ASSESSING STUDENT SERVICES AS A LEARNING ORGANIZATION TO PROMOTE STUDENT SUCCESS AT CALIFORNIA COMMUNITY COLLEGES

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Gloria Gaeta Perez

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ASSESSING STUDENT SERVICES AS A LEARNING ORGANIZATION TO
PROMOTE STUDENT SUCCESS AT CALIFORNIA COMMUNITY COLLEGES

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Date

Graduate and Professional Studies in Education
Abstract

of

ASSESSING STUDENT SERVICES AS A LEARNING ORGANIZATION TO PROMOTE STUDENT SUCCESS AT CALIFORNIA COMMUNITY COLLEGES

by

Gloria Gaeta Perez

Brief Literature Review

Professionals in student services play a significant role in the community college setting. Student services professionals hold a major responsibility for developing ways of providing support services to students that will help them succeed in college. However, despite their efforts, approximately 76% of community college students do not complete college or transfer to a university within six years (California State Legislature, 2010). Due to the low student achievement rates, a state initiative, the Seymour-Campbell Student Success Act was approved in 2012 as an attempt to increase student achievement throughout California community colleges. Subsequently, community colleges are charged with delivering mandated student support services that involve organizational change—the implementation and use of technology by both student services professionals and students. Technology is an important component of the Student Success Act. However, effective organizational change in implementing and using technology depends on organizational practices that help facilitate change. Astin’s (1984/1999) student involvement theory and Watkins and Marsick’s (1993) learning
organization model supplement each other to elucidate the important role that student services professionals have in supporting student success and promoting necessary organizational change through current practices in the organization.

Statement of the Problem

The purpose of the study was to identify the dimensions of a learning organization model that helps facilitate change in student services at California community colleges.

Methodology

This study was conducted in Student Services within the CCCS. A total of 796 student services professionals, identified as subscribers of one of three public Student Services listservs maintained by the California community colleges, were invited to participate in an online survey questionnaire composed of 62 items. The survey instrument used for this study was developed by Marsick and Watkins (2003), *The Dimensions of a Learning Organization Questionnaire*. Data collected included general demographic characteristics of the participants as student services professional and of their organization and practices within the organization that help facilitate change.

Conclusions and Recommendations

Organizational change is necessary for student services organizations to meet state initiatives and increase student success in California community colleges. Organizational culture and practices help facilitate change, therefore it is important to assess organizations to identify and address areas that need improvement. Systems to capture learning used to manage and facilitate professional development is a dimension in
California community colleges that lacks significantly and needs improvement. Ongoing assessments of organizational culture and practices are key for future changes in California community colleges.

__________________________, Committee Chair
José Chávez, Ed.D.

__________________________
Date
DEDICATION

“Parece fácil, Se ve muy fácil, Pero es difícil en realidad”

–El Tri

Con mucho amor y honor, le dedico esta tesis a mi familia, especialmente a mis padres, José y Luz. Me han brindado su apoyo, y me han dado la fortaleza para realizar una meta que parecía imposible. Les dedico esta tesis también a mis abuelitos, Salvador y Victoria, Agustín y Efrén, por las enseñanzas y los valores que a través de mis padres, he aprendido y han contribuido a la persona que soy realmente. No tengo palabras suficientes para expresar mi eterna gratitud por todo su apoyo, generosidad y amor. Gracias a todos de nuevo por todo lo que me han brindado.

This thesis is dedicated to my family, especially to my parents, José and Luz, as an acknowledgement and appreciation for their sacrifice of immigrating to the United States with my three eldest siblings, Orlando, Leticia, and Felipe, to later raise three more children, Mario, Blanca, and me, and now helping raise my nephew, Felipe Jr., and my niece, Evelynda. My parents’ sacrifices and hard work have contributed to my determination in continuing an education and reaching my goals. They have engraved invaluable principles, values, and ethics that have influenced my being. I thank all my brothers and sisters for their support, thoughtfulness, generosity—cards, care packages, pictures, videos, and special moments shared from a distance.

This thesis is also dedicated to Hugo, my better half, for his love, patience, encouragement, and support during the most stressful moments of completing this thesis.
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Chapter 1

INTRODUCTION

Background

Professionals in student services play a significant role in the community college setting. Student services professionals have a major responsibility for developing ways of providing support services to students that will help them succeed in college (Schuh, Jones, Harper, & Associates, 2011). However, despite their efforts, only 24% of community college students successfully reach their education goal of a certificate, associate degree, or transfer to a college or university within six years (California State Legislature, 2010). Low student achievement rates led to a state initiative, the Seymour-Campbell Student Success Act, which was approved in 2012 as an attempt to increase student achievement throughout the California community colleges. Subsequently, community colleges are charged with delivering mandated student support services that involve organizational change—the implementation and use of technology by both student services professionals and students.

Organizational change is an imperative requisite to meet mandates of the Student Success Act, and community colleges must implement technology as a tool to assist student services professionals in delivering core services in an effort to promote student success. However, effective organizational change in implementing and using
technology depends on organizational practices that help facilitate change (Edmondson, Bohmer, & Pisano, 2001; Karp & Fletcher, 2014).

Astin’s (1984/1999) student involvement theory and Watkins and Marsick’s (1993) learning organization model supplement each other to elucidate the important role that student services professionals have in supporting student success and promoting necessary organizational change through current practices in the organization. Throughout this study, student involvement and student engagement are used interchangeably to describe the participation of college students. Both terms are also used as equivalent factors that influence student success.

Statement of the Problem

The primary purpose of this study was to determine what practices in student services within the California Community College System (CCCS) help facilitate the organizational change needed for implementing and adopting technology to deliver mandated student services and promote student success.

Research Question

This study addressed the following research question: What dimensions of a learning organization model are present in California community colleges’ student services organizations that help facilitate organizational change in implementing and adopting technology to promote student success?
Significance of the Study

In an effort to successfully implement the 2012 Student Success Act initiatives, California community colleges are undergoing organizational changes that require the delivery of mandated services to all students. Student services personnel are critical in facilitating the change in delivering mandated student services. Included in these organizational changes is the implementation and use of technology by personnel, which is also required to ensure access and delivery of services to students. Researchers have found that organizations with learning organization practices are more likely to adapt to changes in an organization (Karp & Fletcher, 2014; Watkins & Marsick, 1993). Assessing the status of student services as learning organizations helps evaluate organizational practices that help facilitate processes of change (Marsick, 2013) and identify areas that need improvement to facilitate change. Therefore, the Dimensions of Learning Organization Questionnaire (DLOQ), developed by Marsick and Watkins, will be used to “measure the status of organizational learning practices and cultures” (Marsick, 2013, p. 129) within student services in California community colleges.

Theoretical Framework

This section provides the reader with a theoretical framework for student services professionals and implementing change in student services. The theoretical framework for this study consists of Astin’s (1984/1999) theory of student involvement and Watkins and Marsick’s (1993) learning organization model. Astin’s theory of student
involvement provides a basis for professionals in student services to design programs and services that meet the needs of students. Watkins and Marsick’s learning organization model illustrates an integrative perspective of facilitating systemic change in an organization. Such theoretical framework is essential in understanding how student services professionals can help facilitate change to promote student success in community colleges.

**Student Involvement Theory by Alexander Astin**

Astin’s (1984/1999) seminal work has significantly contributed to the higher education landscape. Through his extensive research, Astin developed a theoretical perspective of student involvement that focuses on the student’s behavior and actions rather than feelings or thoughts of the student experience. Moreover, it suggests that student involvement is a behavioral process for facilitating student learning and growth.

Astin (1984/1999) identified student involvement as “the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). Moreover, Astin’s theory (1984/1999) proposes five postulates:

1. Involvement refers to the investment of physical and psychological energy in various objects.
2. Regardless of its object, involvement occurs along a continuum.
3. Involvement has both quantitative and qualitative features.
4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. (p. 519)

Astin (as cited in Evans, Forney, Guido, Patton, & Renn, 2010) contends that the extent of student learning and student growth depends on the time and effort of involvement in educational activities, in-class or out-of-class, intended to promote outcomes of learning and student development. Moreover, student involvement, as described by Astin (as cited in Evans et al., 2010), can be defined as any activity, related to the educational setting that engages the student, which may impact student learning and development and achievement. Astin’s theory helps link student development to institutional practices. In fact, this theory helps professionals in higher education to design and facilitate more effective opportunities that, if developed strategically, will encourage student involvement and optimize student development (Astin, 1984/1999; Hawkins & Larabee, 2009). In essence, student services professionals play a significant role in creating opportunities for delivering support services that not only engage students but also help them excel in their education (Schuh et al., 2011). The concept of student involvement theory, in conjunction with recent studies related to student success, is key for the work of student services professionals.
A Learning Organization Model

Drawn from earlier learning organization research—including Senge’s (1990) systems thinking approach; Pedler, Burgoyne, and Boydell’s (1991) learning perspective; and Garvin’s (1993) strategic perspective—Watkins and Marsick (1993) constructed a learning organization model of action imperatives for continuous learning in an organization and organizational change. Senge’s (1990) conceptual work of systems thinking illustrates the interdependency between the parts of an organization to comprehend the whole organization. In lieu of his systems thinking illustration, Senge developed five disciplines to describe how a learning organization’s capacity to adapt and possess generativity—the ability to merge existing knowledge with new ideas—are influenced by individuals in the organizations through (a) personal mastery, (b) mental models, (c) shared vision, (d) team learning, and (e) systems thinking. Pedler et al. (1991) proposed their learning perspective in an organization as key to be able to continuously transform itself. The transformation of an organization is essential to remain competitive, and individuals in an organization are resources for promoting organizational transformation.

Furthermore, Garvin (1993) contended that organizations need to commit to learning to be able to continuously improve and be successful in a rapid changing environment. Garvin (1993) proposed that to learn in an organization requires a strategic plan composed of five activities: (a) systematic problem solving, (b) experimentation
with new approaches, (c) learning from past experiences, (d) learning from others, and (e) transferring knowledge.

Watkins and Marsick’s (1993) model, the dimensions of the learning organization, illustrates a learning organization as a multi-level, extensive, and collective process occurring between the people in the organization and the structure of the organization. Marsick and Watkins’ (1999) model consists of four levels of a learning organization: individual, team or group, organizational, and global. Each level encompasses dimensions or action imperatives that are essential for the learning organization. The individual level includes two dimensions: creating continuous learning opportunities, and promoting inquiry and dialogue for people within the organization. The team or group level consists of one dimension: encouraging collaboration and team learning between members of the organization. The organizational level includes two dimensions: empowering the people of the organization toward a collective vision, and creating a system (or systems) to capture and share learning between members of the organization. Finally, the global level includes providing strategic leadership for learning and connecting the organization to environmental factors. Marsick and Watkins’ (2003) dimensions of the learning organization are explained in Table 1.
Table 1


<table>
<thead>
<tr>
<th>Dimension</th>
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<td>Create continuous learning opportunities</td>
<td>Learning is designed into work so that people can learn on the job; opportunities are provided for ongoing education and growth.</td>
</tr>
<tr>
<td>Promote inquiry and dialogue</td>
<td>People gain productive reasoning skills to express their views and the capacity to listen and inquire into the views of others; the culture is changed to support questioning, feedback, and experimentation.</td>
</tr>
<tr>
<td>Encourage collaboration and team learning</td>
<td>Work is designed to use groups to access different modes of thinking; groups are expected to learn together and work together; collaboration is valued by the culture and rewarded.</td>
</tr>
<tr>
<td>Empower people toward a collective vision</td>
<td>People are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do.</td>
</tr>
<tr>
<td>Create systems to capture and share learning</td>
<td>Both high- and low-technology systems to share learning are created and integrated with work; access is provided, systems are maintained.</td>
</tr>
<tr>
<td>Provide strategic leadership for learning.</td>
<td>Leaders model, champion, and support learning; leadership uses learning strategically for business results.</td>
</tr>
<tr>
<td>Connect the organization to its environment</td>
<td>People are helped to see the effect of their work on the entire enterprise; people scan the environment and use information to adjust work practices; the organization is linked to its communities.</td>
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According to Marsick and Watkins’ (1999) model, the seven dimensions are interrelated and their practice facilitates the formation, continuous learning, and change in learning organizations. According to their model, the purpose of change in an organization is to gain organizational knowledge and increase organizational performance (Marsick & Watkins, 2003). The learning organization model emphasizes
the dimensions, or action imperatives, that are necessary for facilitating change in the organization. Figure 1 illustrates the method of change within the learning organization model.

Figure 1  Learning organization action imperatives

Source: Marsick and Watkins (1999, p. 11)

Definition of Terms

The following nomenclature was used extensively for the purpose of this research study and are defined below:
Assessment

The process by which a college collects information about students to place them into the appropriate course levels of math, English, and English as a second language. The purpose is to facilitate student success by placing students in appropriate courses to fulfill the general education requirements at the college and transfer requirements for 4-year universities (California Community Colleges Chancellor’s Office [CCCO], 2014).

Collaborative Learning

Team learning, team work (Akgun, Lynn, Keskin, & Dogan, 2014), and collective learning (Edmondson et al., 2001) consisting of a learning process in which people interdependently commit, communicate, coordinate, and work together to develop new routines (Edmondson et al., 2001). Collaborative learning is the outcome of cooperative participation of individuals to work and learn together as a group (Marsick, 2013; Watkins & Marsick, 1993). Akgun et al. (2014) defined team learning as a necessary process for developing and implementing new products and services that simultaneously require the inducement of new beliefs, skills, and collaboration of team members for a quick and effective adoption process.

Connect the Organization

“People are helped to see the impact of their work on the entire enterprise, to think systematically; people scan the environment and use the information to
adjust work practices; and the organization is linked to its communities” (Marsick & Watkins, 2003, p. 139).

Continuous Learning

Professional development in which “learning is designed into work so people can learn on the job; opportunities are provided for ongoing education and growth” (Marsick & Watkins, 2003, p. 139).

Core Student Services

The services identified by the Seymour-Campbell Student Success Act (California Community Colleges Student Success Task Force [CCCSSTF], 2012) as mandated services—including assessments, orientation, and student education plans—that are essential to promote student success within California community colleges.

Empower People Toward a Collective Vision

“People are involved in setting, owning, and implementing joint visions; responsibility is distributed close to decision making so people are motivated to learn what they are held accountable for” (Marsick & Watkins, 2003, p. 139).

Experiment New Approaches

Identified in Garvin’s (1993) strategic plan for developing learning organizations, a risk taking approach to search for opportunities to implement new knowledge and test it for effectiveness.
Implementing Technology

The deployment (Karp & Fletcher, 2014), installation, or integration of technology into an organization’s technology infrastructure and making it available for end-users. The effectiveness of implementing and using technology depends on the adoption process of technology.

Inquiry and Dialogue

“People express their views and listen and inquire into the views of others; questioning, feedback, and experimentation are supported” (Marsick, 2013, p. 139).

Learn from Others

Identified, in Garvin’s (1993) strategic plan for developing learning organizations, as an activity to gain a new perspective from practices outside of the organization.

Learn from Past Experiences

Identified, in Garvin’s (1993) strategic plan for developing learning organizations, as an activity to review a systemic analysis and use knowledge of past successes and failures to improve an organization. Also addressed in Marsick and Watkins’ (2003) learning organization model, as a continuous learning opportunity.

LISTSERV

An electronic mailing list software application that allows an individual to send one email to the list of subscribers.
Mental Models

“Deeply ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take action” (Senge, 1990, p. 8).

Personal Mastery

The process and ability for an individual in the organization to continually clarify important objectives and use the current reality to continuously learn and become proficient and competent to meet the objectives (Senge, 1990).

Professional Development

Organized activities and conditions for professionals in an organization that help facilitate change within an organization, including the acceptance and adoption of technology.

Shared Vision

A commitment of several individuals toward a mutual purpose (Senge, 1990).

Shared vision is identified in Marsick and Watkins’ (2003) learning organization dimension of empowering people toward a collective vision, as the involvement of people with responsibilities toward a same purpose and goal.

