relate them back to larger organizational goals (Goldman, 2013). Knowledge performance helps demonstrate how well competencies are utilized to improve programs and services. Campus housing departments are also expected to contribute to student success by supporting learning and development outside the classroom (Blimling, 2009; McCuskey, 2013). Educational performance focuses on the contributions to student learning and development from the

organizational perspective. It is a way for departments to demonstrate organizational knowledge outcomes. Educational performance does not replace student learning and development assessment. Rather, it provides a check for intentional steps departments are using to enhance student learning and development. Together these three factors give campus housing departments a place to start when talking about organizational performance from a holistic multidimensional perspective. These performance factors can also help as departments will be increasingly asked to demonstrate outcomes and contributions (Hamrick & Klein, 2015).

The CFA process changed both factors and items for this study. While the model used, was a better fit for this data set, it still left out potentially relevant indicators of performance from all three factors. Each of the original proposed items was linked to literature from the scholarly and professional worlds. In addition, there are other potential departmental characteristics like residency requirement or availability of programs that may affect performance outcomes. This process outlined the delicate process of a researcher balancing statistical guidelines and theoretical foundations when trying to confirm a model. This process resulted in only small tweaks, but more research is needed to continue to hone organizational performance in this context.

Campus Housing Departments as Learning Organizations

Numerous authors have encouraged student affairs units to become learning organizations (Brown, 1996; Kezar, 2011; Kuh, 2003). That encouragement has never presented the DLOQ. DLOQ studies from different geographical contexts have empirically examined how areas of universities live up to being learning organizations (Ali, 2012; Holyoke et al., 2012; Yu & Chen, 2015). This study expanded that body of knowledge to the new functional area of campus housing departments. Figure 9 shows the pattern of means across each learning

organization dimension for selected studies in higher education, non-profits, and Watkins and Dirani's (2013) meta-analysis study. This study displayed generally higher perceptions of the learning organization compared to the other published studies. The highest and lowest dimensions were consistent with the body of DLOQ literature reviewed by Watkins and Kim (2017). *Strategic leadership* was the highest rated dimension (M=4.81). *Embedded systems* was the lowest rated dimension (M=3.92). High and low perceptions differed from other higher education studies and the meta-analysis, but they were consistent with non-profit DLOQ studies.

We see that this study most closely mirrors the pattern of the non-profit DLOQ studies (McHargue, 1999; Watkins, Milton, Kurz, 2009; Wetherington, 2010). Since most higher education DLOQ studies came from the academic arena (Ali, 2012; Holyoke, 2012; Kumar & Idris, 2006; Ponnuswamy & Manohar, 2016; Yu & Chen, 2015), this discrepancy could reflect cultural differences between academic affairs and student services. Campus housing departments may match more with service-oriented organizations, like non-profits, as opposed to the academic side of a college or university. Student services like campus housing arose out of increasing needs to support students outside the classroom using specialized staff (Coomes & Gerda, 2016). This meant that services such as student conduct, housing, crisis response, involvement, and recreation were established as separate and supporting to the academic endeavors of the institution. Departments like campus housing included service and administration as opposed to just educational outputs (Barham & Scott, 2006). The plea for units to be ready to adapt and change permeates the literature of the future of housing and student affairs (McCuskey, 2013; Porterfield, Roper, & Whitt, 2011).

