AN ABSTRACT OF THE DISSERTATION OF

Lyn Eisenhour for the degree of Doctor in Education presented on November 30, 2020

Title: Community College Faculty Perceptions of Climate for Instructional Improvement

Abstract approved: _____
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The purpose of this study was to examine the perceptions of faculty in Washington State regarding climate for instructional improvement. The Survey of Climate for Instructional Improvement (SCII) was administered to faculty at a community college in Washington State. Through exploratory factor analysis, four factors emerged which aligned with four antecedents of change-oriented organizational citizenship behavior (OCB) proposed by López-Domínguez et al. Responses were compared using t-tests, analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA) for faculty status (full-time and part-time), academic division, gender identity, race/ethnicity, and years of teaching experience.

The primary finding of this study was the theoretical alignment of the four factors with the four antecedents of change-oriented OCB: Developmental Leadership, Support for Innovation, Resource Availability, and Supportive Leadership. This study also found that full-time faculty reported a lower perception of Resource Availability than part-time faculty. Additionally, faculty with 8-20 years of teaching experience reported lower perceptions of climate for instructional improvement than faculty with 0-7 and 21 or more years of experience.

Finally, the mean perceptions of climate for instructional improvement were consistently higher for non-white faculty than white faculty.

This study's findings have implications for policy and practice, including the importance of support for department-level leadership and the possibility of using the four factors to improve climate for instructional improvement through evaluation, assessment, and program review.

Community College Faculty Perceptions of Climate for Instructional Improvement

by
Lyn Eisenhour

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APPROVED:

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Dean of the Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

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Lyn Eisenhour, Author

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

Community College Faculty Perceptions of Climate for Instructional Improvement

Chapter 1: Introduction

Community colleges serve approximately 30% of the United States' undergraduate students, with nearly six million students enrolling in community colleges each fall (Dougherty, Lahr, & Morest, 2017). With a broad mission that includes transfer education, workforce preparation, and basic skills education, these institutions are committed to providing open access to education for everyone. However, access has not always led to success. Community colleges have come under scrutiny by researchers, funders, and other stakeholders for poor rates of student success. Of students who start at a community college with the intention of transferring to a four-year university, only 14% transfer and complete a bachelor's degree within six years (Wyner, Deane, Jenkins, & Fink, 2016). Of students who place into developmental (i.e., pre-college-level) coursework, only a fraction (as low as 11% for those who placed into the lowest level of developmental math, for example) complete the developmental course sequence and move into college-level work (Ganga, Mazzariello, & Edgecombe, 2018). Overall, of students entering community college, up to 45% failed to complete any credential within six years (Dougherty et al., 2017).

Calls for colleges to take action to improve student success have emerged. In 2012, the American Association of Community Colleges (AACC) published *Reclaiming the American Dream: Community Colleges and the Nation's Future*. The report summarized the challenges and opportunities facing community colleges in the 21st century. College leaders were called upon to transform institutions in order to meet the needs of students and the country. In the last two decades, a number of ways to improve community college outcomes have been identified and proposed. These include redesigning developmental education sequences, contextualizing

instruction, improving the use of technology, implementing student success courses, addressing

equity gaps, introducing undergraduate research opportunities, and more (Boggs & McPhail,

2016; Center for Community College Student Engagement [CCCSE], 2014; Dougherty et al.,

2017; Hatch, Crisp, & Wesley, 2016). One major push for transformation has involved the

Guided Pathways movement, which calls upon colleges to clarify and streamline their degree

pathways while providing students with the support structures and attention that they need to be

successful (Bailey, Jaggars, & Jenkins, 2015).

Community colleges undergo frequent change as administrators, faculty, and staff

attempt to support student success as well as access to higher education (Cohen, Brawer, &

Kisker, 2014). Large-scale initiatives like those described above require organizational change

and involvement at all levels of the institution. Nearly all student success initiatives are directly

or indirectly connected to classroom instruction. The types of broad-scale change being

implemented by community colleges to improve student success have significant impact on

classroom practice and therefore cannot be successfully implemented without faculty

involvement and their commitment to instructional improvement (Bailey et al., 2015; CCCSE,

2014).

At the same time, institutions of higher education, and especially community colleges,

increasingly rely on part-time faculty to teach their students. From 1995 to 2015, the percentage

of college faculty who are part-time increased from 41% to 48% (United States Department of

Education [US DoE], 2017). At community colleges, part-time faculty are now at least 58% of

all faculty, and are responsible for the learning experiences of more than half of community

college students (CCCSE, 2014; Government Accountability Office [GAO], 2017).