Student Success

Student achievement, a successful educational completion, or a student outcome of reaching an educational goal by receiving a certificate, degree, or transfer to a
4-year university or a program that will help further the students’ education and lead to a career opportunity.

Systematic Problem Solving

Identified, in Garvin’s (1993) strategic plan for developing learning organizations, as an activity to diagnose problems through scientific approach, using data for making decisions and statistical tools to interpret findings.

Systems Thinking

A discipline that helps integrate all the disciplines in order to understand the process of effective change in a system (Senge, 1990).

Team Learning

The interaction between members of a group that helps transform the individual thinking and energy toward a collective goal (Senge, 1990). Marsick and Watkins (2003) define team learning as the collaboration of people in a group with the intention to learn and work together.

Technology

Also defined as information technology or digital communication devices (Brynjolfsson & Hitt, 2000), technology is a digital tool or device for communicating, disseminating information, and educating stakeholders through software programs and/or an Internet-capable device.
Scope and Limitations

This study focused on cultural assessments of student services organizations. Therefore, it does not reflect the technological infrastructure for implementing technology in organizations. This is one of many perspectives viewed as possible solutions to implement and facilitate change in organizations and should not be construed as the only solution due to several undescribed factors associated with an organization, its culture, and change.

Remainder of the Study

Chapter 1 presented the background, statement of the problem, the main research question, the significance of the study, and a theoretical framework for the study. Chapter 1 also defined key terms used throughout this study. The remainder of the study addresses several components of this study, including the role of student services and the profession, student success initiatives for California community colleges, technology in education, and learning culture for technology-based changes in organizations. Such topics are important in current trends within student services in the CCCS.
Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this study was to identify current practices in student services that promote organizational change for delivering mandated student services. To accomplish this study, literature is examined to address the following research question: What dimensions of a learning organization model are currently present in California community colleges’ student services organizations that help facilitate organizational change for implementing and adopting technology as a tool to promote student success?

This literature review component presents a synthesized examination of literature and studies that support student services practices, identified in a learning organization model, which are essential for organizational changes in the delivery and engagement of student services projected to increase student success. The review of the literature is organized into four sections: (a) an exploration of student services, the profession, and their role in student engagement outcomes; (b) student success initiatives for California community colleges; (c) technology in education; and (d) learning culture for technology-based changes in organizations.
Student Services and the Profession

This first section explores student services and the profession by presenting a review of literature addressing the following components: the foundation of student services; theory-based practices in student services; the role of student services professionals; promoting student success; the college experience—a condition of student success; student engagement—key to student success; and lastly, defining persistence and retention—outcomes of student engagement.

The Foundation of Student Services

Since its development, student services have long been mediators of student success. The official adoption of student services work dates back to the 1930s during the student personnel movement (Martin & McGee, 2014). However, according to a report created in 1937, *The Student Personnel Point of View (SPPV)*—adapted from a conference hosted by the American Council on Education—the philosophy of personnel work including educational responsibilities, functions, and services goes back to the beginning of education (American Council on Education Studies [ACES], 1937). Personnel work was assumed informally by faculty members but was later transferred to appointed personnel officers at colleges and universities (ACES, 1937).

In 1925, providing vocational guidance to college students became imperative and led researchers to investigate what institutions can do to address students as individuals and help them reach their vocational goal (ACES, 1937). ACES (1937) conducted a survey to identify and understand how personnel in higher education institutions were
assisting students’ development. In response to the report of the survey, the American Council on Education convoked a meeting to discuss the use and development of tools, techniques and processes, and a clarification of student personnel work in higher education (ACES, 1937). According to the SPPV report (ACES, 1937), student personnel work was identified to include the delivery of student personnel services specifically aimed to help students develop as whole individuals (Evans et al., 2010). In addition to intellectual growth from in-class learning, the SSPV explained the student as a whole individual to be characterized by “his intellectual capacity and achievement, his emotional make-up, his physical condition, his social relationships, his vocational aptitudes and skills, his moral and religious values, his economic resources, and his aesthetic appreciation” (American Council on Education Studies as cited in Martin & McGee, 2014, p. 50). Subsequently, student personnel offices were developed to provide students with services that could assist them holistically (Martin & McGee, 2014), including academic, career, psychological counseling, health, and extracurricular activities.

Since then, student personnel services have evolved and are most commonly identified interchangeably as student development services by the Council of Student Personnel Association in 1972, as cited by the authors of Student Services: A Handbook for the Profession (Schuh et al., 2011); student support services, as identified in The Role of Student Services on the Improving of Student Experience in Higher Education by Ciobanu (2013); student personnel services (ACES, 1937); student affairs and student
services (Schuh et al., 2011). The foundation of student services in higher education today strives to meet student needs by delivering services that promote individual growth in students for their educational and personal success (Bloland, 1991; Ciobanu, 2013; Evans et al., 2010; Martin & McGee, 2014; Schuh et al., 2011). Student services include programs, activities, and services commonly referred to as student affairs, in which professionals support the academic mission of the institution by delivering high-quality, services outside of the classroom (Schuh et al., 2011). Student services include a myriad of sectors in a higher education institution, such as admissions, financial aid, housing, and counseling (Schuh et al., 2011)

**The Role of Student Services Professionals**

A major concurrence by researchers proposes that professionals who provide services to students are indispensable in the higher education landscape (Bloland, 1991; Hornak, Akweks, & Jeffs, 2010; Schuh et al., 2011). The role of student services professionals can be defined through various literature pertaining to student development services, student support services, student personnel services, student affairs, and student services (Bloland, 1991; Hornak et al., 2010; Schuh et al., 2011). Schuh et al. (2011) noted that professionals in student services help foster the development of students academically, emotionally, and psychologically. Students’ developmental changes are outcomes of theory-based practices utilized for creating programs and opportunities for students to learn and help them to successfully reach their educational and personal goals (Astin, 1984/1999; Schuh et al., 2011). Moreover, Astin (1984/1999) proposed that in
order to reach student achievement outcomes, effective practices and programs must require student involvement. As a catalyst for providing effective student services, professionals are integral in developing strategies to promote student success.

**Theory-Based Practice: Student Development and Involvement**

Student development has historically been a goal for professionals in education. Theories related to education have evolved through studies and research influenced by social and economic factors (Evans et al., 2010). Student development theory is the fundamental guide of principles and values for the profession of student services (Schuh et al., 2011). Moreover, it is key for professionals in student services to understand the developmental changes of students during the college experience, identify student needs, and effectively help students achieve their goals.

According to Evans et al. (2010), authors of *Student Development in College: Theory, Research, and Practice*, the concept of student development theory was triggered in the late 1960s and 1970s when social, economic, and political forces such as the end of Vietnam War, the Civil Rights Movement, and the Women’s Movement led to a significant increase of student enrollment populations. Subsequently, student populations, which were then comprised of mostly traditional white male and elite students, began to diversify to a student population that included women, veterans, and students of color. To better understand and accommodate the needs of the evolving student population, administrators in student services sought information regarding human development processes from psychologists (Evans et al., 2010). Beginning with
Lewin’s (1936) influential contribution and explanation about the effect of environments on human interactions, other researchers, such as Sanford (1967), took a leading role in research to address the relationship between colleges and students (Evans et al., 2010). Since then, a manifold of theoretical perspectives has been developed to explain the impact of college on students and student experiences in higher education that lead to development, growth, and change. Many researchers agreed that no one single theory can explain the simultaneous developmental changes that a college student experiences (Bloland, Stamatakos, & Rogers, 1994; Evans et al., 2010). However, various theories that explain student development are constantly evolving and are fundamental for student services work related to student success (Schuh et al., 2011).

As a significant contributor in the higher education setting, Astin’s theory of student involvement (as cited in Schuh et al., 2011) suggests that behaviors and actions of students determine student involvement and engagement and serves as a guide to promote student success. Student learning and personal development proportionally depends on the quality and quantity of student involvement and engagement. It provides professionals with a basis for designing effective programs and services that engage students and helps create a positive college experience by identifying the amount of physical and psychological energy spent by the student (Astin, 1984/1999; Hawkins & Larabee, 2009). Professionals create and facilitate opportunities that involve or engage students and deliver quality services that allow students to attain their educational goals (Schuh et al., 2011).
Promoting Student Success

Student success is an outcome desired by all institutions in today’s higher education landscape. Kuh (2011) suggests that student success is derived from past terminology that has been similarly used to epitomize the notion of succeeding. As the key objective in student services, student success depends on the devoted energy and time by professionals in student services to develop programs and practices that contribute to student success (Kuh, 2011). However, the responsibility of student services to help foster student success is no different from past responsibilities. According to Kuh, Kinzie, Schuh, Whitt, and Associates (2010) and the Documenting Effective Educational Practice (DEEP) project led by the National Survey of Student Engagement (NSSE) and the American Association for Higher Education (AAHE) in 2002, a qualitative study was conducted on 20 colleges and universities to help identify determinant factors and conditions within strong-performing institutions that help cultivate student success.

Reported in a DEEP publication by Kuh et al. (2010), a finding from the study suggests that professionals who create out-of-class student experiences have an impact on the effectiveness of institutions’ student success outcomes. The outcomes of student success depend on the accumulation of experiences in which college students engage. Most of these out-of-class experiences are influenced through programs developed by professionals in student services to intentionally engage students. As for student services professionals, promoting student success outcomes is congruent to meeting the mission of helping students reach their educational and personal goals (Kuh, 2011).
The College Experience: A Condition of Student Success

Student success depends on the student’s experience in college. Several researchers, including Astin’s (1984/1999) *Student Involvement Theory*, agreed that the student experience consists of multiple culminating encounters between the college and the student through purposeful in-class and outside-the-classroom educational activities. Moreover, the student’s experience in college and what he or she does in college is contingent on the amount of physical and psychological energy invested by the student in an intentionally developed educational activity (Astin, 1984/1999; Brown & Lee, 2007; Kuh et al., 2010; Pascarella & Terenzini, 1991).

Brown and Lee (2007) explained that the out-of-class student experiences are significant to student development, learning, and success and are as equally important as the in-class student experience. More specifically defined, out-of-class experiences in student services work:

- include but are not limited to career development, leadership programs, service-learning and volunteer experiences, residence life, counseling services, health services, judicial affairs, student organizations and activities, student unions, multicultural and international student programs, orientation and first-year experience programs, learning support programs, [veteran’s services,] and disability services. (Brown & Lee, 2007, p. 304)
The effectiveness of the student’s experience in college varies and depends on the degree in which the student is engaged and whether the student builds meaningful connections (Brown & Lee, 2007; Kuh, 2011).

**Student Engagement: Key to Student Success**

Creating successful programs and opportunities for students to learn requires student engagement. In Astin’s (1993) seminal contribution to research and literature related to influential factors for student learning in higher education, students who spent time learning and engaging with peers had a positive effect on associated factors of student success, including student satisfaction of their college experience and attaining their educational goal. In Astin’s (1984/1999) student involvement theory, student engagement was originally presented as student involvement and defined as the “amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). In his theory, Astin further explained that a student who is very involved and devotes time and energy to their academia—whether studying, spending time on campus, or building relationships with other peers and stakeholders of the campus community—is most likely to succeed. On the other hand, Astin and other researchers contend that an uninvolved student will experience adverse effects, such as not completing college or not performing to their greatest potential, which result from not engaging or spending time and energy on their academic experience (Astin, 1984/1999; Kuh et al., 2010). Therefore, understanding the implications of an involved student and
an uninvolved student is imperative for creating effective programs aimed at student learning and development.

Student engagement is an aspect of student participation, which is enhanced by well-developed purposeful educational curricula. Kuh et al. (2010) concluded that student engagement depends on two predicting factors of student success: (a) “the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success” (p. 31) and (b) the allocation and organization of institutional resources, programs, and services intended to develop learning opportunities and activities in which students participate. Such predicting factors are similarly represented in Astin’s (1984/1999) theory of student involvement.

**Defining Persistence and Retention: Outcomes of Student Engagement**

Persistence and retention are important measureable outcomes in higher education, yet they are terms liberally used interchangeably. However, in a statistical analysis report, *On Track to Complete? A Taxonomy of Beginning Community College Students and Their Outcomes 3 Years After Enrolling: 2003-04 Through 2006*, Horn (2009), on behalf of the National Center for Education Statistics, defined persistence as a student measure and retention an institutional measure. Horn further explained that persistence outcomes refer to the “percentage of students who complete a program or maintain their enrollment at any [or multiple] postsecondary institution[s]” (p. 21). In contrast, institutional retention outcomes measure the progress of students “who complete
a program or maintain enrollment at their first [or one] institution” (Horn, 2009, p. 21).

In other words, a student who begins at one institution and then transfers to another institution indicates that the student was not retained by the first institution, which causes retention rates to drop. However, the continuance of attending a different institution (and not the first institution) indicates that the student has persistence to continue their education.

Student persistence is essential for student success. However, research to improve student persistence in community colleges lacks significantly (Bailey & Alfonso, 2005) and has long been adversely identified through past studies related to 4-year institution college dropouts (Tinto, 1975). College dropouts are students who have one or more barriers preventing the student from reaching an educational goal. However, in their report to help improve student persistence, McDonnel, Soricone, and Sheen (2014) discussed two important factors that lead to student success outcomes: (a) understanding underlying barriers that lead to low student completion rates in adult learning institutions, including community colleges; and (b) address the need of comprehensive support services to improve student persistence and completion. Some common underlying barriers among students with low completion rates, as explained by the authors, include working in low-paying jobs with irregular work hours, unreliable transportation, unsteady child care, and lack of access to health services or insurance coverage (McDonnell et al., 2014). Understanding student needs is intended to help professionals in student services identify and provide necessary services to students.
While some services may not be offered on campus, connecting students to community services may be an option to optimize student success for students with academic-hindering barriers.

Additionally, according to Habley, Bloom, and Robbins (2012), research suggests a strong positive correlation to five variables for student persistence: (a) a positive college experience, (b) effective decisions for educational and career goals, (c) effective use of student support services on campus, (d) out-of-class student-faculty interaction, and (e) peer mentoring. A student college experience depends on services and information offered by professionals in student support services and academic faculty, and both share the responsibility for helping students succeed (McDonnell et al., 2014). Astin (1993) revealed that faculty members have a strong impact on students. Therefore, all professionals in student services and faculty must work collaboratively toward a common goal (McDonnell et al., 2014). Reaching out to students and providing information about student support services such as academic and career advising and mentoring enables students to effectively utilize services and commit to their educational goal (Habley et al., 2012). Thus, students who utilize support services engage in purposeful educational activities that enhance the college experience and motivate students to persist toward their goals (Astin, 1993; Habley et al., 2012; Kuh, 2009; McDonnell et al., 2014).
Student Success Initiatives for California Community Colleges

This second section examines student success initiatives for California community colleges by introducing a review of literature concerning the following components: the role of California community colleges; the Student Success Act; Student Success and Support Program core student support services—orientation, assessment, and student education plans (counseling and advising); student success support through technology-based initiatives—Common Assessment Initiative, Education Planning Initiative, and Online Education Initiative; and finally, technology—a requirement for student success initiatives.

Role of California Community Colleges

California community colleges play a significant role in the country’s educational system. As the largest system of higher education in the United States, the CCCS serves more than 2.1 million students (CCCCO, 2013b), totaling over 70% of undergraduate students enrolled in a public institution (California State Legislature, 2010). However, recent studies found that only 24% of community college students successfully reached their education goal of a certificate, associate degree, or transfer to a college or university within six years (California State Legislature, 2010). The low student success rates have affected community colleges across California and in the effort to address this concern have resulted in the development of state and system-wide initiatives. With the guidance of the California Community Colleges Chancellor Office and various stakeholders,
colleges and districts within the CCCS are working collaboratively to improve student success.