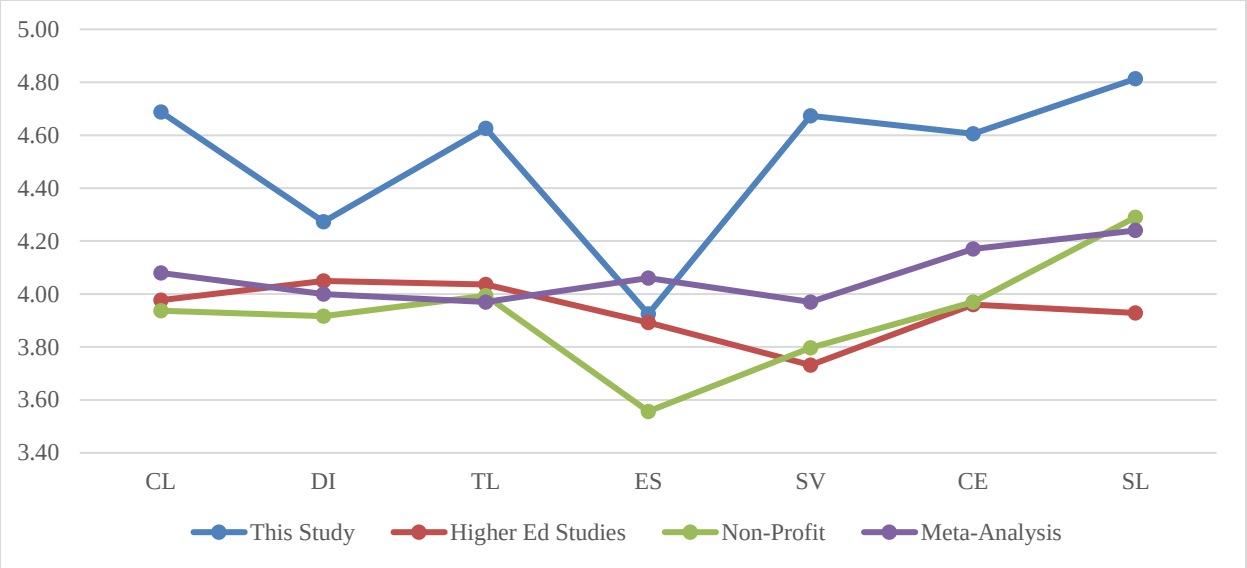
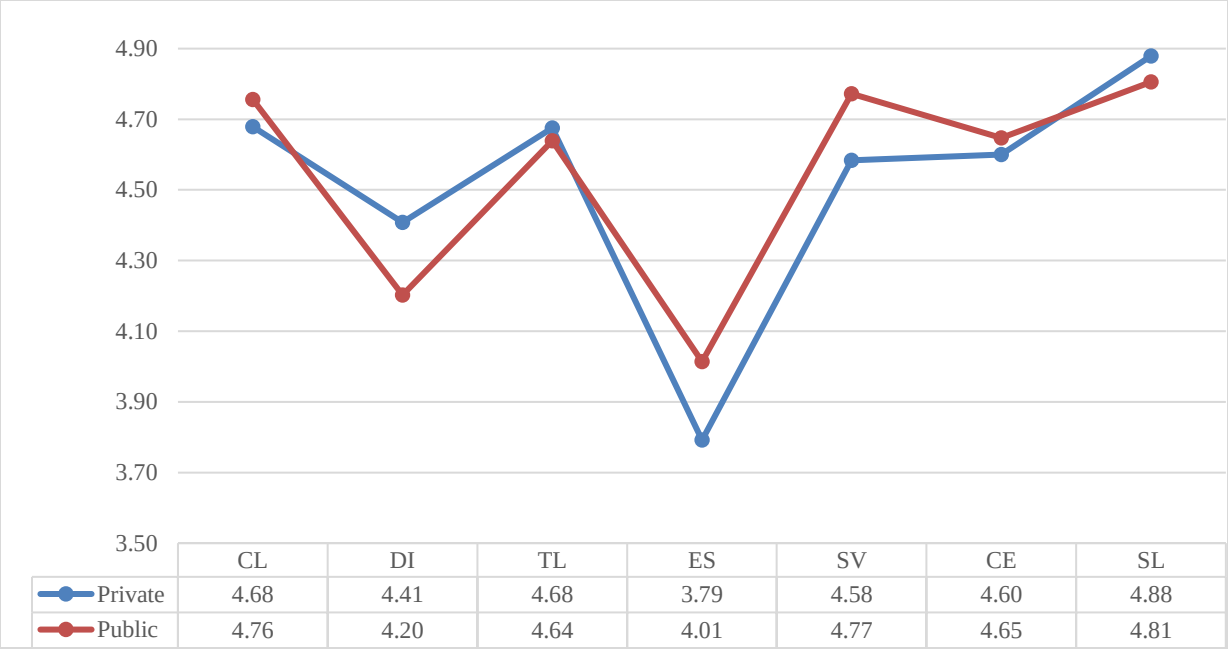


Figure 9. Learning organization patterns across organizational contexts. CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Strategic Vision; CE=Connections to the Environment; SL=Strategic Leadership*;* Meta-Analysis (Watkins & Dirani, 2013); Non-Profit (McHargue, 1999; Wetherington, 2010; Watkins, Milton, & Kurz, 2009).

Differences Based on Institutional Characteristics

All institutions are different. Not all those differences affect perceptions of the learning or organizational performance. Research questions two and three looked at how learning organization and organizational performance perceptions differed based on selected institutional characteristics. MANOVA results indicated an overall significant difference between four-year private and four-year public institutions' perceptions of the learning organization ($p<.05$). However, no individual dimensions were found to be significant. Public institutions had a slightly higher perception of themselves as learning organizations compared to private institutions (Private M=5.52; Public M=4.55). Figure 10 shows learning organization dimensions means for private and public institutions.