Because faculty are key stakeholders in successful higher education change initiatives, the tendency of community colleges to rely on part-time faculty can impede an organization's ability to involve faculty fully and successfully in reform efforts (Jenkins, 2011). Part-time faculty are frequently excluded from shared governance structures and college decision-making and often lack the levels of respect and support afforded to their full-time colleagues (Gappa, Austin, & Trice, 2007; GAO, 2017). In turn, this may reinforce part-time faculty members' feeling of disconnect and limit their ability to help students be successful (Lee, 2015). Additionally, part-time faculty are often less aware of and less involved in large-scale reforms. For example, in the most recent Community College Faculty Survey of Student Engagement (CCCSE, 2019), when asked how much they knew about guided pathways, 32.8% of part-time faculty responded "none" compared to only 12.2% of full-time faculty. When asked if their college was in the process of implementing guided pathways, 60.9% of part-time faculty responded "I don't know" compared to 30.2% of full-time faculty (CCCSE, 2019).

Community colleges must address the role of part-time faculty in organizational change and instructional quality in order to empower part-time faculty to be actively involved in the organization and its change efforts, and to implement instruction-related organizational change more successfully. Additionally, college administrators, faculty, and staff must create an institutional climate that supports and promotes instructional improvement.

This chapter states the study problem and purpose, identifies the theoretical and conceptual frameworks that will be used in the study, and states the research questions of the study. Then, the implications of the study for policy and practice are described, and definitions for key terms are provided.

Problem and Purpose

Effective change management involves all stakeholders having a voice, and faculty comprise a critical stakeholder group within community colleges, especially if the change initiative under consideration involves teaching and learning practices (Boggs & McPhail, 2016). Therefore, within an institution of higher education, any broad-scale change requires faculty involvement in order to succeed. Additionally, instruction-related change requires a climate conducive to instructional improvement.

Several studies have identified the importance of accounting for the context, culture, and policies of institutions of higher education in order to effectively facilitate change (e.g., Boyce, 2003; Jenkins, Lahr, & Fink, 2017; Kezar & Eckel, 2002; Stich, 2008). At the same time, studies have found that stakeholders' perceptions of and engagement with the change are important factors in the success of the change (e.g., Barnett, 2011; Haviland, 2014; Messer, 2006; Van Wagoner, 2004). Within institutions of higher education, faculty comprise a key group of stakeholders, and a number of studies have found that initiatives that involve teaching and learning require the engagement of and participation by faculty (e.g., Goldfien & Badway, 2015; Haviland, 2014; Moore, 2015; Owen & Demb, 2004; Vertin, 2001).

Community colleges rely on part-time faculty to teach the majority of classes; however, part-time faculty often have limited access to support, professional development, and resources (CCCSE, 2014). At the same time, part-time faculty may be more likely to teach evening, weekend, and developmental courses, meaning that they may have greater interactions with more vulnerable student populations (Ran & Sanders, 2020). Data show that on the whole, full-time faculty are more likely to use high-impact educational practices that are more likely to engage students (CCCSE, 2014). One set of studies has examined the role of part-time faculty within institutions of higher education, finding that the degree of inclusion and respect for part-time

faculty may impact their integration into the culture of the college or department (Kezar, 2013a, 2013b; Kezar & Sam, 2013, 2014; Meixner, Kruck, & Madden, 2010; Wagoner, Metcalfe, & Olaore, 2005). Further, some studies have found a negative relationship between part-time faculty and student success outcomes (e.g., Baldwin & Wawrzynski, 2011; Ehrenberg & Zhang, 2005; Jacoby, 2006; Jaeger & Eagan, 2009). It is notable, however, that these studies did not examine the climate and context of institutions or the working conditions of part-time faculty.

Although part-time faculty represent a sizeable constituency, only a small number of studies have looked at the role of part-time faculty in higher education change initiatives, and two of those focused on institutional policies and practices to support part-time faculty rather than the perceptions of the faculty themselves (i.e., Kezar, 2013b; Kezar & Sam, 2013). Three additional studies, all of them case studies, examined the experiences of part-time faculty in a change initiative at a community college (Coulter, 2016; Gerhard & Burn, 2014; Jolley, Cross, & Bryant, 2014). A quantitative study to examine the perceptions of part-time faculty at a community college involved in instructional improvement will therefore address a gap in the literature.

This study addresses that gap by examining the perceptions of community college faculty in Washington State regarding climate for instructional improvement. Full-time and part-time faculty perceptions will be examined using the Survey of Climate for Instructional Improvement ([SCII]; Walter, Beach, Henderson, & Williams, 2015, 2018).

Research Questions

In order to assess the perceptions of community college faculty, both full-time and part-time, regarding climate for instructional change, the following research questions will be addressed:

1. Are the constructs of the SCII (i.e., leadership, collegiality, resources, organizational support, and respect for teaching) reliable and valid for full- and part-time community college faculty in Washington State?