The Student Success Act

In 2012, the California Community Colleges Student Success Task Force (CCCSSTF)—a workgroup comprised of academic, research, and business leaders appointed by the board of governors—researched best practices and effective models for higher education (CCCEO, 2011). In the same year, the CCCSSTF developed a report of 22 recommendations to improve student access and increase student success in California community colleges (CCCEO, 2011), which was approved by California Community Colleges Board of Governors as the Student Success Initiative. Governor Brown signed the initiative as the Seymour-Campbell Student Success Act of 2012, which also implemented the Student Success and Support Program, formerly known as Matriculation (CCCEO, 2012). Subsequently, community colleges throughout California are facing a systematic change requiring the implementation and use of technology for improving the deliveries of, now, three core mandated student support services: orientation, assessment, and student education plans (CCCEO, 2012; CCCSSTF, 2012).

Student Success and Support Program: Core Student Support Services

Orientation. Providing new student orientation to entering community college students is the initial step to their academic achievement and success as students. In fact, past research suggests that orientation programs, of various delivery types, have positive,
short-term and long-term effects on student achievement (Gass, Garvey, & Sugerman, 2003; Harper & Quaye, 2009). According to Gass et al. (2003), orientation programs create positive transitions for students entering higher education. Orientation helps students to relate effectively and navigate a complex environment by informing them of resources, services, and programs on campus that can help them learn necessary skills and gain knowledge for success. The *California Community Colleges Student Success and Support Program Handbook (CCCSSSP Handbook)* recommends that orientation services provide information to new students related to campus procedures, academic expectations, financial assistance, and additional information that may be helpful to new students (CCCCO, 2014).

**Assessment.** Mandatory English and math assessment tests are necessary for new students to complete and be placed in appropriate course levels. Explained in the *CCCSSSP Handbook*, “Assessment is a holistic process through which each college collects information about students to facilitate their success by ensuring their appropriate placement into math, English, and English as a Second Language (ESL) curricula” (CCCCO, 2014, p. 2.3). Assessment instruments measure strengths and weaknesses of the student’s academic skills for math and English courses—mandatory for meeting general education requirements at the college and transfer requirements for 4-year universities.

**Student education plans: Counseling and advising.** Student education plans direct students to success. As an academic roadmap, according to Harper and Quaye
(2009), a student educational plan enables students to complete and meet the course requirements for their educational goal/s. The CCCSSSP Handbook states student education plans may be abbreviated or comprehensive, depending on the student’s needs (CCCCO, 2014).

Abbreviated student education plans consist of course listings for one to two terms in length and are intended to guide students with the goal of completing short-term certificate programs or for students with undeclared educational goals or course of study plans at the time of meeting with a counselor (CCCCO, 2014). Comprehensive student education plans consist of course listings that are required for students with a declared major, an educational goal of transferring to a 4-year university, or for receiving a certificate (CCCCO, 2014). However, the role of the counselor is critical for creating, and modifying-as needed, an effective student educational plan that will meet the needs of each student. In addition to their role of creating education plans, counselors and professionals in student services are vital sources for advising and referring students to programs and services available on and off the campus community that will help them achieve their education and personal goals.

Student Success Support Through Technology-Based Initiatives

The California community colleges need to increase student success rates, and technology is essential in the process of improving students’ success. As proposed by past research, and according to the Student Success Act of 2012, the use of technology in student services is necessary to serve a greater number of students more efficiently and
effectively by “provid[ing] students with a solid foundation and opportunity for success in the California Community Colleges” (CCCCO, 2014, Appendix A). Moreover, in an effort to support the 2012 Student Success Act, the California Community Colleges Chancellor’s Office (CCCCO) has resorted to three major initiatives—Common Assessment, Education Planning, and Online Education—to expand access and improve retention and success of students. In 2013, the California Community Colleges Board of Governors approved more than $31 million (CCCCO, 2013a) toward online tools for streamlining assessments, developing education plans, and expanding online course offerings to students.

**Common Assessment Initiative**

**Background.** In 2010, the CCCS began to conceptualize a statewide effort of centralizing an online common assessment. Serving more than 2.1 million students in 112 colleges across the state of California, the colleges within the system are tasked to assess students for placements into mathematics, English, and English as a second language courses. Assessment practices for testing and placement, determined locally at the college and district level, cause the practice of assessments to differ across the system. Additionally, according to the California Community College Technology Center (CCCTC) Project Manager, Sandoval Chagoya, these inconsistencies result in students confronting different tests, cutting scores, and the need to retest due to the lack of test scores portability (Chagoya, 2010). The use of various assessment tools at
different colleges also creates inconsistencies in effectively preparing students and accurately placing them in the correct courses.

**Purpose.** Due to the use of multiple assessment tools across the CCCS, and to support the 2012 Student Success Act, the Common Assessment Initiative (CAI) proposes to develop a centralized Common Assessment System (CAS). The objectives of developing a centralized system or CAS include the following:

- Develop common assessment test[s] for English, Mathematics, and English as a Second Language for all California Community Colleges [to administer].
- Reduce the need for students to retake assessments by increasing the portability of assessment results.
- Increase the effectiveness and accuracy of test placement for students placing at or below college level.
- Lower remediation rates for California Community College students and increase the initial placement level for students.
- Increase awareness of the importance of placement tests and improve student preparation.
- Assist colleges with efforts to improve local assessment and placement practices.
- Reduce the cost of assessment related activities at the district/college level.
- Leverage Multiple Measures data and research to lower the number of assessment tests issues and to improve placement. (California Community Colleges Common Assessment Initiative, n.d., p. 1)
Moreover, the integration of technology solutions for the CAS is imperative in providing students with test preparation resources and can be used to deliver and administer the common assessment, including placement guidance. Technology for CAS can also be used for data collection, research (Lorenzo, 2014), and reporting.

**Education Planning Initiative**

The Education Planning Initiative (EPI) proposes to establish a statewide student services portal system that will guide students and inform them of necessary information and courses to enroll in to successfully complete their goal at the community college. According to the EPI project, the student services portal system will include the customization and sequence of matriculation information and activities for each student to successfully complete his or her goals in community college. Additionally, the portal system will allow students to access education planning and degree audit services through their student account portal.

Driven by a governance structure of stakeholders from across the CCCS, the objectives of the EPI include:

- Help students make informed choices;
- Clarify goals and plan for success;
- Assist under-resourced counseling services;
- Succeed despite funding challenges;
- Coordination within and between colleges;
- Alignment with legislation;
Online Education Initiative

The Online Education Initiative (OEI) proposes the development of an online education framework for California community colleges. Elements of the framework “include a common course management system, support for transfer degrees online, support for basic skills instruction and facilitating credit by exam” (Lorenzo, 2014, para. 19). OEI will also provide on campus and online students with online tutoring through Link-Systems International, an educational technology company that offers products and services for students that help increase learning outcomes and retention rates in education institutions. According to Kuh et al. (2010) and other researchers, student learning outcomes and retention rates have been linked to student success. The expansion of online education will assist students as an alternative option to attending community college.

The objectives, or Funding Priority Needs, as identified in the OEI grant proposal include the following:

• Increase the number of college associate degree graduates and transfers to four-year colleges.

• Improve retention and success of students enrolled in Online Course Exchange courses.
• Increase California Community Colleges education for the underserved and underrepresented including individuals with disabilities and those with basic skills needs.
• Increase ease of use and convenience of the online experience.
• Decrease the cost of student education.
• Significantly increase demand for online course delivery. (Foothill-De Anza College District & Butte Glenn Community College District, 2013, pp. 13-19)

Technology: A Requirement for Student Success Initiatives

State and system initiatives depend on technology to improve student outcomes. A successful implementation of the Student Success mandated services requires several components, including the implementation and adoption of technology and professional development. Although technology does not replace human contact and may not be the first choice for all students, technology has been identified in past research as an essential tool for enhancing the educational environment, the student experience, and student learning (Elling & Brown, 2001; Engstrom & Kruger, 1997; Schuh et al., 2011).

Technology in Education

This third section examines technology in education through a review of literature regarding the following segments: using technology to deliver student services, the ECAR study—undergraduate student perceptions of information technology, and the DEEP Project—using technology for student success.
Using Technology to Deliver Student Services

Technology is a critical tool in the educational setting. However, for community colleges, the need of implementing new technology in student services has increased from recent state and system initiatives. Beginning with the passage of the Student Success Act of 2012, and supported by supplemental initiatives—the Education Planning Initiative, the Common Assessment Initiative, and the Online Education Initiative—California community colleges are required to implement and use technology for multiple purposes, most importantly for delivering student services (CCCCO, 2014).

According to Elling and Brown (2001), the use of technology in student services is not a new concept. However, technology continues to evolve and the use of various technological tools is rapidly changing in society and how it is used in education. In fact, the capabilities that technology offers have changed the way professionals deliver student support services (Elling & Brown, 2001; Engstrom & Kruger, 1997; Schuh et al., 2011). According to Engstrom and Kruger (1997), using technology for delivering student services positively influences two important goals in student services: student learning and development. Moreover, using technology for delivering services enables students to have greater access and opportunities to reach their success. Kuh et al. (2010) and other researchers assert that the use of technology is increasing and utilizing it to actively engage students helps facilitate student learning and enrich the student college experience (Elling & Brown, 2001; Engstrom & Kruger, 1997).
From their examination of online student services at community colleges and their exploration of opportunities and challenges of new technology, Hornak et al. (2010) agree that in order for community colleges to remain competitive it is imperative that they offer student services online. Moreover, accessibility and use of technology by students is more prevalent today compared to the past, and providing students with accessibility to information online for educational purposes is essential for students who are on and off campus (Engstrom & Kruger, 1997). In fact, the studies examined in the next section help identify technological trends in higher education that help students reach their goals.

**ECAR Study: Undergraduate Student Perceptions of Information Technology**

**Purpose.** In a report authored by Dahlstrom, Walker, and Dziuban (2013), a study was conducted by the Educause Center for Analysis and Research (ECAR) in 2013 to gain a better understanding of student perceptions on technology in higher education.

**Method.** ECAR invited 1,600,043 undergraduate students to complete an online survey. Out of all the invitees, a total of 113,035 undergraduate students responded, a representation of 14 countries.

**Findings.** According to their findings, as presented in Figure 2, approximately 75% of undergraduate students believed that technology helps them achieve their academic outcomes and better prepares them for future educational plans, and approximately 60% of undergraduate students believed technology helps prepare them for a workplace (Dahlstrom et al., 2013).
Moreover, the uses of technology by undergraduate students vary. According to the study (and depicted in Figure 3), from a list of technology resources the three top uses of technology are for basic resources including institution website, followed by learning management systems, and the institution library website (Dahlstrom et al., 2013).

Moreover, according to Dahlstrom et al. (2013), student use of “the institution’s website and computer management systems have the greatest impact on student success” (p. 11). The researchers also suggested that the findings in Figure 3 indicate the importance of technology resources based on the usage by students.
Overall. Technology is an essential tool in providing students with information necessary for their success. Findings in this study help support how the use of technology by college students is imperative for their academic achievement. As confirmed by other researchers (Elling & Brown, 2001; Engstrom & Kruger, 1997), this study demonstrates that in order to meet the needs of college students it is essential for
colleges and universities to implement technological innovations (Dahlstrom et al., 2013).

**The DEEP Project: Using Technology for Student Success**

**Purpose.** The Documenting Effective Educational Practice (DEEP) project led by NSSE and AAHE, reported by Kuh et al. (2010), examined effective practices by colleges and universities that help foster student success. Through their extensive research, Kuh et al. reported how effective practices through technologies were identified as resourceful tools used to leverage student outcomes.

**Method.** The NSSE Research team selected 20 higher education institutions that were identified by the NSSE standards as high-performing colleges and universities (also known as DEEP schools) that utilize effective practices for reaching higher than predicted graduation rates. Case studies were conducted on the selected DEEP schools to examine what they do to promote student success.

**Findings.** Kuh et al. (2010) reported an in-depth interpretation of the information gathered in the research study. However, in the findings related to how technology is used to promote student success, Kuh et al. reported that DEEP schools continuously search for innovative ways of using technology for purposeful educational activities. According to their findings, DEEP schools use technology for promoting student engagement with staff and peers in and out of classrooms. DEEP schools integrated the use of technology for online activities, resources, digital and multimedia, programs for
students to monitor academic progress online, course management software, and a variety of student success related activities (Kuh et al., 2010).

In addition, technology enhances the student experience and learning environment. In the study, technology was identified as useful for facilitating meaningful student-faculty interaction—a requisite for a high-quality student learning experience (Kuh et al., 2010). Moreover, students at DEEP schools consider accessibility and responsiveness of faculty to be important in their learning environments (Kuh et al., 2010), which is a benefit of using technology and technological software programs.

**Overall.** The findings related to technology demonstrate that if technology is implemented and used effectively, it can be a supplemental tool in improving educational environments by engaging students; facilitating student-faculty and peer communication; and, most importantly, to enrich student learning for the outcome of student success (Kuh et al., 2010). Although these findings reflect faculty-student examples, they can be pedagogically applied to the work of student services. Compared to the traditional delivery of student services, using technology to provide essential services to students can help the interaction between student services professionals and students, including students who may not otherwise seek services. Additionally, Kuh et al. (2010), like other researchers, concluded that technology makes it possible for students to seek and promptly retrieve the necessary information to reach their education goals (Elling & Brown, 2001; Engstrom & Kruger, 1997).
Taken collectively, technology is an essential and resourceful tool for helping college students succeed. Using technologies in an educational setting helps structure the student experience (Karp & Fletcher, 2014). Technological use is a leading factor of a successful completion of college (Schuh et al., 2011).

Facilitating Organizational Change

This last section presents a review of literature and research that addresses components of organizations and culture that support change in organizations. The following subsections include Reasoning Change in Higher Education, Understanding Organizational Change, and Significance of Assessing an Organization.

Reasoning Change in Higher Education

There are two critical reasons for organizational change in higher education. The first critical reason for organizational change is the rapid innovation of technology. Change is identified as an external force that causes organizations to progressively change to be successful (Brynjolfsson & Hitt, 2000). The second critical reason is from recent coalesced pressures to increase student success in higher education (CCCSSTF, 2012). Student success in higher education depends on integrating technological tools to deliver support services and educate students on how to achieve their goals (Dahlstrom et al., 2013; Karp & Fletcher, 2014; Kuh et al., 2010). However, the sole integration of technology requires organizational change. Literature about organizational change helps
articulate the complexities of change and solutions for successful change in organizations.

**Technology integration requirements.** Technology is constantly evolving, offering a multitude of endless benefits, and changing the way it is used in society. Technology is most commonly used to disseminate information (Engstrom & Kruger, 1997) and communicate between stakeholders (Schuh et al., 2011). However, the most beneficial outcomes of using technology in an educational setting require an effective process for implementing and adopting it (Karp & Fletcher, 2014).

When technology is perceived as a beneficial solution for an organization, the decision of implementing technology is often made by leaders within the organization (Engstrom & Kruger, 1997). According to Karp and Fletcher (2014), the implementation process consists of deploying and making new technology available in an organization’s technology infrastructure. Although the benefits of technology are evident, research suggests that implementing technology instigates change when deploying it in organizations (Desai, Lin, & Slomovitz, 2014). However, researchers have investigated possible solutions (explained in the following subsection) to help facilitate technology-based changes within the organization (Desai et al., 2014).

After the implementation of new technology, an adoption process must follow to incorporate the use of technology into the required daily work duties (Karp & Fletcher, 2014). A successful technology-adoption process depends on the willingness of the culture to use technology (Rosenberg, 2001). Organizational practices that help facilitate
organizational change are necessary for people to be able to effectively use new technology (Karp & Fletcher, 2014). However, Edmondson et al. (2001) argued that organizational characteristics, perceptions, and attitudes of users and managers about new technology affect their willingness to adopt the use of technology. The culture of the organization must be willing to accept new technology to be able to use it effectively.

For California community colleges, implementing technology is a change that requires professionals in student services to adopt and use new technology to deliver core student services. However, for a successful adoption of newly implemented technology, professionals must learn to use the technology effectively. Implementing and adopting technology are equivalently important change processes; and according to research, organizational change is influenced by the people who make up the culture and practices in the organization (Edmondson et al., 2001; Karp & Fletcher, 2014).