	CL	DI	TL	ES	SV	CE	SL
Private	4.68	4.41	4.68	3.79	4.58	4.60	4.88
Public	4.76	4.20	4.64	4.01	4.77	4.65	4.81

Figure 10. Mean pattern for private and public institutions across learning organization dimensions. CL= Continuous Learning; DI=Dialogue & Inquiry; TL=Team Learning; ES=Embedded System; SV=Strategic Vision; CE=Connections to the Environment; SL=Strategic Leadership; LO=Learning Organization, which is the mean of all seven dimensions.

Public and private institutions often vary in organizational cultures (McGuiness, 2011). Both have similar missions, but funding, governance, and academic focus differences may affect the organizational culture of administrative units like campus housing (McGuiness, 2011). These findings show that even within higher education differences exist.

We also see learning organization differences between unified and bifurcated housing departments. Beyond an overall significant difference, the dimensions of *dialogue and inquiry, team learning, connections to the environment, and strategic leadership* significantly differed based on organizational structure ($p<.05$). Figure 11 shows the means for unified and bifurcated departments.

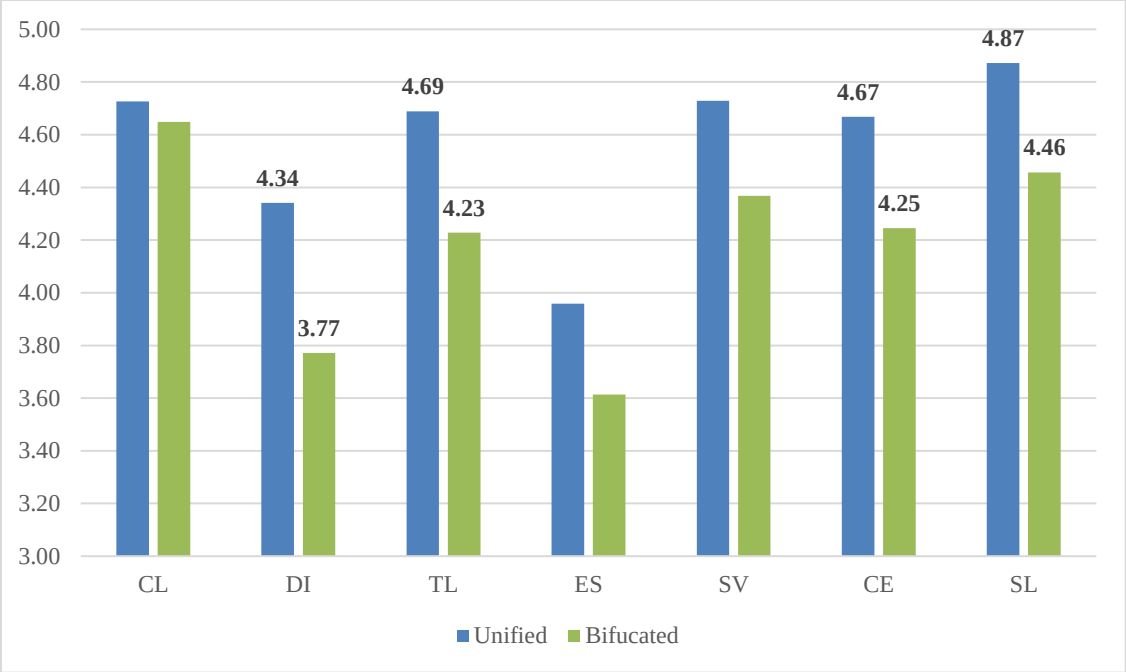


Figure 11. Learning organizations means for unified and bifurcated departments. Labeled individual dimensions means indicate significant differences between unified and bifurcated departments. CL= Continuous Learning; DI= Dialogue & Inquiry; TL= Team Learning; ES= Embedded System; SV= Strategic Vision; CE= Connections to the Environment; SL= Strategic Leadership.

Unified departments bring numerous functional areas into one organization. This may result in areas having to think beyond their own specialized function. Working across functions may lend more opportunity for *dialogue and inquiry*, *team learning*, *connections to the environment, and strategic leadership*, leading to a more robust learning culture. In a bifurcated system, subject matter experts are siloed together. This may result in feeling less of a need to work across groups and teams. CAS (2016) advocates for residence life and housing departments to be unified departments with one leader. This study provides data to show how unified departments may have stronger learning cultures.

In looking at perceptions of the learning culture, departments reporting to student affairs did not significantly differ from those not reporting to student affairs (p=.16). Departments do

not need to rely on outside entities to set the tone. Being a learning organization can be prioritized and achieved within a department, not just a larger division or institution. Larger organizational structures and their units are always evolving based on institutional and student demands (Kuk, 2016). However, organizational culture is not defined by administrative boundaries, but by collective goals, interactions, and meanings (Alvesson, 2002). Learning culture can be preserved even as the large structures change around them.