Because the SCII has not yet been used at a community college, the constructs need to be tested for the community college faculty population.

2. What are the perceptions of climate for teaching improvement (i.e., leadership, collegiality, resources, organizational support, and respect for teaching) among full-time and part-time faculty at a community college in Washington State?

   a. What are the perceptions of climate for teaching improvement among faculty in the eight academic divisions (Aerospace and Advanced Manufacturing Careers, Arts and Learning Resources, Business and Applied Technology, Communication and Social Sciences, Health Sciences and Public Safety, Transitional Studies, Math and Sciences, and Student Development) of the community college?

   b. What are the perceptions of climate for teaching improvement among faculty by gender (male, female, trans or non-cisgender)?

   c. What are the perceptions of climate for teaching improvement among faculty by race/ethnicity (Asian, Black, Hispanic or Latino/a, Native American or Alaskan Native, Native Hawaiian or Pacific Islander, White, Multi-ethnic)?

   d. What are the perceptions of climate for teaching improvement among faculty by years of teaching experience?

Walter et al. (2015, 2018) used Gappa et al.'s (2007) framework of essential elements of the faculty work experience to develop the SCII and measure climate for instructional improvement.

However, their studies have not focused on the experience of part-time faculty specifically, nor have any community college faculty been included in their samples.

3. Are there significant mean differences in perceptions of climate for instructional change (as measured by leadership, collegiality, resources, organizational support, and respect for teaching) among full- and part-time community college faculty in Washington State?

    a. Are there significant mean differences in perceptions of leadership for full-time and part-time faculty?

    b. Are there significant mean differences in perceptions of collegiality for full-time and part-time faculty?

    c. Are there significant mean differences in perceptions of resources for full-time and part-time faculty?

    d. Are there significant mean differences in perceptions of organizational support for full-time and part-time faculty?

    e. Are there significant mean differences in perceptions of respect for teaching for full-time and part-time faculty?

Comparing full-time faculty and part-time faculty responses is critical because part-time faculty typically have less access to the support and professional development opportunities afforded full-time faculty, and they are less likely to use high-impact instructional practices; however, they make up 58% of all community college faculty (CCCSE, 2014). Additionally, qualitative findings suggest that the degree to which part-time faculty are included and respected within a college or department affects their integration (Kezar, 2013a, 2013b; Kezar & Sam, 2013, 2014; Meixner et al., 2010; Wagoner et al., 2005).

Significance

This study is expected to have significance and implications for research, practice, and policy. Broad-scale organizational change efforts at community colleges must include faculty. In my opinion, the faculty role in leadership of community colleges is as important as that of executives and administrators. The types of broad-scale change that colleges are grappling with at this point in time, such as Guided Pathways implementation, developmental education reform, and improving student completion rates all have significant impact on classroom practice and cannot occur without faculty involvement and commitment to instructional quality and improvement (AACC, 2012; Boggs & McPhail, 2016; CCCSE, 2014; Jenkins, 2011; Jenkins et al., 2017).

Existing studies have not utilized a common theoretical framework or consistent variables for examining the experiences of part-time faculty in organizational change. However, an instrument has been developed to assess factors of climate for instructional improvement which are based on Gappa et al.'s (2007) essential elements framework. The SCII, developed by Walter et al. (2015, 2018), can be adopted to examine the perceptions and experiences of community college faculty regarding climate for instructional improvement. This study contributes to the body of research by providing additional validation data with a new population, community college faculty, for the SCII instrument based on Gappa et al.'s (2007) framework.

In addition to contributing to the literature and filling a gap in existing research, a study on the climate for instructional improvement that compares full-time and part-time faculty responses has importance for both practice and policy. As colleges have come to rely increasingly on part-time faculty to teach classes, college administrators have struggled with whether and how to involve faculty in organizational reform. However, since part-time faculty

are now the majority of faculty in community colleges, and teach the majority of students (CCCSE, 2014), they cannot be left out of institutional reform efforts. Colleges must find ways to include part-time faculty in organizational change in order for that change to be successful and long-lasting. At the least, colleges need to provide opportunities for involvement and related professional development for part-time faculty (Bailey et al., 2015; CCCSE, 2014; Lee, 2015). Findings from this study are expected to inform practice by providing college administrators and department chairs with data on the factors of climate that facilitate instructional change at community colleges. Administrators could use these findings to identify ways to improve and enhance climate in order to promote instructional changes that facilitate student success.