**Understanding Organizational Change**

Beginning with his earlier work about organizations, Argyris (1964) defined the properties of formal organizations as comprised of interrelated parts; and through social human and nonhuman interaction, three core activities must emerge:

1. The achievement of objectives (including goal setting and problem-solving)
2. Maintenance of the internal system to accomplish the objectives
3. Continuous adaptation to the external environment

Argyris’ (1964) earlier compilation of literature about organizations influenced his later work and research about change in organizations. Researchers agreed that organizational
change is a continuous form of improving an organization (Kezar, 2001) and requires the
social and nonsocial collaboration of people and resources, in and outside of the

While researchers have examined how to improve the effectiveness of an
organization by learning and adapting to change, research focused on the specific context
of higher education is recently increasing (Akhtar, Arif, Rubi, & Naveed, 2011; Holyoke,
Sturko, Wood, & Wu, 2012). The accretion of research about changes to the higher
education sector are due to greater demands to respond quickly to expectations of
unprecedented changing environments (Holyoke et al., 2012; Kezar, 2001; Nazari &
Pihie, 2012). The changing environments include synchronizing with new technology
and meeting the changing needs of students and society (Holyoke et al., 2012; Kezar,
2001) and an increase in organizational performance (Akhtar et al., 2011).

**Negative effects of change.** However, unexpected, drastic, and unwanted change
can threaten the domain and cause the organization to become resistant to change
(Edmondson et al., 2001; Kezar, 2001). Resistance can be a challenging disruption
within the organization, which keeps it from adopting change (Edmondson et al., 2001;
Nazari & Pihie, 2012). Senge (1990, 2006) argued that learning is necessary for
generating change in an organization, and contended that the inability of an organization
to change is due to the organization having a learning disability. Senge further explained
that learning disabilities are products of seven presumptions: (a) people focus on only
their position and fail to consider that the result of their actions affect other people in the
organization; (b) people would rather blame something or someone for failures in the organization; (c) people fail to take charge to confront challenges in the organization; (d) people think about short-term events rather than proactively preparing for future activities; (e) people are unable to adapt to changing environments; (f) leaders must experience trial and errors on the decisions they make to be able to learn; and (g) rather than permitting collective inquiry for a challenging situation, management perceive a collective inquiry as a threat, which keeps managers from learning other perspectives (Senge, 1990, 2006).

Additionally, in their review of literature, Edmondson et al. (2001) perceived organizations to be confined from adapting to external innovations because they are “trapped by current competencies or business models, paralyzed by core rigidities, and handicapped by a lack of relevant expertise” (p. 685). They further argued that organizational routines are contributing and reinforcing factors of resistance to organizational change. Change affects people in organizations, and people’s actions affect an organization’s ability to adapt to changing environments.

Many researchers agree that such obstacles related to change may be overcome if it is done in a systematical and sustainable way (Akhtar et al., 2011; Edmondson et al., 2001; Holyoke et al., 2012; Nazari & Pihie, 2012; Senge, 2006; Watkins & Marsick, 1993).
Significance of Assessing an Organization

Research suggests that higher education must be both stable and flexible to respond and adapt to demands of change (Akhtar et al., 2011; Holyoke et al., 2012; Kezar, 2001; Nazari & Pihie, 2012) such as reforms for improving student outcomes, which involves the implementation of technology (Karp & Fletcher, 2014). Karp and Fletcher (2014) maintained that implementing change can be costly, especially when it involves technology. Therefore, in order to create a more effective process, evaluating the readiness of the culture to adopt change in the college is imperative (Karp & Fletcher, 2014). Moreover, an assessment tool solicits perspectives of people in the organization affected by change. Akhtar et al. (2011) agreed that it is vital to gather feedback about characteristics needed to facilitate change, especially from people who are responsible for embarking on a reform to improve the organization.

Assessing an organization helps identify the climate of the organization and its culture. Because organizations and cultures continuously change, it is critical to reassess the organization’s vision, values, and practices (Watkins & Marsick, 1993). Also, distinguishing the organization’s cultural characteristics is important to determine the likelihood that the organization will adopt change by identifying issues and addressing them before change takes effect (Karp & Fletcher, 2014; Marsick & Watkins, 2003). Garvin, Edmondson, and Gino (2008) also agreed that results from an assessment can be useful in comparing particular dimensions of an organization.
Hence, a majority of research asserts that to remain competitive and innovative organizations must acquire dimensions of learning organizations to facilitate change and improve performance (Akhtar et al., 2011; Bowen, Ware, Rose, & Powers, 2007; Garvin et al., 2008; Karp & Fletcher, 2014; Khalil, 2013; Marsick & Watkins, 2003; Senge, 1990). Some researchers argue that the discrepancy among many scholars when defining learning organization shows the concept to be vague, elusive, and meaningless (Bowen et al., 2007; Garvin, 1993; Kezar, 2001). However, other researchers assert that the concept of learning organizations is fundamental when measurable outcomes are applicable to the organization’s culture and practices (Bowen et al., 2007; Garvin et al., 2008; Marsick & Watkins, 2003).

**Common assessment characteristics of a learning organization.** With the recent strains for change, researchers have resorted to past studies and models as references for the development of learning organization assessments (Akhtar et al., 2011; Bowen et al., 2007; Garvin, 1993; Nazari & Pihie, 2012; Watkins & Marsick, 1993). Such tools are essential for gathering data about the organization before implementing and facilitating change (Nazari & Pihie, 2012). Among various assessment instruments, most tools share similar characteristics, content, and conclusions found in literature about learning organizations (Bowen et al., 2007; Garvin et al., 2008; Marsick & Watkins, 2003; Senge, 2006), change in organizations (Edmondson et al., 2001; Kezar, 2001; Watkins & Marsick, 1993), and the cultural context of readiness for adopting technology (Karp & Fletcher, 2014). Several reoccurring themes in the assessments are those from
Marsick and Watkin’s (2003) DLOQ. The themes include continuous learning opportunities, inquiry and dialogue, collaboration and team learning, systems to capture and share learning, empowering people toward a collective vision, connection between the organization and its environment, and strategic leadership for learning (Marsick & Watkins, 2003).

Creating continuous learning opportunities. Learning is fundamental element in organizational change. The active force of learning is the people in the organization (Senge, 2006). People, at all levels, must promote continuous learning by proactively taking initiative to learn, reflect on actions, and use creativity to learn (Watkins & Marsick, 1993). They must also be willing to expand their ability to change, adapt, and actively seek solutions for issues related to their work (Bowen et al., 2007; Watkins & Marsick, 1993). People who learn from past experiences and challenges and seize learning opportunities are enabled to enhance their development as professionals and improve their job performance (Senge, 2006; Watkins & Marsick, 1993). Moreover, tolerating and discussing past mistakes and experiences help people learn from each other (Bowen et al., 2007; Marsick & Watkins, 2003).

Pursuing competence by learning to acquire new skills is necessary for people to prepare for the inevitable changes in their work environments. People must be able to view changes as opportunities to learn and work with the forces of change (Bowen et al., 2007; Senge, 2006). Senge (2006) identified this process of continuous learning in the discipline of personal mastery, in which people are committed and become proficient by
continuously learning. Moreover, what people learn individually affects other people in the organization and the organization itself (Senge, 2006; Watkins & Marsick, 1993).

Leaders must be able to motivate their employees to be part of organizational change and continuous learning. Leaders influence the direction of change through iterative processes of designing learning infrastructures to facilitate change (Bowen et al., 2007; Senge, 2006). Leaders must design and construct professional development plans that create ongoing learning opportunities for employees, such as giving people time for training and activities with learning objectives related to the organization’s purpose, vision, and core values and the employee’s performance review (Senge, 2006; Watkins & Marsick, 1993). Because learning is essential in an organization, supporting learning by rewarding people with positive reinforcement helps motivate them to learn (Marsick & Watkins, 2003).

**Promoting inquiry and dialogue.** Inquiry and dialogue positively impact the performance of the organization (Akhtar et al., 2011). Inquiry and dialogue are institutional practices in which people interact with each other in-person or through communication tools. Efficient inquiry and dialogue require people to think collectively, communicate (Akhtar et al., 2011), respect and trust each other, and be open to listening and considering perspectives other than their own (Marsick & Watkins, 2003; Senge, 2006; Watkins & Marsick, 1993). Moreover, leaders must encourage people, at all levels, to provide constructive feedback and request further explanation if needed (Garvin et al., 2008; Marsick & Watkins, 2003).
In his mental models discipline, Senge (2006) explained inquiry and dialogue as critical when complex issues exist. People acquire different perceptions of situations based on experiences and assumptions. In dialogue, being open to understanding each other’s perceptions about an issue is needed to challenge ideas but, most importantly, it is helpful to learn and find the best solution (Garvin et al., 2008; Senge, 2006).

**Encouraging collaboration and team learning.** Collaboration and team learning are critical for efficiency in organizations. Akhtar et al. (2011) contended that organizational learning is a transformational process for adapting to the changing environment. The process depends on the individual and collective contribution of various stakeholders’ learning experiences that, through collaboration, help the organization reach its goals (Akhtar et al., 2011; Bowen et al., 2007). People in teams are viewed as equals and are open to discussions for developing recommendations of organizational change (Garvin et al., 2008; Marsick & Watkins, 2003). Collaboration and team learning are best described as teams and groups in more intimate settings (Marsick & Watkins, 2003). Senge (2006) reminds us of Werner Heisenberg’s view that learning collaboratively has the potential to collectively be more insightful and intelligent than as individuals. People in an organization are interdependent, and team learning is the skill of working together and building trusting relationships that enable people to work more efficiently (Bowen et al., 2007; Garvin et al., 2008; Senge, 2006). Moreover, teams build confidence when people acknowledge team work and achievements (Marsick & Watkins, 2003).
**Systems to capture and share learning.** Systems are structures that can help sustain the interdependence and interrelation of dimensions in organizations. Examples of such systems are continuous learning, inquiry and dialogue, and team learning to work together toward a collective vision. Creating systems to capture and share learning requires communication to retrieve information rapidly (Marsick & Watkins, 2003).

Senge (2006) used the term *learning infrastructures* to describe learning systems. Past learning infrastructures were highly dependent on human resources. However, modern learning infrastructures have transitioned to more innovative solutions such as technology (Senge, 2006). Innovative learning infrastructures are more effective for cross-training employees, redefining job responsibilities, and helping integrate learning into the job. Since the beginning of the 21st century, with the rapid growth of new technology, the adoption and use of Learning Management Systems (LMS) have prevailed in education systems and corporate settings as software application structures for maximizing learning efficiencies (Coates, James, & Baldwin, 2005; Ellis, 2009; Ruiz, Mintzer, & Leipzig, 2006). A LMS helps administer, track, and report training events. Ellis (2009) recommended that a LMS needs to include the following requirements:

- Be able to reconfigure with other internal systems and processes already in place, including portability of importing training content from other sources.
- Be integrated with a Human Resources system.
- Manage registration of users for self-service options, including password secured accounts, profiles, and a personalized up-to-date database of training.
- Coordinate a schedule for learners, instructors, and curriculum, including third-party (training) services.
- Develop and provide access to essential information and learning content for certifications and training opportunities for the job.
- Assess competencies and gaps in the learners’ skills and performance based on expectations of the job performance.

**Empowering people toward a collective vision.** A vision provides the ongoing focus and purpose for learning in the organization. A learning organization must have a collective vision (Senge, 2006). A collective vision requires doing whatever is necessary, within the core values of the organization and taking risks through experimentation, in pursuit of the vision (Bowen et al., 2007; Senge, 2006). Watkins and Marsick (1993) suggested that people set, own, and implement a collective vision, which then influences the people involved to share the responsibility of learning the necessary means toward the vision. Building a collective vision requires people to be able to personally connect to the vision. Leaders should encourage people in the organization to build their own vision of their daily work and understand how it beneficially applies to the organization (Senge, 2006). Such action empowers people to each share the responsibility of working toward a collective vision of the organization (Senge, 2006).

**Connecting the organization to its environment.** An organization is comprised of a culture of people on which the success of the organization depends. It is crucial for people in an organization to be aware of how they are connected to the environment and
how their social commitment affects the environment in which they live and work (Akhtar et al., 2011; Bowen et al., 2007; Senge, 2006). On behalf of the organization’s success, leaders have the obligation to strategically connect the culture to its environment. Moreover, Johnson (2012) proposed that it is a social responsibility for a leader to be aware of and respond to the needs of stakeholders or any group of people affected by the operations of the organization. Watkins and Marsick (1993) advocated that “[connecting] to the internal environment is being responsive to members of the organization and their work-life needs” (p. 18). At the same time, it is also imperative for the organization to respond to customers’ needs and external environmental factors such as competitors, legislations, and other organizations and groups that can potentially affect and influence the organization (Akhtar et al., 2011; Lynch, 2012; Watkins & Marsick, 1993). Consequently, responding to the needs of stakeholders helps create relationships and empathy of stakeholders for decision-making processes that affect the organization. Johnson (2012) claimed that maintaining relationships between the leader and stakeholders benefits the organization by raising the morale and motivation while creating a sense of shared meaning and purpose to achieve sustainable change and solve problems.

Providing strategic leadership for learning. The literature shows strategic leadership to be complex and vague, but fundamental to maximizing the outcomes of an organization in any global sector (Cheng, 2010; Lynch, 2012; Watkins & Marsick, 1993). Researchers agree that strategic leadership requires leaders in management positions to
manage and transform an organization through its values and vision, climate and culture, and structure and systems (Marsick & Watkins, 2003).

Leaders have a strategic responsibility of influencing the direction of the organization (Johnson, 2012; Marsick & Watkins, 2003). Therefore, leaders must keep up to date with knowledge and information about competitors and societal trends via media, newspapers, journals, and other reliable sources (Johnson, 2012). On behalf of strategic leadership, it is important for leaders to inform people in the organization about how current events affect the organization, in order to prepare for change or to create a solution (Marsick & Watkins, 2003). Leaders should act as coaches and mentors for individual needs and desires of people in the organization (Johnson, 2012; Marsick & Watkins, 2003). Leaders must also foster personal development by providing continuous learning opportunities and maintain a supportive climate for growth of individuals (Johnson, 2012).

Additionally, because the use of technology is more prevalent in today’s society, it can be strategically used for learning opportunities. Investing in and using technology is a leadership strategy that enables leaders and others to communicate, share information and learning, connect with people, and acquire training and various learning opportunities (Akhtar et al., 2011; Senge, 2006). However, technology can also be used by people within the organization to request specific learning needs for their jobs and as a method for leaders to support learning opportunity requests (Marsick & Watkins, 2003).
Lastly, strategic leadership requires leaders to transform people in the organization into a learning culture. Building a learning culture is a primary strength in achieving the vision of the organization (Nazari & Pihie, 2012; Senge, 2006). A learning culture includes creating opportunities for dialogue and participation, which helps empower and motivate people to be part of reaching the organizational goal (Marsick & Watkins, 2003; Senge, 2006).

**Rationale for the Study Based on Findings of the Literature Review**

A review of the literature revealed the significance of student services professionals for increasing student success rates in higher education and for facilitating change in the implementation and adoption of technology as supplemental tools to provide student services. The necessity to increase student success has led California community colleges to undergo organizational changes in delivering student services to a greater number of students via technology. The literature review showed that organizations with learning organization practices are more likely to adapt to changes in the organization. In addition, the review of literature also indicated that assessing an organization’s culture and learning practices is essential in evaluating the organization’s likelihood of successfully implementing change and to determine areas that need improvement to facilitate change. The review of literature concludes and supports the examination of this study’s research question on identifying what dimensions of a learning organization are present in California community colleges’ student services to
help facilitate organizational change in implementing and adopting technology to promote student success.