Looking at involvement in a PPP, the findings showed similar results. Departments involved in a PPP also do not significantly differ from those who do participate in a PPP as learning organizations. PPPs are often used to help campus housing departments relieve financial pressure, expand housing capacity, or help manage facilities (Bayless et al., 2013). The private sector brings a certain skill set to housing departments through PPPs (Bayless et al., 2013). However, PPPs do not necessarily change the department as a learning organization. PPPs can be viewed as partnerships that have many benefits outside of organizational learning.

For organizational performance, no group differences were found based on institutional characteristics. Performance metrics may be less sensitive to institutional environment or structure than to other variables. These findings provide a foundation for studying organizational performance across diverse institutions and functions.

The Relationship between the Learning Organization and Performance

Both the bivariate correlations and multiple regression showed a significant relationship between the learning organization and organizational performance for campus housing departments. The positive correlation between learning and performance is the chorus of DLOQ research. Financial performance showed the strongest correlation with *embedded systems* (r= .273, p=.000) and *empowerment toward a shared vision* (r=.272, p=.000). Financial

performance is related to group and organization level learning efforts. This is consistent with other DLOQ studies (McHargue, 2003; Watkins, et al, 2009; Wetherington, 2010). *Continuous learning* (r=.313, p =.000) and *dialogue and inquiry* (r=.304, p =.000) showed the strongest relationship with knowledge performance. Knowledge performance correlated most with individual and group learning. Giving people an opportunity to learn on their own and in groups relates to better performance (Nurmala, 2014; Watkins, 2017). This relationship gives departments a rationale to invest in learning opportunities. Educational performance connects to the individual and organizational level of the learning organization. Educational performance showed the strongest correlations with *continuous learning* (r=.381, p=.000) and *strategic leadership* (r=.360, p=.000). Housing departments as educational organizations need professionals to stay up to date on the needs of students. On-going learning can enhance housing's role not just as administrative services but as a part of the educational experience. Leaders also need to model and set the organization vision for learning (Watkins, 2005). This study provided evidence that learning at all levels is related to performance. The data presented give a rationale for moving learning from an expense into an investment to improve performance.

A standard regression analysis revealed that the learning organization accounted for 12%, 11%, and 18% of the variance in financial, knowledge, and educational performance respectively. The explanatory value of the learning organization dimensions for both knowledge and financial performance was not as strong as in other studies. Yu and Chen (2015) found that the learning organization dimensions explained 41% of variance in knowledge performance with university librarians. Kumar (2005) found that learning organization dimensions explained 39% of the variance of knowledge performance and 50% of the variance in financial performance at

Malaysian private universities. McHargue (1999) found that learning organization dimensions account for 25% of the variance in knowledge performance and 26% of the variance in financial performance in non-profits. Because educational performance is a newly developed factor, it is difficult to compare it as a predictor. The learning organization did account for 14% of the proportion of variance in education performance. This was the largest among the three factors in educational performance. This study revealed a significant, but less robust predictive relationship between the learning organization dimensions and organizational performance. Davis and Daley (2008) have noted that, given the complexity of organizational performance and the multiple causes that can influence it, even the variance in organizational performance explained by this study is significant.

Embedded systems and *strategic leadership* were the top two predictors for financial, knowledge, and educational performance. This finding is consistent with DLOQ studies across contexts. Yu and Chen (2015) found the same dimensions to be significant predictors of knowledge performance. Kumar (2005) did not identify specific dimensions but reported that organization level dimensions were the strongest predictors for knowledge and financial performance. For Kumar, individual level dimensions also predicted financial performance. The findings of this study match the findings of McHargue's (1999) study of non-profits. McHargue presented *embedded systems* and *strategic leadership* as the strongest predictors of knowledge and financial performance. Wetherington (2010) also found that *embedded systems* and *strategic leadership* predicted knowledge performance, but only *strategic leadership* significantly predicted financial performance. Across contexts, organization level dimensions emerge as the primary predictors of knowledge and financial performance. *Embedded systems* and *strategic leadership* are also shown to be the strongest predictors of educational performance. Within the

organizational performance factors, educational performance most highly correlated with knowledge performance (r=.525). As a newly developed scale, this an important correlation to examine. Educational performance items assessed how well organizations use their knowledge and expertise as educators to help students learn and develop. The way some items were written may make them load as a subscale of knowledge performance. Or, it may be that in this setting, this is a type of knowledge performance. Additional data and construct validation is needed to examine this correlation further.

Kim and Watkins (2017) noted that system or organizational level dimensions show the strongest relationships to performance. Correlations presented from this study have shown relationships between different levels of learning and different performance factors. While all levels of the learning organization relate to performance, the organization levels best predict performance.

Conclusions

Based on the discussion of findings presented, three major conclusions can be drawn from this study**.** First, this study supported previous findings of the connection between the learning organization and organizational performance in a new context of campus housing. Second, the findings revealed campus housing departments should continue to invest in systems and leadership for learning to impact performance. Third, housing departments need to look at how departmental structures impact learning culture.

Deciding to invest time, talent, and treasure into become a learning organization needs an organizational payoff (Ellinger et al., 2003). Organizations must intentionally decide to become learning organizations. The positive relationship between the learning organization and all three performance factors shown in this study could be the first step. Only the relationship between

financial performance and *dialogue and inquiry* was found to not be significant (p>.05). In addition, it added to the current body of evidence positively correlating knowledge with several types of organizational performance (Ali, 2012; Davis & Daley, 2008; Kim, 2017; McHargue, 2003). One motivating factor to become a learning organization is seeing how learning predicts organizational performance (Ellinger et al., 2003). In this study, the learning organization positively predicted all three areas of organizational performance (Financial Performance R^2=.12, p=.00; Knowledge Performance; R^2=.11, p=.001; Educational Performance R^2=.18, p=000). Departments which invest in learning at the organization level can have better performance. Learning as a positive correlate and predictor of performance gives organizations data to show how learning can help organizational outcomes.

This study maintained what other studies had previously shown. The organization level of learning best predicts performance (Watkins, 2017; Watkins, Kim, & Lu, 2017). *Embedded systems* and *strategic leadership* were the significant predictors for all three performance factors (p <.001) in this study. Embedded systems capture and store knowledge so that it can be accessed beyond individuals or groups (Marsick & Watkins, 2003). *Embedded systems* help create knowledge repositories. Knowledge repositories are the organization's "collective intelligence and memory" (Rosenberg, 2004, p. 195). For housing departments, this often means technology. Housing departments use software to store departmental files, educational program information, assessment data, and student information (Mian & Rushing, 2013). Beyond just a storage solution, housing departments should utilize these as ways to build and use knowledge for the department. Having a place where knowledge is stored institutionalizes this asset, so it remains as people in the organization change. This can help be helpful in times of change and transition. Leadership for learning is also an important predictor of performance. Leadership is

a professional competency for housing professionals (ACUHO-I, 2012). Leadership for learning means leadership supports, advocates for, and role models learning to others in the organization (O'Neil, 2003). Leadership development programs need to include skills that make a learning a priority and foster a learning organization. The housing profession has many leadership development programs. As the housing profession talks about what it means to be leader, strategic leadership for learning should be added as a leadership competency. Both the system level and leadership give responsibility to the department to cultivate a learning organization. The organization can also reap the most rewards by investing in both systems and leadership.

The significant difference between unified and bifurcated departments shows that organizational set-up can affect organizational capacity and culture. Unified systems showed an overall and higher perception of their learning culture as opposed to bifurcated systems. There is no "right way" to organize student affairs units like housing departments (Kuk, 2016). However, understanding the impact of these different arrangements gives leaders and change agents data that can help inform decisions on the right way to set-up a department. Complex challenges are only going to increase for housing departments (Dunkel & Baumann, 2013). Departments need to be organized to meet those needs (Kuk, 2013). Unified departments often have a larger set of functional areas including housing operations, residence life, maintenance, business administration, and others. Higher perceptions of a learning culture may show that each of these areas learns from each other while working across expertise areas. This may mean they have a higher learning culture and greater capacity for change. While unified departments are often more complex and cumbersome, these findings showed a distinct advantage in one over the other. The findings offer a way to start a conversation about set-up can be about more than just organizational design.

Implications for Theory

This study adds to the body of learning organization and human resource development literature by continuing to demonstrate the validity of Watkins and Marsick's (1993, 1996) learning organization model and the DLOQ. The DLOQ has assessed learning cultures in educational, governmental, business, and non-profit contexts (Watkins & Kim, 2017). Watkins and Kim (2017) recommended addition DLOQ validation in new contexts to assess the strength of the model. This study expanded DLOQ research into a new area of campus housing at colleges and universities. It adds to the overwhelming evidence of the significant and positive relationship between the learning organization and performance. This study also supports previous research on which dimensions are the strongest predictors of both knowledge and financial performance. Organizational investment in strong leadership for learning and systems which help document, store, and transfer learning can help performance. This study illustrated the importance of leadership, the next step is continuing to help organizations develop those strategic leaders.