Summary of the Reviewed Literature

Chapter 2 presented a review of literature about student services and professionals, student success initiatives, technology in education, and facilitating organizational change. Student services professionals play a significant role in providing students with essential support services for achieving their educational goals. The literature revealed that student success is driven by the development of educational programs that offer students the opportunities to engage and create a positive college experience (Kuh, 2011; Kuh et al., 2010). Student involvement and a positive college experience affect the persistence and retention of the student (Astin, 1993; Habley et al., 2012; Kuh, 2009; McDonnell et al., 2014).

Despite the efforts of student services professionals at the California community colleges, past data indicate that student success rates are low and only 24% of college students receive a degree, certificate, or transfer to a 4-year university within a six-year period (CCCCO, 2011). In an effort to increase student success across the CCCS, the 2012 Student Success Act was approved as a state initiative requiring all community colleges to offer core student support services to all college students, with an additional factor for efficiency—the use of technology (CCCCO, 2012; CCCSSTF, 2012). Technology in education is not new and has been proven to be useful and helpful to
college students (Elling & Brown, 2001; Karp & Fletcher, 2014; Schuh et al., 2011). However, many California community colleges must undergo organizational change to implement and adopt new technology for the delivery of mandated student services (CCCSSTF, 2012). Moreover, student services must make necessary organizational changes to meet state mandates. Studies in which new technology was a factor for organizational change indicate that change is important for improving organizational performance but is complex and can be difficult to accomplish in an organization (Edmondson et al., 2001; Karp & Fletcher, 2014). Researchers also argue that a prerequisite assessment reflecting the dimensions of a learning organization should be conducted on the culture of the organization to understand and address areas for improvement for a more successful organizational change (Karp & Fletcher, 2014; Marsick & Watkins, 2003). Research and models about learning organizations emphasize that the culture of the organization is an influential factor in creating a learning organization. In fact, many organizations have resorted to learning organization as the best method to facilitate change (Akgun et al., 2014; Akhtar et al., 2011; Nazari & Pihie, 2012).
Chapter 3

RESEARCH METHODOLOGY

Introduction

The following research was a quantitative study that examined and measured the presence of the dimensions of a learning organization model in student services organizations within the CCCS. Since technology is an important component of the Student Success Act and is necessary for the delivery of student services in California community colleges, student services professionals are essential resources for implementing change and adapting to technology for delivering services to student that will help them succeed in college. Organizations that practice dimensions of a learning organization are more likely to facilitate change (Marsick & Watkins, 2003) and adapt to new technology (Edmondson et al., 2001; Karp & Fletcher, 2014).

Research Question

This study focused quantitatively on one primary point of interest, asking the following research question: What dimensions of a learning organization model are present in California community colleges’ student services organizations that help facilitate organizational change of implementing and adopting technology to promote student success?
Setting of the Study

The study was conducted in Student Services within the CCCS. The CCCS is the largest higher education system in the United States, composed of 112 community colleges and serving more than 2.1 million students (CCCCO, 2015). The colleges offer basic courses in English and math, workforce training, certificates and degree programs, and transfer preparation programs to 4-year institutions. In addition, the colleges offer students a multitude of student services essential for student success. Student services are composed of professional individuals who are important resources and are responsible for effectively providing services to students that meet their needs.

Research Design

Population and Sample

For the purpose of this research, a convenient sample population was chosen that comprised selected professionals associated with student services. Since leadership is an important component in a learning organization, the criteria for selecting subjects as the sample population encompassed professionals identified as leaders in administrative, managerial, and supervisory positions who were selected to voluntarily participate in the survey.

The process of selecting the survey participants was through public email distribution lists hosted by two organizations, the CCCCO and the CCCTC. The CCCCO hosts and maintains distribution lists for subscribers holding specific positions within the
CCCS. The CCCTC hosts, maintains, and supports more than 200 email distribution lists with approximately 68,000 subscribers (California Community Colleges Technology Center, 2015). From the several distribution lists, three were selected based on the title of the lists, with criteria associated to leadership positions in student services. A total of 796 individual subscribers were invited to participate in the study, 188 subscribers of the CCCCO and 608 subscribers to the CCCTC. The distribution lists for this study included the following:

**List maintained by the CCCCO**
- Mat-all@cccco.edu Matriculation Coordinator (188 members)

**Lists maintained by the CCCTC**
- CCC-MATRIC Matriculation Program Coordinators (439 members)
- DEANS-STDT-SRVCS Student Services Deans (169 members)

**Design of the Study**

The design of the study consisted of a quantitative research method. A survey questionnaire, *DLOQ*, developed by Marsick and Watkins (2003) was deployed to collect quantitative data of primarily closed-ended responses from a convenient sample population, including California community colleges’ student services professionals, and measured their perceptions of student services as learning organizations. The purpose of the quantitative data was to determine the presence of the dimensions of a learning organization in student services, which are indicators of facilitating change, including the adaptation and use of technology in organizations. The *DLOQ* has been used in various
sectors as a quantitative study, and is therefore suitable to collect data for assessing specific variables and practices essential in a learning organization.

**Research Instrument**

The process of selecting the research instrument consisted of an in-depth review of literature related to practices that help facilitate change and the adoption and use of technology in organizations. Subsequently, a validated survey instrument, *DLOQ*, co-developed by Marsick and Watkins (2003), was selected. The researcher requested permission from Marsick and Watkins to utilize the instrument for the purpose of conducting the research. Permission to use the instrument was granted, with the exception of utilizing the *entire scale* of the survey due to its validation. Professional research advice was requested to verify the best method to deploy the instrument safely, without compromising the permission of the authors, and ensure respondent retention throughout the study. It was determined that the entire survey be deployed without adding additional survey items (B. Glyer-Culver, personal communication, November 19, 2014).

The instrument was employed to collect quantitative data. The purpose of utilizing this questionnaire was to measure the respondents’ perceptions regarding the extent in which the seven dimensions of learning organizations are present in their student services organization. The *DLOQ* instrument contains a total of 62 closed-ended statements, which are divided into nine sections of six statements per section. Seven sections measure each dimension of a learning organization: Continuous Learning,
Inquiry and Dialogue, Collaboration and Team Learning, Create Systems, Empower People, Connect the Organization, and Strategic Leadership. The other two sections measure key results of financial performance and knowledge performance in the organization.

The Continuous Learning section is comprised of statements about opportunities for people to learn in the organization for the purpose of ongoing education and growth of the individual (Marsick & Watkins, 2003). Items in the Inquiry and Dialogue section focus on what the culture or people in the organization do to work effectively, such as inquiries, feedback, and experimentation (Marsick & Watkins, 2003). Items in the Collaboration and Learning section emphasize how people in the organization collaborate with each other. Items in the Empower People section consist of the inclusiveness of people in their environment with the same vision and decision processes that help people feel involved and motivate them to learn. Items in the Create Systems section entail the development of high and low technology systems to share learning. Items in Connect the Organization section include how the organization helps the people comprehend the effect of their work on the organization, environment, and communities. Items in the Strategic Leadership section include an emphasis on what leaders do to act as models for supporting learning and growth of individuals, which will lead to organizational outcomes. The Financial Performance and Knowledge Performance sections consist of questions that were used to identify demographic information such as the type of organization and the background of the participants.
Data Collection Procedures

The data collection process depended on preliminary requirements to ensure that the researcher followed ethical guidelines and protocols. The preliminary process for collecting data required the researcher to review and follow the ethical standards necessary for conducting a survey. In doing so, the researcher completed the Protecting Human Research Participants web-based training, by the National Institutes of Health (NIH) Office of Extramural Research. The training provided the researcher with information regarding the importance of the ethical guidelines, codes, and regulations for the protection of human subjects. To ensure comprehension of the training, the researcher successfully completed quizzes prompted after each chapter, and upon completion, the researcher received a certificate from the NIH web-based training.

In an effort to follow the ethical standards of the university, the researcher then requested permission to conduct a study from the university’s Institutional Review Board (IRB), which was subsequently granted through a written consent.

A quantitative research method consisting of a survey questionnaire was administered via a web-based survey tool hosted by Qualtrics Online Survey Solutions as a data collection method. Qualtrics is a password-protected website that allows the researcher to access data collected in real-time. The web-based survey and tool were designed to automatically capture data, which measured whether each statement representing a dimension of the learning organization model was almost always or almost
never present in student services. The process of administering the survey and collecting data included the following steps:

- On February 17, 2015, a Survey Invitation Email (see Appendix A) was sent to a sample population of 796 individuals who subscribed to one of the three selected distribution listservs. The email provided the subscribers with a description of the study; an invitation and link to participate in the survey; contact information of the researcher; and, most importantly, it informed the participants that their personal information and individual responses would be kept confidential.

- Individuals interested in participating were instructed to click a link that led them to the Consent to Participate in Research form (see Appendix B).

- After providing consent to participate, the participants continued to the Survey Instrument (see Appendix C).

- On March 10, 2015, three weeks after the initial email, a Survey Invitation Reminder Email (see Appendix D) was sent to the 796 individuals, requesting their participation.

- The survey remained active for a total of five weeks and was deactivated on March 24, 2015.

Data from the respondents was automatically captured by the online survey tool, Qualtrics Online Survey Solutions. All data collected were maintained on a password-protected Qualtrics account, only accessible to the researcher. To protect respondents’
individual responses, data from all the respondents was aggregated for data analysis and reporting.

**Limitations of the Study**

The findings of this study were from a small sample and may not reflect a general representation of all student services personnel learning practices in California community colleges. This study measured learning practices and does not reflect learning styles of professionals in student services. The dimensions of a learning organization represent a perspective of necessary conditions to promote learning, but are not limited to other conditions that may also be identified as essential for learning (Marsick & Watkins, 2003).

**Summary**

The research was grounded on a quantitative research method. The researcher promoted the dimensions of a learning organization to explain the perceptions of professionals in student services about learning practices in their organization. The collection of data from an anonymous online survey assisted in bringing greater breadth to the study of practices in student services within the CCCS. Overall, the foundation of the research focused on evaluating the presence of effective practices in student services that help facilitate technology-based change requirements by state initiatives, projected to promote student success in California community colleges.
Chapter 4
DATA ANALYSIS AND FINDINGS

Introduction

The intent of this study was to identify the status of current practices in student services within the CCCS that help facilitate organizational change in using technology to engage and deliver mandated student services to students. Since the passing of the 2012 Student Success Act, community colleges are undergoing organizational changes that require the adoption of technology for delivering student services. Student services professionals are key resources for delivering services, which are essential for student success. The process of a successful implementation and adoption of technology depends on practices by professionals in student service who have been identified in previous studies as helping facilitate change. Because organizational practices are essential for facilitating change, data were collected from professionals in student services to address the main research question: What dimensions of a learning organization model are present in California community colleges’ student services organizations that help facilitate organizational change of implementing and adopting technology to promote student success?

The data analysis and findings are divided into four key segments: (a) Presentation of the Data, (b) Findings, (c) Interpretation of the Data, and (d) Summary.
Presentation of the Data

The presentation of the data is structured into two main sections: (a) an overview of the participants’ and organizations’ demographics, and (b) dimensions of a learning organization in California community colleges student services.

Recruitment and Response Rate

An invitation to participate in the study was emailed to subscribers of three student services listservs maintained by the California community colleges. The online survey tool used for this study indicated that out of 796 invited individuals, 37 responded. Of the 37 respondents, 10 were excluded from the analysis due to three individuals who did not provide consent to participate and seven participants who did not complete the survey. As a result, a total of 27 individuals chose to participate in the survey, making up 3.4% of the total sample population for this study. Participants were given the option to either respond to the questions or to not respond; therefore, response rates may vary for some survey questions.

Survey Instrument

The data reported in this chapter was generated through the utilization of a survey instrument, DLOQ, developed by Marsick and Watkins (2003). The data findings of this study are addressed in two major sections. The first section addresses general characteristics of the participants and characteristics of the organization. The second section depends on responses by the participants that help identify the current status of the dimensions of a learning organization model that will help facilitate the
implementation of a learning process in student services. The survey instrument included a total of 62 questions; however, a subset of questions was related to characteristics of the participants, organizations, and the primary research question for this study, therefore only those responses are presented below.

Findings

Overview of the Participants and Organizations

The data in this section (see Tables 2 through 5) are a representation of two sets of data. Tables 2 and 3 include demographic information of individuals as student services professionals (who chose to participate in the study). Tables 4 and 5 include characteristics of colleges within the California community colleges system, which the participants represent.

Participants. Table 2 indicates the role of the respondents as professionals of student services in their organization.
Table 2

Role of the Respondent in the Organization

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Management</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Middle Management</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>Supervisory</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Non-Management Technical/Professional</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Non-Management Hourly Employee</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

According to Table 2, approximately 79% of student services professionals who participated in the study were in supervisory or managerial positions in their organizations. Twenty-one percent of student services professionals considered their role in their organization to be a non-management technical/professional or a non-management hourly employee. The data indicate that the majority of participants identified as being in leadership roles of supervisory and managerial positions, which are essential for strategizing and facilitating change in their organization.

Table 3 exhibits the educational experience of student services professionals who participated in the study and were working at a college or district within the CCCS at the time of this study.
Table 3

Respondents’ Education Level of Completion

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not complete high school</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>High school graduate</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Certificate or associates degree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>19</td>
<td>79</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows the educational level of student services professionals who participated in the study. Ninety-two percent of respondents acquired either an undergraduate degree or a higher degree. Of the remaining 8% (or a total of two student services professionals who participated in the study), one respondent did not complete high school and the other respondent completed high school. The data indicate that 92% of professionals attended and successfully acquired a degree from an undergraduate or graduate program in a higher education institution. It can be determined that professionals in student services with the completion of an undergraduate or graduate degree have experience in both roles—as a college student and as a student services professional. Therefore, professionals who have been in both roles may indicate they have a better understanding of the student college experience and develop ways to meet student needs by providing student services.
Organizations. Table 4 displays the perceived size of the organization based on the approximate number of employees in the organization: a college or district within the CCCS.

Table 4

Size of Respondents’ Organizations

<table>
<thead>
<tr>
<th>Question: How many employees are in your organization?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-500</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>501-1,000</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>1,001-10,000</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>10,001-50,000</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Over 50,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4 shows the size of the organization based on the number of employees within the organization. Out of 24 total responses, 50% (or 12 participants) indicated they were part of an organization that had between zero and 500 employees; 25% (or six participants) stated they were in an organization that had between 501 and 1,000 employees; 21% or (five participants) stated they were in an organization that had between 1,001 and 10,000 employees; and, finally, 4% (or one participant) indicated they were part of an organization that had between 10,001 to 50,000 employees.

Table 5 displays a Likert-type scale between 1 and 6, in which 2 means “no” or “not very true” and 5 means “yes” or “true,” to suggest organizational changes such as acquiring new products or services and expenditures of technology and information.
processing compared to last year. More specifically, Question 1 asked if the organization implemented new products or services, and Question 2 asked whether the percentage of total spending for new technology had increased in the organization.

Table 5

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>No</th>
<th>Maybe Yes/No</th>
<th>Yes</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In my organization, the number of new products or services is greater than last year.</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>4</td>
<td>22</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>In my organization, the percentage of total spending devoted to technology and information processing is greater than last year.</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>0</td>
<td>13</td>
<td>9</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 5 shows that a total of 23 participants responded to the two survey items above. In order to present more refined results, the responses were interpreted as follows: on the scale from 1 to 6, responses of 1 and 2 indicated “No;” responses of 3 and 4 indicated “Maybe Yes/No;” and responses of 5 and 6 indicated “Yes.”

**Products and Services**

Question 1 responses suggested that 52% of participants believed there were a greater number of new products or services in their organization compared to last year. Twenty-two percent of participants were unsure if the number of new products or services was greater than last year. On the other hand, 26% of participants did not
believe the number of new products or services was greater than last year in their organizations.

**Technology and Information Processing**

Question 2 data indicate that 56% of participants believed there were a greater number of new products or services in their organizations. Approximately 31% of participants stated that the total spending devoted to technology and information processing may have or may not have been greater than last year. However, 13% of participants did not believe the total spending devoted to technology and information processing was greater than last year.