This study continues the conversation on how to define and measure organizational performance. This study validated DLOQ financial and knowledge performance factors in a new context of campus housing. With educational performance, it also introduced a new performance factor into the conversation. Contributing to student learning is an important role for campus housing. Educational performance translates that the role of impacting student learning and development into organizational performance indicators. However, the question remains as to how these new and adapted dimensions related to mission performance. Mission performance is a key factor in non-profit DLOQ studies (McHargue, 1999; Wetherington, 2010). This study did not utilize mission performance, but rather focused on different functional areas

of housing departments. That decision added new indicators of performance, but it skewed away from other non-profit DLOQ studies. This opens the conversation for looking at how to dimensionalized mission in a complex, multifunction organization such as a housing departments.

As new constructs of performance are introduced, additional validation studies are necessary. Numerous scholars have worked to validate both learning organization and performance dimensions (Ellinger, Ellinger, Yang, 2002; Song, Joo, & Chermack, 2009; Yang, 2003). This study continues their work through validation of both parts of the DLOQ. This study moves campus housing scholarship and research beyond assessment models and professional standards toward a focus on the multi-dimensionality of organizational performance.

This DLOQ study creates a bridge between organizational development and higher education administration research and theory. Higher education scholar to look for theories that can help explain and guide institutions to be more effective. This study put a new model of a learning organization in the higher education scholarship. It moved beyond Senge. It gives scholars a validated and evidenced-model to look at culture, learning, and performance in housing and other student affairs departments. In addition, it adds a new organizational context for the learning organization to be explored. This study opens the doors for scholars in both areas to bridge their conversations with this perspective of the learning organization and organizational performance.

Implications for Practitioners

A learning organization is more than just an organizational philosophy. It is an actionable organizational development strategy. This study illustrated that by using Watkins and

Marsick's model and instrument housing professionals can better understand their learning culture and how it relates to performance.

This study opened the door to show the DLOQ as a useful tool for campus housing. The DLOQ is an accessible tool which departments can deploy easily. Watkins and O'Neil (2013) provide a guide on how organizations can use the DLOQ. O'Neil (2003) also provides a guide for an organization to interpret results of the DLOQ. Utilizing the DLOQ within departments and across the profession can create new ways for professionals and leaders to dialogue about increasing learning culture and capacity for change. Departments can also integrate part of the DLOQ into larger assessment projects to see how learning culture relates to variables beyond performance. This study housing departments and professional a common road map to becoming more adaptable and flexible organizations through becoming learning organizations.

At its heart, the DLOQ is meant to positively impact the work of organizations. The seven dimensions of a learning organization are practical ways departments can invest in becoming a learning organization. This studies helps shift the seven dimensions from theoretical ideals to practical strategies. Through the learning organization lens, providing a variety of formal and informal learning on the job supports *continuous learning*. Meetings and committees can be seen as more than just pointless gatherings. They are now methods for *dialogue and inquiry, team learning and collaboration, and empowerment toward a shared vision.* Year-end reports and shared folders become *embedded systems to capture and share learning*. Working with internal and external stakeholder ensures that there are *connections to the environment.* Leadership which role models and support learning becomes *strategic leadership for learning.* Many housing departments already have these practices in place. However, looking at them with

a learning organization lens may reaffirm why these practices are important, and that together they lead to being a learning organization.

Investing in all seven dimensions at once may not seem practical for housing departments. This study offers a starting point by showing *embedded systems to capture and share learning* and *strategic leadership* as the strongest predictors of performance. Practitioners can use these two dimensions to build organizational capacity for adaptability. For example, having an *embedded system* in place where staff members document, store, and share their work can help make managing change easier. A department may use a file sharing and storage system. In the day to day rhythm of an academic year, these systems may seem superfluous. During change, they become a source of calm and reassurance. Departments can examine progress, find historical information, and document processes and procedures. Staff do not have to re-create information or worry about losing best practices because they have tools which have captured and made that knowledge available to others. These systems mean that while change happens, the organization can keep performing.

As staff members come and go, organizational culture can be reinforced or erased. *Strategic leadership* helps to ensure that learning culture remains active. If departmental leadership does not role model or empower staff toward documenting, sharing, and using knowledge from others, a file sharing system may just become a file drawer. Leadership sets the tone and often outlines resources in the department. Leaders must set the vision and tone of the learning culture. This means that as people come and go, learning continues throughout the system. Leaders must set aside resources that go beyond professional development funds. Leaders set aside other resources, like time, to reinforce a learning culture. Leaders for learning also engage in both individual and team learning. This shows the organization that learning is a

part of leadership. These two dimensions offer easy ways housing departments can take steps to becoming a learning organization while also showing a positive impact on performance.