**Dimensions of a Learning Organization**

This section reflects survey item responses based on categories identified in Marsick and Watkins’ (2003) learning organization model, which elicits the perceptions of the participants about their organization, including (a) continuous learning, (b) inquiry and dialogue, (c) collaboration and team learning, (d) systems to capture learning, (e) empower people toward a collective vision, (f) connect the organization to its environment, and (g) provide strategic leadership for learning—all of which are essential practices for facilitating organizational change.

For Tables 6 through 12, the participants provided their perceptions of their organizations’ learning organizational practices by responding to survey items 1-43 on a 1 to 6 scale, in which 1 suggests that the practice never or rarely occurs, and 6 suggests that the practice occurs always or almost always. However, for a more refined analysis
of the scale from 1 to 6, the scale was divided into two sections so that 1, 2, or 3 on the scale indicates that the practice does not occur often and 4, 5, or 6 on the scale indicates that the practice occurs often.

Each number on the scale (1 to 6) represents its actual numerical point value on the scale. For example, 2 on the scale represents the numerical value of 2 points and 5 on the scale represents the numerical value of 5 points, etc. The numerical point values were used to identify the total average of each survey item and dimension.

For the total point average of each survey item, the response frequencies were multiplied by the numerical value of points, and the totals were summed and then divided by the total number of respondents. The degree for each statement and dimension present in Student Services at California community colleges was determined by the responses’ total point average value on the 1 through 6 scale.

**Continuous learning.** Table 6 displays the degree of the continuous learning dimension that the respondents perceived at their organizations. The continuous learning dimension below consists of seven statements that, according to Marsick and Watkins (2003), are practices in a learning organization.
Table 6

Continuous Learning Practices in California Community Colleges Student Services

<table>
<thead>
<tr>
<th>Questions 1-7</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In my organization...</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. People openly discuss mistakes in order to learn from them.</td>
<td>2 3 6 8 6 2</td>
<td>41% 59% 100%</td>
<td>27</td>
<td>3.7</td>
</tr>
<tr>
<td>2. People identify skills they need for future work tasks.</td>
<td>3 5 6 4 3</td>
<td>52% 48% 100%</td>
<td>27</td>
<td>3.44</td>
</tr>
<tr>
<td>3. People help each other learn.</td>
<td>0 4 6 4 7</td>
<td>37% 63% 100%</td>
<td>27</td>
<td>4.22</td>
</tr>
<tr>
<td>4. People can get money and other resources to support their learning.</td>
<td>3 1 9 4 4</td>
<td>48% 52% 100%</td>
<td>27</td>
<td>3.7</td>
</tr>
<tr>
<td>5. People are given time to support learning.</td>
<td>2 5 6 7 2</td>
<td>44% 56% 100%</td>
<td>27</td>
<td>3.63</td>
</tr>
<tr>
<td>6. People view problems in their work as an opportunity to learn.</td>
<td>3 7 5 6 2</td>
<td>52% 48% 100%</td>
<td>27</td>
<td>3.37</td>
</tr>
<tr>
<td>7. People are rewarded for learning.</td>
<td>4 5 3 8 5 2</td>
<td>44% 56% 100%</td>
<td>27</td>
<td>3.41</td>
</tr>
<tr>
<td><strong>Dimension Total Point Average:</strong></td>
<td></td>
<td></td>
<td></td>
<td>3.63</td>
</tr>
</tbody>
</table>

According to Table 6, 27 respondents perceived the presence of the continuous learning practices in their organization, shown in a total point average of 3.63 on a scale of 1 through 6 (where 1 means never or rarely true and 6 means always or almost always true).
Table 6 shows that more than 52% of the 27 respondents believed that five of the seven statements about continuous learning practices occurred often in their organizations. Of the 27 respondents, 59% thought people openly discussed mistakes in order to learn from them while 41% of respondents did not think that practice occurred often in their organizations. According to 52% of the respondents, people in their organizations did not identify skills they needed for future tasks while 48% of respondents thought people in their organization identified skills they needed for future tasks. Sixty-three percent of the respondents believed people helped each other learn, and 37% believed people did not help each other learn. Stated by 52% of the respondents, people were able to get money and resources to support their learning; however, 48% of the respondents indicated people in their organization cannot get money and resources to support learning. According to 56% of the respondents, people were given time to support their learning while 44% thought otherwise. Fifty-two percent of respondents did not think that people in their organization viewed problems in their work as opportunities to learn; however, 48% did believe problems at work were opportunities to learn. And lastly, 56% of the responses indicated that people were rewarded for learning while 44% did not believe that people in their organization were rewarded for learning.

**Inquiry and dialogue.** Table 7 shows the degree of the inquiry and dialogue dimension present in the respondents’ organizations. According to Marsick and Watkins
(2003), the inquiry and dialogue dimension below consists of six statements, which are practices in a learning organization.

Table 7

Inquiry and Dialogue in California Community Colleges’ Student Services

<table>
<thead>
<tr>
<th>Questions 8-13</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2  3</td>
<td>4  5  6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In my organization...</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. People give open and honest feedback to each other.</td>
<td>0  9  7</td>
<td>2  5  4</td>
<td>27</td>
<td>3.56</td>
</tr>
<tr>
<td></td>
<td>59%</td>
<td>41%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>9. People listen to others’ views before speaking.</td>
<td>0  3  10</td>
<td>7  7  0</td>
<td>27</td>
<td>3.67</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>52%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>10. People are encouraged to ask “why” regardless of rank.</td>
<td>2  5  5</td>
<td>5  6  4</td>
<td>27</td>
<td>3.74</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>56%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>11. Whenever people state their view, they also ask what others think.</td>
<td>1  5  9</td>
<td>6  3  2</td>
<td>27</td>
<td>3.42</td>
</tr>
<tr>
<td></td>
<td>56%</td>
<td>44%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>12. People treat each other with respect.</td>
<td>2  3  7</td>
<td>5  7  3</td>
<td>27</td>
<td>3.78</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>56%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>13. People spend time building trust with each other.</td>
<td>2  5  8</td>
<td>3  6  3</td>
<td>27</td>
<td>3.56</td>
</tr>
<tr>
<td></td>
<td>56%</td>
<td>44%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Dimension Total Point Average:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.62</strong></td>
</tr>
</tbody>
</table>

According to Table 7, the total perceptions of 27 respondents about their organization indicated that the presence of the learning organization dimension, Inquiry and Dialogue, averages a total of 3.62 on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).
Moreover, Table 7 shows that more than 52% of the respondents believed three of the six statements that make up practices of the inquiry and dialogue dimension occur often. Fifty-nine percent of the 27 respondents believed that the practice in which people give open and honest feedback to each other did not occur often; however, 41% of the respondents believed that people gave open and honest feedback to each other. Fifty-two percent of the 27 respondents believed that people in their organizations listened to each other’s views before speaking, but 48% did not believe that people in their organizations listened to other’s views before speaking. Sixty-three percent of the 27 respondents believed that people often helped each other learn, and 37% believed that people did not often help each other learn. According to 56% of the respondents, people were encouraged to ask “why” regardless of rank, and people treated each other with respect. In contrast, 44% of the respondents thought people were not often encouraged to ask “why” regardless of rank, and people did not often treat each other with respect. And lastly, 56% of the 27 responses indicated that whenever people stated their view they did not often ask what others thought, and time was not often spent building trust with people in their organizations. On the other hand, 44% of the respondents believed that people spent time to build trust with each other, and people asked what others thought when they stated their view.

**Collaboration and team learning.** Table 8 shows the respondents’ perceptions of collaboration and team learning practices in their organization. The six statements
below demonstrate the inquiry and dialogue dimension as practices of a learning organization (Marsick & Watkins, 2003).

Table 8
Collaboration and Team Learning in California Community Colleges’ Student Services

<table>
<thead>
<tr>
<th>Questions 14-19</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2   3</td>
<td>4  5   6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In my organization…</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Teams/groups have the freedom to adapt their goals as needed.</td>
<td>0  6   4</td>
<td>6  6   4</td>
<td>26</td>
<td>3.92</td>
</tr>
<tr>
<td></td>
<td>38%</td>
<td>62%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>15. Teams/groups treat members as equals, regardless of rank, culture, or other differences.</td>
<td>2  4   3</td>
<td>9  5   3</td>
<td>26</td>
<td>3.77</td>
</tr>
<tr>
<td></td>
<td>35%</td>
<td>65%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>16. Teams/groups focus both on the group’s task and on how well the group is working.</td>
<td>0  6   5</td>
<td>6  7   2</td>
<td>26</td>
<td>3.77</td>
</tr>
<tr>
<td></td>
<td>42%</td>
<td>58%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>17. Teams/groups revise their thinking as a result of group discussions or information collected.</td>
<td>0  5   5</td>
<td>4  8   4</td>
<td>26</td>
<td>4.04</td>
</tr>
<tr>
<td></td>
<td>38%</td>
<td>62%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>18. Teams/groups are rewarded for their achievements as a team/group.</td>
<td>5  6   6</td>
<td>5  3   1</td>
<td>26</td>
<td>2.92</td>
</tr>
<tr>
<td></td>
<td>65%</td>
<td>35%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>19. Teams/groups are confident that the organization will act on their recommendations.</td>
<td>1  7   5</td>
<td>7  5   1</td>
<td>26</td>
<td>3.42</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Dimension Total Point Average:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.64</strong></td>
</tr>
</tbody>
</table>

Table 8 shows that 26 respondents perceived the presence of collaboration and team learning in their organization, giving a total point average of 3.64 on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).
Table 8 reveals that more than 50% of respondents believed that five of six practices that resemble collaboration and team learning occurred often in their organizations. Sixty-two percent of the respondents agreed that teams/groups often had the freedom to adapt their goals as needed; however, 38% believed that teams/groups did not often have the freedom to adapt their goals as needed. Moreover, 65% of the responses showed that members in groups/teams often treated each other as equals, regardless of rank, culture, or other differences; but 35% did not believe that the practice occurred often. According to 58% of the respondents, teams/groups focused both on the group’s task and on how well the group was working; however, 42% of respondents believed that teams/groups did not often focus on both group tasks and how well the group was working. Teams/groups revised their thinking often as a result of group discussions of information collected, according to 62% of the respondents; however, 38% believed that teams/groups did not often revise their thinking as a result of group discussions or information collected. Sixty-five percent of the responses indicated that teams/groups were not often rewarded for their achievements as a team/group, but 35% of the responses indicated that teams/groups were often rewarded for their achievement as a team/group. Fifty percent of the respondents believed that teams/groups were often confident that the organizations would act on their recommendations, and 50% believed that teams/groups were not often confident that the organizations would act on their recommendations.
**Systems to capture learning.** Table 9 displays the degree of the continuous learning dimension that the respondents perceived in their organization. The six statements in Table 9 represent practices of systems to capture learning that, according to Marsick and Watkins (2003), are important for learning in an organization.

Table 9

Systems to Capture Learning in California Community Colleges’ Student Services

<table>
<thead>
<tr>
<th>Questions 20-25</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. Uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings.</td>
<td>3 6 5 2 8 2 26</td>
<td></td>
<td></td>
<td>3.46</td>
</tr>
<tr>
<td></td>
<td>54% 46% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Enables people to get needed information at any time quickly and easily.</td>
<td>1 7 5 5 5 3 26</td>
<td></td>
<td></td>
<td>3.58</td>
</tr>
<tr>
<td></td>
<td>50% 50% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Maintains an up-to-date database of employee skills.</td>
<td>13 6 4 3 1 0 27</td>
<td></td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>89% 11% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Creates systems to measure gaps between current and expected performance.</td>
<td>6 6 4 6 4 1 27</td>
<td></td>
<td></td>
<td>2.96</td>
</tr>
<tr>
<td></td>
<td>62% 38% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Makes its lessons learned available to all employees.</td>
<td>10 5 7 2 3 0 27</td>
<td></td>
<td></td>
<td>2.37</td>
</tr>
<tr>
<td></td>
<td>85% 15% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Measures the results of the time and resources spent on training.</td>
<td>12 5 5 4 1 0 27</td>
<td></td>
<td></td>
<td>2.15</td>
</tr>
<tr>
<td></td>
<td>85% 15% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimension Total Point Average: 2.75

According to Table 9, the total point average for the dimension of systems to capture learning includes six statements and is based on the perceptions of 26 or 27
respondents for a 2.75 on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).

Table 9 shows that 50% of respondents believed that one of six practices of systems to capture learning occurred often in their organizations. Fifty-four percent of the participants agreed that their organizations did not often use two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings; however, 46% agreed that two-way communication practices occurred often in their organizations. Fifty percent of the respondents believed that their organizations often enabled people to get needed information at any time quickly and easily while the other 50% of respondents concurred that their organizations did not often enable people to get needed information at any time quickly and easily. A majority of respondents, 89% suggested that their organizations did not often maintain up-to-date databases of employee skills; however, 11% thought their organizations maintained up-to-date databases of employee skills. According to 62% of the responses, the participants’ organizations did not often create systems to measure gaps between current and expected performance, but 38% of the participants suggested that their organizations more often created systems to measure gaps between current and expected performance. Moreover, a high percentage (85%) of respondents maintained that their organizations did not often make lessons learned available to all employees and did not often measure the results of time and resources spent on training. On the other hand, 15% of the respondents thought otherwise, suggesting that their organizations more often made
lessons available to all employees and measured the results of time and resources spent on training.

**Empower people toward a collective vision.** Table 10 shows the degree that the respondents perceived current practices of empowering people toward a collective vision in their organization. According to Marsick and Watkins (2003), empowering people toward a collective vision is a practice of learning organizations, construed through six statements in the *DLOQ*. 
Table 10

Empowerment of People in California Community Colleges’ Student Services Toward a Collective Vision

<table>
<thead>
<tr>
<th>Questions 26-31</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2  3  4  5  6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Recognizes people for taking initiative.</td>
<td>5  3  8  4  4  3</td>
<td>27</td>
<td>3.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59% 41% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Gives people choices on their work assignments.</td>
<td>6  6  5  6  4  0</td>
<td>27</td>
<td>2.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63% 37% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Invites people to contribute to the organization’s vision.</td>
<td>1  4  5  6  6  5</td>
<td>27</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37% 63% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Gives people control over the resources they need to accomplish their work.</td>
<td>2  7  7  4  5  2</td>
<td>27</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59% 41% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Supports employees who take calculated risks.</td>
<td>2  5  6  5  5  2</td>
<td>27</td>
<td>3.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48% 52% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Builds alignment of visions across different levels and work groups.</td>
<td>2  5  8  4  8  0</td>
<td>27</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>56% 44% 100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimension Total Point Average:</strong></td>
<td></td>
<td></td>
<td><strong>3.40</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 10 is based on the perceptions of 27 respondents about the dimension of empowering people toward a collective vision, which includes six statements that totaled the point average of 3.40 on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).

Table 10 shows that more than 52% of the 27 respondents believed that two of the six statements about practices for empowering people toward a collective vision occurred
often in their organizations. Of the 27 respondents, 59% believed their organizations did not often recognize people for taking initiative; however, 41% of the responses suggested that their organizations often recognized people for taking initiative. Sixty-three percent of the responses show that the participants’ organizations did not often give people choices on their work assignments; however, 37% of the responses indicated otherwise, stating that their organizations often gave people choices on work assignments. Moreover, 63% of the respondents indicated that their organizations often invited people to contribute to the organization’s vision, yet 37% suggested that their organizations did not often invite people to contribute to the organization’s vision. Fifty-nine percent of the responses reveal that organizations did not often give people control over the resources they needed to accomplish their work; however, responses also suggested that 41% of the participants believed their organizations often gave people control over the resources they needed to accomplish their work. Also, 52% of the participants concurred that their organizations often supported employees who took calculated risks, but 48% of participants indicated their organizations did not often support employees who took calculated risks. While 56% of the respondents specified that their organizations did not often build alignment of the visions across different levels and work groups, 44% stated that their organizations often built alignment of visions across different levels and work groups.

**Connect the organization to its environment.** Table 11 shows the respondents’ perceptions of practices that connect their organizations to their environments. The six
statements below demonstrate practices that help connect the organization to its environment (Marsick & Watkins, 2003).