Beyond just the learning organization, this study's organizational performance framework can help housing professionals tell the story of their department. These performance factors allow housing professionals to define performance in a multi-dimensional and contextually specific way. By being able to define performance in a relevant way, housing departments can demonstrate strengths and areas of improvement, better advocate for resources, benchmark against other departments, show growth and improvement, and define success for themselves.

A common framework also provides a foundation for understanding what success and performance mean across the whole profession. A common framework lets those outside of housing see how performance is measured in housing. Financial, knowledge, and educational performance do not cover all the facets of campus housing departments, but they encompass the core purposes of housing departments as business units, knowledge organizations, and educational providers. These factors give housing professionals a way to look performance that goes beyond professional standards and assessment models.

This study takes a robust research model and brings into the everyday practice of campus housing. It provides evidence for practitioners to make decisions that will ultimately benefit the work of the department. Hamrick and Klein (2014) note that "advocating for data-driven decision making and dynamic research-to-practice-to-research collaborations, student affairs educators assist their institutions in moving away from reputation-based to performance-based indicators of institutional quality, and ultimately improve" (p. 21). This study brings theory and practice together to help improve the campus housing profession.

Change is constant in a housing department. Housing professionals and departments must be equipped to be able to handle those changes while also continuing to serve students at a high level. This study offers insight into how embracing the learning organization can help housing departments navigate plan and unplanned change. It also provides ways for campus housing departments to start that journey immediately.

Limitations and Future Directions for Research

This study is one of many in a large body of learning organization research. However, it stands alone in the context of campus housing research. More studies are needed to continue to validate the DLOQ in this context as well as to gain a larger picture of campus housing departments as learning organizations. DLOQ research needs to continue across new contexts and cultures (Watkins & Kim, 2017). This could include more research in higher education, student affairs, and campus housing. This study only focused on housing departments in the United States. Campus housing is growing in areas like the United Kingdom, Australia, and South Africa. More studies are needed in housing departments outside of the US. The DLOQ has been used on almost every continent making it easier to use and validate in new countries (Song, et al., 2013).

Another limitation of this study is the sample using only senior housing officers as respondents for their organization. The SHO perspective is vital as departmental leaders. However, more individual organization studies are needed. Individual department studies will help provide a deeper clarity into how the learning organization and performance are perceived by different staff levels and functional areas. Gaining data from more respondents in different roles in one organization may give a wider perspective of the learning culture and performance. For example, entry-level, mid-level, and senior-level professionals may see the department in

different ways. Future studies may need to gather more information about respondent's backgrounds to see what, if any, impact this has on perceptions of learning culture and performance.

More data is needed to understand differences based on institutional characteristics. This study found differences in learning organization perceptions based on institutional type. Private colleges reported higher learning cultures than public colleges and universities. Future studies may look at learning cultures based on an institution's Carnegie classification, rather than just private or public to help discern how institutional culture and learning culture interact to impact performance. Also, more data about how departments are organized by help clarify or solidify the differences found this study between unified and bifurcated departments.

Financial, knowledge, and educational performance provide a more holistic perspective of performance. However, these three factors may not cover all housing performance. A CFA validated the performance model and indicators, but it may have left out relevant measures performance during data analysis. Future studies should continue to look at relevant and important performance indicators. Instrument items that were left out of analysis (e.g. effectiveness of crisis response) are still practical in the everyday campus housing world. More studies are needed to see what may be validated, or what else may need to be added to strengthen the construct of campus housing performance. More research is needed to look at how housing departments at different types of institutions assess themselves as organizations. Also, additional research is needed to understand how mission performance may related to the campus housing context.

While this study did not find group differences for perceptions of performance, more studies are needed to look at the diverse expectations, policies, and environmental factors that

may affect how performance is defined. The learning organization accounts for a small proportion of the variance in organizational performance, future studies may look at additional variables to account for more of the variance, looking at variables such as the effects of the presence of on-campus populations, residency requirements, or number of beds with performance outcomes, or similar metrics.

This study also relied on perceptual performance measures. Perceptual self-report measures can limit and bias how performance is performance is reported (Podsakoff & Organ, 1986). Ellinger, Ellinger, Yang and Howton (2002) integrated objective financial measures into their DLOQ study as did McHargue (1999, 2003) and Wetherington and Daniels (2013). These studies may provide a template for how objective financial measures can be identified and integrated into examining campus housing.

This study used a rigorous approach to missing data with the complete case method. That approach made the statistical analysis stronger, but it also limited the sample size. In the future, looking at the pattern and trends of missing data may provide findings in themselves. It may show where respondents do not feel like they have information or are able to answer the items. As studies move ahead, looking at the missing data may provide as much insight as the data that is present.