Table 11

Practices for Connecting the Organization to its Environment

<table>
<thead>
<tr>
<th>Questions 32-37</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>My organization...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Helps employees balance work and family.</td>
<td>9 2 8</td>
<td>3 3 2</td>
<td>27</td>
<td>2.81</td>
</tr>
<tr>
<td></td>
<td>70% 30%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. Encourages people to think from a global perspective.</td>
<td>4 6 4</td>
<td>6 5 2</td>
<td>27</td>
<td>3.30</td>
</tr>
<tr>
<td></td>
<td>52% 48%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Encourages everyone to bring the customers’ views into the decision making process.</td>
<td>1 3 6</td>
<td>7 6 4</td>
<td>27</td>
<td>3.96</td>
</tr>
<tr>
<td></td>
<td>37% 63%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. Considers the impact of the decisions on employee morale.</td>
<td>6 7 4</td>
<td>5 3 2</td>
<td>27</td>
<td>2.93</td>
</tr>
<tr>
<td></td>
<td>63% 37%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Works together with the outside community to meet mutual needs.</td>
<td>1 5 6</td>
<td>8 4 3</td>
<td>27</td>
<td>3.67</td>
</tr>
<tr>
<td></td>
<td>44% 56%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Encourages people to get answers from across the organization when solving problems.</td>
<td>4 4 6</td>
<td>3 6 4</td>
<td>27</td>
<td>3.56</td>
</tr>
<tr>
<td></td>
<td>52% 48%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimension Total Point Average</strong></td>
<td><strong>3.37</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 shows the total point average for the dimension of connecting the organization to its environment (which includes six statements) to be 3.37 based on the perceptions of 27 respondents on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).
Table 11 reveals that more than 56% of the 27 respondents believed that two of the six statements about practices for connecting the organization to its environment occurred often in their organizations. According to 70% of the participants, their organizations did not often help employees balance work and family; however, 30% of the respondents indicated that their organizations often helped employees balance work and family. Fifty-two percent of the respondents agreed that their organizations did not often encourage people to think from a global perspective and did not often encourage people to get answers from across the organization when solving problems. However, 48% of respondents agreed that their organizations often encouraged people to think from a global perspective and often encouraged people to get answers from across the organization when solving problems. Additionally, 63% of the responses indicated that the organizations encouraged everyone to bring the customers’ views into the decision-making process, yet 37% of the respondents agreed that their organizations did not often encourage everyone to bring the customers’ views into the decision-making process. Furthermore, 56% of the participants agreed that their organizations often worked together with the outside community to meet mutual needs; however, 44% of respondents believed their organizations did not work together with the outside community to meet mutual needs.

**Provide strategic leadership for learning.** Table 12 displays the degree of the strategic leadership for learning dimension that respondents perceived in their organizations. The six statements in Table 12 represent strategic leadership practices.
that, according to Marsick and Watkins (2003), are important for learning in an organization.

Table 12

Strategic Leadership Practices for Learning in California Community Colleges’ Student Services

<table>
<thead>
<tr>
<th>Questions 32-37</th>
<th>Rarely or Never Occurs</th>
<th>Almost Always Occurs</th>
<th>Total Response</th>
<th>Average of 1-6 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>My organization…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. Leaders generally support requests for learning opportunities and training.</td>
<td>1 3 5 12 3 27</td>
<td>33% 67% 100%</td>
<td>4.15</td>
<td></td>
</tr>
<tr>
<td>39. Leaders share up-to-date information with employees about competitors,</td>
<td>5 6 3 6 3 27</td>
<td>56% 44% 100%</td>
<td>3.37</td>
<td></td>
</tr>
<tr>
<td>industry trends, and organizational directions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Leaders empower others to help carry out the organization’s vision.</td>
<td>2 4 3 8 3 27</td>
<td>44% 56% 100%</td>
<td>3.67</td>
<td></td>
</tr>
<tr>
<td>41. Leaders mentor and coach those they lead.</td>
<td>5 4 5 3 27</td>
<td>56% 44% 100%</td>
<td>3.30</td>
<td></td>
</tr>
<tr>
<td>42. Leaders continually look for opportunities to learn.</td>
<td>4 5 4 6 4 27</td>
<td>48% 52% 100%</td>
<td>3.56</td>
<td></td>
</tr>
<tr>
<td>43. Leaders ensure that the organization’s actions are consistent with the</td>
<td>1 2 7 5 4 27</td>
<td>37% 63% 100%</td>
<td>4.07</td>
<td></td>
</tr>
<tr>
<td>values.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimension Total Point Average 3.63

According to Table 12, the perceptions of 27 respondents concluded the total point average for the dimension of strategic leadership for learning (which includes six
statements) to be 3.63 on a scale of 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true).

Table 12 shows that more than 52% of the 27 respondents believed four of the six statements that represent strategic leadership practices occurred often in their organizations. Sixty-seven percent of the participants agreed that leaders in their organizations often generally supported requests for learning opportunities and training; however, 33% of the participants believed leaders in their organizations did not often generally support requests for learning opportunities and training. Also, 56% of the responses show that leaders did not often mentor and coach those they led and leaders did not often share up-to-date information with employees about competitors, industry trends, and organizational directions. In contrast, 44% of the responses indicated that leaders often mentored and coached those they led and leaders in their organizations often shared up-to-date information with employees about competitors, industry trends, and organizational directions. Moreover, 56% of participants suggested that leaders often empowered others to help carry out the organization’s vision, but 44% believed leaders did not often empower others to help carry out the organization’s vision. While 52% of respondents agreed that leaders in their organizations often looked for opportunities to learn, 48% disagreed, suggesting that leaders did not often look for opportunities to learn. For 63% of the participants, leaders in their organizations often ensured the organization’s actions were consistent with the values; however, 37% of the participants
believed that leaders in their organizations did not often ensure the organization’s actions were consistent with the values.

**Interpretation of the Data**

This section provides a summary analysis of the data reviewed in the previous section, which addresses the research question about existing dimensions of a learning organization model in California community colleges’ student services that help facilitate organizational change. The presence of each dimension was determined from the perceptions of student services professionals in California community colleges who participated in the survey. The organization of the analysis depended on Watkins and Marsick’s (1993) learning organization model and their *DLOQ* (2003), which includes seven dimensions: (a) continuous learning, (b) inquiry and dialogue, (c) collaboration and team learning, (d) systems to capture learning, (e) empower people toward a collective vision, (f) connect the organization to its environment, and (g) provide strategic leadership for learning.

**Summary of the Continuous Learning Dimension**

This section summarizes data related to six continuous learning practices that determined the presence of the dimension in student services within the California community colleges. The survey revealed that the entire dimension ranged a high total point average of 3.63 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), supporting a positive presence of continuous
learning in student services. Moreover, over half the individuals (52%) agreed that five of the seven (71%) continuous learning practices occurred often. Such practices are significant because they support various types of continuous learning opportunities, and organizational learning is vital for implementing change. Furthermore, a majority of individuals (63%) stated that the most prominent learning practice in student services was helping each other learn, followed by 59% of the population who agreed that discussing and learning from mistakes was a practice that occurred more often in their organizations. Ironically, more than half the individuals (52%) reported that problems at work were not perceived as learning opportunities. In more than 52% of the organizations, continuous learning was encouraged and supported by offering people time, money, and resources to learn and rewarding people for learning. However, over half the individuals (52%) admitted that people in their organizations did not often identify necessary skills to prepare for future tasks. The overall data revealed that the dimension of continuous learning is mostly supported in student services.

**Summary of the Inquiry and Dialogue Dimension**

This section summarizes data related to six practices of the inquiry and dialogue dimension in the *DLOQ*, which determined its presence. Data revealed that the entire dimension scored a total point average of 3.62 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), which supports a positive presence of inquiry and dialogue in student services. Furthermore, out of the six statements, more than 52% believed that at least half of the statements occurred more
often in their organizations. People respected and listened to other views before speaking, but according to more than half the individuals (56%), when people stated their views, they did not often ask for other perspectives. Additionally, most individuals (56%) agreed that people were encouraged to ask questions. According to 59% of responses, open and honest feedback lacked significantly. Trust between people in organizations is necessary for facilitating change (Bowen et al., 2007), but more than half the population (56%) stated that people did not often spend the time needed to build trust with each other. Organizational performance to implement change depends on the significance of the inquiry and dialogue between people in organizations.

**Summary of the Collaboration and Team Learning Dimension**

The *DLOQ* survey represented this dimension through six statements about collaboration and team learning practices to determine its presence. Revealed by the survey, the entire dimension scored a high total point average of 3.64 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), supporting a positive presence of collaboration and team learning in student services. The survey revealed that teams often revised their thinking by discussing and collecting information and were often given the freedom to adapt their goals as needed. Moreover, a majority of participants (65%) indicated that team members treated each other as equals, regardless of differences, and most people (58%) agreed that teams focused on the productivity of group tasks. Team learning improves productivity by people working together to resolve challenges (Bowen et al., 2007). However, only half the respondents
were confident the organizations would act on the recommendations produced by the group. Furthermore, most individuals (65%) agreed that teams were not often rewarded for their achievements. As stated by Watkins and Marsick (1993), organizations must acquire conditions for teams to collaborate and learn together to be more efficient in the organization than as individuals.

**Summary of Systems to Capture Learning Dimension**

The *DLOQ* survey presented the dimension of systems to capture learning by utilizing six statements to determine its presence. The entire dimension scored a total point average of 2.75 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), which disclosed the presence of systems to capture learning in student services to be negative. The survey indicated that most organizations lacked majority (five out of six) practices related to systems that capture learning. The most significant indicator of systems to capture learning is the agreement of half the population about people being able to retrieve information quickly at any time in their organizations. Although the use of technology is prominent for communicating and accessing information, more than half the participants (54%) indicated their organizations did not often use two-way communications for suggestions, information, and meetings. The study revealed that there was a 62% lack of systems for measuring gaps between current and expected performance of people in the organizations. Regarding professional development, an extremely high percentage of participants (89%) agreed that their organizations did not maintain up-to-date databases of employee skills and training.
Additionally, most respondents (85%) indicated that their organizations did not often capture the time and types of training completed, nor did their organizations make learning lessons available to all employees. Creating learning systems are essential to manage, facilitate, and maximize continuous learning for people in the organization (Ellis, 2009; Senge, 2006).

**Summary of Empowering People Toward a Collective Vision Dimension**

The *DLOQ* survey presented six statements about practices for empowering people toward a collective vision to determine the presence of the dimension. The entire dimension scored a total point average of 3.4 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), supporting a positive presence of empowering people toward a collective vision in student services. Although the dimension has a positive presence, when asked about practices that empower people in their organizations, more than half the individuals (52%) stated that two of the six practices occurred often in their organizations. It is notable that a majority of participants specified that their organizations invited people to contribute to the organizations’ visions but the organizations did not often align the visions across the various levels and workgroups. Consistent responses from most participants showed that organizations did not often give people options for work assignments or control over necessary resources to accomplish their work. Nonetheless, more than half the respondents (52%) concurred that their organizations supported people who took calculated risks, but 59% of people stated they were often not recognized for taking initiative.
Summary of Connecting the Organization to Its Environment Dimension

The DLOQ survey utilized six statements to determine the presence of the dimension of connecting the organization to its environment. The entire dimension scored a total point average of 3.37 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), which revealed the presence of connecting the organization to its environment in student services to be positive. Students are the customers in the higher education setting, and when asked whether their organizations encouraged everyone to bring the customers’ views into the decision-making process, a majority of individuals (63%) agreed. However, their organizations did not consider the impact of decisions on employee morale. Responding to the needs of people in the organization is a social commitment that affects work environments (Bowen et al., 2007), yet a high percentage of individuals (70%) stated that their organizations did not often help employees balance work and family. Ironically, 56% of the participants indicated their organizations worked with the outside community to meet mutual needs. In more than half of the respondents’ organizations, people were not often encouraged to think from a global perspective or reach out to people from across the organization to solve a problem. Even though the total point average is positive for this dimension of connecting the organization to its environment, responses to the survey indicate that customers’ needs were perceived as greater than those of the people working in the organizations. Conversely, organizational productivity depends on morale, motivation,
and shared purposes developed from relationships between people and leaders in the organization (Johnson, 2012).

**Summary of the Strategic Leadership for Learning Dimension**

The *DLOQ* survey presented six statements about strategic leadership for learning practices to determine the presence of the dimension. The entire dimension scored a high total point average of 3.63 on the scale from 1 to 6 (where 1 means never or rarely true and 6 means always or almost always true), supporting a positive presence of strategic leadership for learning in student services. There was a strong indication from a majority of participants (63%) that leaders ensured consistency between the organizations’ actions and values. By doing so, most individuals (56%) concurred that leaders empowered people to carry out the vision of the organization but leaders did not often mentor and coach those they led. Also, according to more than half of the 27 respondents, leaders continually looked for opportunities to learn and support requests for learning and training opportunities. However, 56% of the individuals stated that leaders did not often share up-to-date information with employees about competitors, industry trends, and organizational directions—which may also be a reason why people did not think on a global perspective and did not look for skills they needed for future tasks. However, strategic leadership practices are essential and influential in optimizing organizational learning, change, and performance.
Summary

Chapter 4 presented an introduction to the study, presentation of the data, and interpretation of the data. In summary, the results from the survey demonstrate the degree in which each dimension of Watkins and Marsick’s (1993) learning organization model and practices, adopted from the DLOQ, are present in student services. All but one dimension of learning organization ranged greater than the total point averages of 3.0 on a 1 to 6 scales, indicating that majority practices of the dimensions of a learning organization model are positively present and occur more than often in California community colleges’ student services. However, with a total point average of 2.75, the dimension of systems to capture learning is evidently an area of concern and requires attention. In general, all dimensions of the learning organization were perceived to be present to some degree by student services professionals in California community colleges.
Chapter 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary
The primary purpose of this study was to determine what practices in student services within the CCCS help facilitate organizational change for delivering mandated student services. Prerequisites of identifying and reviewing literature related to the study were completed to achieve the goal of the study. Identifying what role professionals play in student services to assist students to succeed in college was a prominent factor during the review of literature for this thesis. It was also imperative for the researcher to understand the importance of technology in education and influential practices in an organization that help facilitate the processes for implementing and adopting technology. A theoretical framework using Astin’s (1984/1999) student involvement theory and Marsick and Watkin’s (2003) learning organization model provided the researcher a vital foundation for maximizing the use of technology in education as a supplemental tool to promote factors for student success. Subsequently, the following research question was addressed in the study: What dimensions of a learning organization model are present in California community colleges’ student services organizations that help facilitate organizational change in implementing and adopting technology to promote student success?
The methodology used to answer the research question depended on a quantitative method using a 62-item survey instrument, *DLOQ*, written and validated by Marsick and Watkins (2003). The instrument was deployed via email to three listservs, which are recognized by the California Community Colleges System to include subscribers identified as student services professionals. The listservs yielded a sample size of 796 individuals. Data from 37 respondents were collected and recorded using Qualtrics Online Survey Solutions—a web-based survey tool. The responses reflect the perceptions of student services professionals about organizational practices, which determined the presence of dimensions from Marsick and Watkins (2003) learning organization model in California Community Colleges.

The remainder of this chapter offers conclusions regarding the theoretical framework and reviewed literature, as they relate to survey data results from this study, and recommendations for follow-up and future studies.

**Conclusions**

Grounded on Astin’s (1984/1999) student involvement theory, technology is an indispensable tool in education and, once implemented, adopting it is vital for developing educational activities and creating opportunities that enhance student success. Seventy-five percent of undergraduate students believe that technology helps them achieve their academic outcomes and better prepares them for future educational plans (Dahlstrom et al., 2013). The institution website and computer management systems were rated by
undergraduate students and by DEEP schools as important technology resources that help students succeed (Dahlstrom et al., 2013; Kuh et al., 2010). The use of technology to inform students about support services and activities and the use by professionals to deliver support services to students are supplemental methods that help engage students in their educational goals (Elling & Brown, 2001; Engstrom & Kruger, 1997; Kuh et al., 2010). Moreover, state initiatives to increase student success in California community colleges have resorted to the implementation and adoption of technology (CCCCO, 2014). According to the survey results, more than half the participants agreed that, compared to last year, California community colleges have increased total spending in technology and information processing tools, and new products and services have increased. Such findings support the notion that California community colleges are undergoing organizational changes through the implementation and adoption of technology and new services.

Literature suggests that organizational change, such as implementing technology, is complex and difficult to accomplish (Edmondson et al., 2001; Karp & Fletcher, 2014; Kezar, 2001; Nazari & Pihie, 2012) and must be done strategically (Akhtar et al., 2011; Karp & Fletcher, 2014). Moreover, the most effective method to facilitate change is by assessing the organization for feedback about practices that contribute to implementing change (Akhtar et al., 2011; Karp & Fletcher, 2014; Marsick & Watkins, 2003). The act of conducting this study supported the method of capturing the perceptions of professionals in student services, which helps initiate the process of change in an
organization and increase understanding about the level of organizational readiness for change.

Moreover, the literature review suggested that the readiness of an organization to accomplish change can be determined by the cultural and organizational practices in the organization (Akhtar et al., 2011; Bowen et al., 2007; Garvin et al., 2008; Karp & Fletcher, 2014; Marsick & Watkins, 2003; Nazari & Pihie, 2012; Senge, 1990). Researchers assert the need for assessment tools to measure cultural and organizational practices in an organization (Bowen et al., 2007; Garvin et al., 2008; Marsick & Watkins, 2003). Among the various tools, common themes identified in the assessments are those derived from or similarly identified in Marsick and Watkins’ (2003) DLOQ, which was adopted from their (1993) learning organization model. The themes of the learning organization assessments included continuous learning opportunities, inquiry and dialogue, collaboration and team learning, systems to capture and share learning, empower people toward a collective vision, connection between the organization and its environment, and strategic leadership for learning (Marsick & Watkins, 2003). The study determined the presence of the dimensions of a learning organization in California community colleges’ student services. The data concluded a mostly positive presence of learning organization dimensions in California community colleges, with the exception of the following dimension: systems to capture and share learning.
Recommendations

The following recommendations were drawn from the data collected during this study as possible suggestions for futures practices and study.

Recommendations for Practice

The purpose of this study was to identify current dimensions of a learning organization model, which help facilitate organizational change, that are present in California community colleges’ student services. Although most of the dimensions showed a positive presence, student services professionals mostly agreed that systems to capture and share learning is a dimension that lacks significantly in student services, with a total point average of 2.75. For an organization to remain competitive and innovative, all the dimensions of a learning organization must be present, including a system to capture and share learning (Bowen et al., 2007; Garvin et al., 2008; Senge, 2006); this requires creating a system or implementing and using a learning management system to develop, offer, and track learning opportunities for all professionals in the organization (Ellis, 2009; Marsick & Watkins, 2003). Additionally, a learning management system can be used to maintain an up-to-date database of employee skills that records the time and resources spent on training (Ellis, 2009; Marsick & Watkins, 2003). Moreover, as part of a learning system, professionals in the organization should be able to retrieve necessary information at any time (Marsick & Watkins, 2003).

The following recommendations were drawn from survey responses about the occurrence of practices for each of the remaining learning organization dimensions.
Although they revealed a positive presence in student services, with a total point average ranging above 3.0 on a 1-6 scale, each dimension exposed the need for improving practices that do not occur often.

- For the continuous learning dimension, two practices need to be improved to strengthen the dimension: (a) people in the organization must be able to identify necessary skills for future tasks, and (b) people should view problems in their work as learning opportunities.

- For the inquiry and dialogue dimension, three practices are recommended for improvement: (a) people in organizations should spend time building trust with each other, (b) people should engage other people by asking for their perceptions after stating their view, and (c) people should give each other open and honest feedback.

- For the collaboration and team learning dimension, one dimension lacked significantly, indicating that teams or groups in organizations should be rewarded more often for their achievements as a team or group.

- For the dimension of empowering people toward a collection vision, four recommendations are suggested for improving and supporting the dimension: (a) the organization should align visions across different levels of the work group; (b) an organization should recognize people more often for taking initiative; (c) people should be allowed to choose their work assignments because it empowers
them toward a collective vision; and (d) people should have control over necessary resources to accomplish their work, which helps empower people.

- For the dimension of connecting the organization to its environment, four practices require improvements to strengthen the dimension: (a) the organization should identify ways to help employees balance work and family, (b) employee morale should be taken into consideration when making decisions, (c) people in the organization should be encouraged to get answers from across the organization for solving problems, and (d) people should be encouraged more often to think from a global perspective.

- For the strategic leadership dimension, two practices should be improved to strengthen the dimension: (a) leaders should share up-to-date information more often with employees about competitors, industry trends, and organizational direction and (b) leaders in an organization should more often mentor and coach those they lead.

**Recommendations for Future Study**

The process of collecting data for this study was limited to the dimensions of a learning organization questionnaire, which covered a specific perspective of assessing the learning organization. The instrument was selected due to its use in other sectors and because it is an instrument that has been validated by the authors and other researchers. However, to avoid compromising the author permission to use survey items, the entire survey was utilized without modifications or addendums. The length of the survey
instrument was extensive, and some items were not as applicable or were perceived as unclear by the sample population. Moreover, only specific items from the survey results were used for analysis in this study. The limitation of using only this instrument in its entirety may have been a reason for the low response rates and retention rates of the respondents. It was later determined that other studies, acknowledged by Marsick (2013), the co-author, used a partial version of the DLOQ survey instrument to conduct a study. Because the survey instrument is validated, a suggestion for future studies is to utilize only items for the entire dimension and the value system, which are necessary for data collection and analysis of the study.

Also, the convenience of utilizing a listserv to conduct a survey was the best choice for conducting this survey due to time constraints. However, a response rate of 27 respondents did not reflect the entire CCCS of 112 community colleges. For a more accurate study with a greater response rate, future studies should include ways to identify and maintain a captive audience because, according to Check and Schutt (2011), maintaining a captive audience encourages respondents to provide necessary information for data collection.
APPENDICES
Greetings,

I would like to invite you to participate in a survey I will be conducting as part of the master thesis project in the Higher Educational Leadership Program at California State University, Sacramento. The purpose of this survey is to gain an understanding about the climate in student services through the perceptions of student services professionals regarding current practices that promote organizational change. You were selected to participate because you subscribe to a LISTSERV hosted by the community colleges and are listed as being part of student services. Your personal information and individual responses will be confidential. I hope you will consider this opportunity to provide me with your perception in this study.

This survey, known as the “Dimensions of the Learning Organization Questionnaire (DLOQ),” was developed and validated by Victoria Marsick and Karen Watkins. The DLOQ survey has been tested and used in various fields of study. The survey will take between 12-16 minutes to complete.

Thank you in advance for your time and consideration.

If you have any questions, please feel free to contact me at (831) 236-9636, or by email at GloriaGPerez@csus.edu.

If you wish to participate, please click on the survey link below and you will be prompted to a consent form. After you provide consent, you will be directed to the survey.

To proceed with the survey, click here: “Dimensions of the Learning Organization Questionnaire”

Best regards,
Gloria Perez
APPENDIX B

Consent Form

Consent to Participate in Research

You are invited to participate in a research study that will involve the assessment of current practices in student services that are essential to promote organizational change for delivering services.

My name is Gloria Perez, and I am a graduate student at California State University, Sacramento, in the Higher Education Leadership Program. You were selected as a possible participant in this study because you subscribe to a LISTSERV hosted by the California Community Colleges Chancellor’s Office or the California Community College Technology Center, and are associated to student services.

The purpose of this research is to assess and identify the learning organization status of seven dimensions, identified through Victoria Marsick and Karen Watkins’ *Dimensions of the Learning Organization Questionnaire*, which may or may not be practiced in student services at California Community Colleges. If you decide to participate, you will be asked to complete a questionnaire about your perceptions of student services as a learning organization in your institution. Your participation in this study will last approximately 12 to 16 minutes.

There are some possible minimal risks involved for participants. Risks may include questions that elicit discomfort answering or to which you may prefer not to respond. The survey is voluntary and you have no obligation to answer any questions that you are not inclined to answer. Though you may not personally benefit from participating in this research, it is hoped that the results of the research will benefit community colleges by identifying the status of characteristics that promote learning in an organization.

If you have any questions about the research at any time, please call me at [redacted], or email me at [redacted]. If you have any questions about your rights as a participant in a research project, please call the Office of Research Affairs, California State University, Sacramento, at (916) 278-5674 or email irb@csus.edu.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Measures to ensure your confidentiality include the exclusion of collecting personal
identifying information for the survey, and all responses will be kept safe in a password-protected Qualtrics account. Responses will not be reported individually; instead, all responses will be aggregated for analysis. However, no absolute guarantees can be given for the confidentiality of electronic data. The data obtained will be maintained in a safe, locked location and will be destroyed after a period of three years after the study is completed.

Your participation is entirely voluntary and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

By completing and submitting this survey you indicate that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation at any time without penalty or loss of benefits to which you are otherwise, and that you are not waiving any legal claims, rights, or remedies.

After reading the above information, would you like to continue to participate in this study?
- Yes
- No
APPENDIX C

Survey Instrument

Dimensions of a Learning Organization Questionnaire


Please respond to each of the following statements. Determine the degree to which each of the statements is true or not true of Student Services in your organization. If the item refers to a practice that rarely or never occurs, score it as one [1]. If it is almost always true of your department or workgroup, score the item as six [6]. Fill in your response by marking the appropriate number on the survey.

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<tbody>
<tr>
<td>1. In my organization, people openly discuss mistakes in order to learn from them.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>2. In my organization, people identify skills they need for future work tasks.</td>
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<td>O</td>
<td>O</td>
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<td>3. In my organization, people help each other learn.</td>
<td>O</td>
<td>O</td>
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<td>4. In my organization, people can get money and other resources to support their learning.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>5. In my organization, people are given time to support learning.</td>
<td>O</td>
<td>O</td>
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<td>6. In my organization, people view problems in their work as an opportunity to learn.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>7. In my organization, people are rewarded for learning.</td>
<td>O</td>
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<td>8. In my organization, people give open and honest feedback to each other.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>9. In my organization, people listen to others' views before speaking.</td>
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<td>10. In my organization, people are encouraged to ask &quot;why&quot; regardless of rank.</td>
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<td>11. In my organization, whenever people state their view, they also ask what others think.</td>
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<td>12. In my organization, people treat each other with respect.</td>
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<td>13. In my organization, people spend time building trust with each other.</td>
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<td>14. In my organization, teams/groups have the freedom to adapt their goals as needed.</td>
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<td>15. In my organization, teams/groups treat members as equals, regardless of rank, culture, or other differences.</td>
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<td>16. In my organization, teams/groups focus both on the group's task and on how well the group is working.</td>
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<td>17. In my organization, teams/groups revise their thinking as a result of group discussions or information collected.</td>
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<td>18. In my organization, teams/groups are rewarded for their achievements as a team/group.</td>
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<td>19. In my organization, teams/groups are confident that the organization will act on their recommendations.</td>
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<td>20. My organization uses two-way communication on a regular basis, such as suggestion systems, electronic bulletin boards, or town hall/open meetings.</td>
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<td>21. My organization enables people to get needed information at any time quickly and easily.</td>
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<td>22. My organization maintains an up-to-date database of employee skills.</td>
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<td>23. My organization creates systems to measure gaps between current and expected performance.</td>
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<td>24. My organization makes its lessons learned available to all employees.</td>
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<td>25. My organization measures the results of the time and resources spent on training.</td>
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<td>27. My organization gives people choices on their work assignments.</td>
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<tr>
<td>28. My organization invites people to contribute to the organization's vision.</td>
<td>○</td>
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<td>29. My organization gives people control over the resources they need to accomplish their work.</td>
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<td>30. My organization supports employees who take calculated risks.</td>
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<td>31. My organization builds alignment of visions across different levels and work groups.</td>
<td>○</td>
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<td>32. My organization helps employees balance work and family.</td>
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<td>33. My organization encourages people to think from a global perspective.</td>
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<td>34. My organization encourages everyone to bring the customers' views into the decision making process.</td>
<td>○</td>
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<td>35. My organization considers the impact of decisions on employee morale.</td>
<td>○</td>
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<td>36. My organization works together with the outside community to meet mutual needs.</td>
<td>○</td>
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<td>37. My organization encourages people to get answers from across the organization when solving problems.</td>
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<td>38. In my organization, leaders generally support requests for learning opportunities and training.</td>
<td>○</td>
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<td>39. In my organization, leaders share up-to-date information with employees about competitors, industry trends, and organizational directions.</td>
<td>○</td>
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<td>40. In my organization, leaders empower others to help carry out the organization's vision.</td>
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<td>41. In my organization, leaders mentor and coach those they lead.</td>
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<td>42. In my organization, leaders continually look for opportunities to learn.</td>
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<td>43. In my organization, leaders ensure that the organization's actions are consistent with the values.</td>
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Please reflect on the relative performance of the organization. You will be asked to indicate the extent to which each statement is accurate about the organization’s current performance when compared to the previous year. There are no right or wrong answers. We are interested in your perception of current performance. For example, if the statement is true of your organization, i.e. “yes,” fill in a five [5] on the answer sheet provided. If the statement is not very true of your organization, i.e. “no,” fill in a two [2] on the survey.

<table>
<thead>
<tr>
<th>Question</th>
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<tr>
<td>44. In my organization, return on investment is greater than last year.</td>
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<td>45. In my organization, average productivity per employee is greater than last year.</td>
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<td>46. In my organization, time to market for products and services is less than last year.</td>
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<td>47. In my organization, response time for customer complaints is better than last year.</td>
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<td>48. In my organization, market share is greater than last year.</td>
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<td>49. In my organization, the cost per business transaction is less than last year.</td>
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<td>50. In my organization, customer satisfaction is greater than last year.</td>
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<td>51. In my organization, the number of suggestions implemented is greater than last year.</td>
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<td>52. In my organization, the number of new products or services is greater than last year.</td>
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<td>53. In my organization, the percentage of skilled workers compared to the total workforce is greater than last year.</td>
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<td>54. In my organization, the percentage of total spending devoted to technology and information processing is greater than last year.</td>
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<td>55. In my organization, the number of individuals learning new skills is greater than last year.</td>
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56. What is your primary responsibility?

- General Management
- Operations/Production
- Administration, Logistics, or Financial/Accounting
- Human Resources
- Marketing/Sales
- Technical/R&D

57. What is your role?

- Senior Management
- Middle Management
- Supervisory
- Non-Management Technical/Professional
- Non-Management Hourly Employee

58. What is your educational experience?

- Did not complete high school
- High school graduate
- Certificate or associates degree
- Undergraduate degree
- Graduate degree

59. How many hours per month do you spend on your own time on work related learning?

- 0 hours per month
- 1-10 hours per month
- 11-20 hours per month
- 21-35 hours per month
- 36+ hours per month
60. How many employees are in your organization?

- 0-500
- 501-1,000
- 1,001-10,000
- 10,001-50,000
- Over 50,000

61. Type of business?

- Manufacturing
- Service
- Government
- Other

62. Your organization's annual revenue?

- Under $2 million
- $2-25 million
- $26-99 million
- Over $99 million
APPENDIX D

Survey Invitation Reminder Email

Student Services Professional Invitation Reminder Email—Sent 3/10/2015

Greetings,

As a student services professional, I would appreciate 12-16 minutes of your time to fill out a survey on how your college is structured as a learning organization. Your personal information and individual responses will be kept confidential.

I am conducting a study about current organizational practices, which studies in other sectors identify as essential for facilitating change in organizations—in this case, the implementation of Student Success initiatives.

To proceed with the survey, click here:


Thank you to those of you who have already participated and completed the survey.

Best regards,
Gloria Perez
REFERENCES