Overall, this study has nothing to compare itself to in the campus housing and higher education literature. This study brought an already deep conversation in the organizational development world into the campus housing administration world. This opens the door for research and studies that go beyond just senior leaders in the United States.

Summary

This study assessed campus housing departments as learning organizations and looked at its relationship to organization performance. This study brought Watkins and Marsick's (1993, 1996) learning organization model and assessment tool (the DLOQ) into a new context of campus housing. It validated financial and knowledge performance as key indicators and introduced a new performance dimension of educational performance for housing departments. Analysis showed that campus housing departments see themselves as learning organizations. Their perceptions were more congruent with non-profit organizations than other higher education DLOQ studies. Finally, this study concluded *that embedded systems which capture and share learning* and strong *leadership to support learning* contribute most to financial, knowledge, and educational performance. The findings of this study match other DLOQ research while also expanding DLOQ research into new realms.

The findings of this study begin a new era in the journey of organizational development in campus housing departments. Departments can no longer operate in the same way and expect to be successful in the current higher education environment. Departments and their leadership need to think seriously on how they can become learning organizations. The findings of this study and previous DLOQ studies show the benefits of being a learning organization. As housing professionals are introduced to this model, they can provide an evidence-based organizational strategy than has positive correlation with organizational performance. Housing leaders need to embrace all levels of learning. They need to continue to invest in ways to systematize and share the learning that happens in the everyday work of their department. Leaders need to continue to push individuals and groups to be in dialogue, work together, and recognize the interconnectedness of their work. As individual and departments begin to act to

implement the seven dimensions of a learning organization, they will become more adaptable and be ready to continue to shape the future of campus housing.

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APPENDIX A

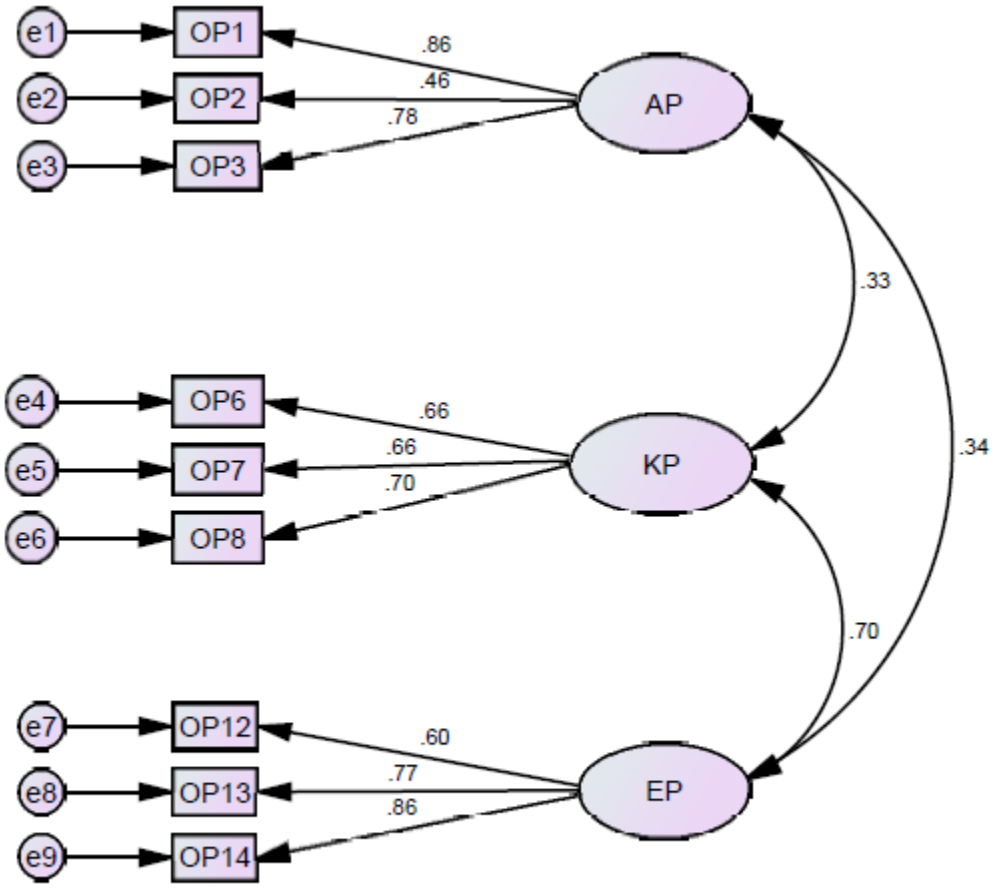

Figure 13. Final CFA Model Estimates