This study also has implications for policy. As many institutional reform efforts are initially presented as unfunded mandates from the state or federal level, colleges struggle to include all faculty fairly in those efforts when they cannot equitably compensate all ranks of faculty, particularly part-time faculty, for their work. Policy makers embarking on statewide change efforts may consider finding and providing funding for colleges that can be used to promote greater involvement of part-time faculty. The recommendations of the AACC (2012) for reimagining community colleges include incentivizing change through public and private investment. To realize fully the broad-scale changes called for by policy-makers, incentives need to include a focus on part-time faculty engagement and involvement in instructional change; policy makers can have a role in improving institutional climate for instructional change. Findings from this study can be used to inform policy by identifying the factors of climate which contribute to instructional improvement and can be influenced or enhanced by policy changes. Policy makers can use the findings from this study to target resources in ways that support factors of climate that promote instructional change.

Definitions

This study uses the following terms and definitions:

1. Climate for instructional improvement. This study uses the term "climate for instructional improvement" as defined by Walter et al. (2018) in their development of the SCII. Climate for instructional improvement includes "perceptions of current organizational elements (e.g., patterns of relationships, atmosphere, organizational structures) that have the potential to influence attitudes and behaviors regarding…making changes in instruction with the goal of achieving the best possible learning outcomes" (p. 3).

2. Community colleges. Community colleges have been defined as not-for-profit United States higher education institutions that are accredited to offer associate degrees (Cohen et al., 2014; Dougherty et al., 2017). However, this definition excludes the community colleges in a growing number of states that have been authorized to confer bachelor's degrees (Dougherty et al., 2017). Because Washington State is among those that allows community colleges to award bachelor's degrees, the term "community college" in this study includes those institutions.

3. High-impact instructional practices. This study uses the term "high-impact instructional practices" as described by Kuh (2008). These teaching and learning practices are those that have been empirically tested and shown to benefit postsecondary students of different backgrounds by increasing student retention and engagement.

4. Part-time faculty. This study uses the term "part-time faculty" to refer to faculty who lack ongoing contracts and who have no guarantee of employment at the same institution for more than an academic term, or at most a year. Kezar and Sam (2010) noted the difficulty in selecting and using appropriate terminology to refer to non-tenured or non-tenure-track

faculty, with the existence of over 50 terms in the literature. Gappa et al. (2007) used the term part-time faculty to refer to faculty with fixed-term, rather than ongoing, appointments. Additionally, the term part-time faculty is used throughout the Washington State community and technical college system to refer to faculty who are not full-time, whereas full-time faculty in the system are typically tenured or tenure-track (State Board of Community and Technical Colleges [SBCTC], 2017). For these reasons as well as for consistency, this study will use the term part-time faculty; however, it is understood that this terminology is imperfect as a means of referring to a heterogeneous group of faculty employed under a variety of types of contract. When authors of individual studies examined in the subsequent review of the literature used different terminology, such as contingent, that terminology is retained in the description of the study.

5. Organizational climate. Schneider, Ehrhart, and Macey (2013) defined organizational climate as "the shared perceptions of and the meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected" (p. 362). Frequently, the study of organizational climate examines climate for a specific process, such as organizational change, and often includes an examination of subunits of the organization in addition to the entire organizational structure (Schneider et al., 2013). This is distinct from the term "campus climate" which is used frequently and colloquially but lacks a commonly accepted and shared definition (Hart and Fellabaum, 2008).

6. Shared governance. The term "shared governance" is used in this study to refer to the participatory governance structure common in higher education. Community college leadership is partially distributed through structures of shared internal governance. Boggs

and McPhail (2016) described several structures of shared governance within institutions of higher education. For example, institutional committees and other working groups enable those who will have to carry out decisions and policies to have a voice in shaping them. Participatory governance committees provide a structure for advising executive leadership and making recommendations related to policies and procedures. Groups involved in participatory governance include faculty senates and related groups, search committees, collective bargaining units, and other institutional committees and task forces.

The following chapter reviews the literature related to the role of faculty in organizational change and climate for instructional improvement.

Chapter 2: Review of the Literature

The purpose of conducting this review of the literature was to synthesize the body of research on faculty and organizational change in higher education, the role of part-time faculty in community colleges and community college change initiatives, and the importance of institutional climate for instructional change. The second purpose of this review was to identify gaps and limitations in the existing literature. The review was guided by the research questions framing this study, which assessed the constructs of the SCII for reliability in the community college context, examined faculty perceptions of climate for instructional change, and assessed whether there are differences in those perceptions between full-time and part-time faculty.

This chapter, then, examines the body of literature on organizational change in higher education and the existing literature on part-time and contingent faculty in community colleges and their role in change. Moving from a look at change in higher education generally to the role and perceptions of faculty stakeholders in instruction-related change initiatives, this chapter analyzes the thus-far largely unexamined role of part-time faculty in instruction-related initiatives. Additionally, literature on the development of the SCII instrument and its relevance to this study is included in this review.

Approach to the Review of the Literature

This review of the literature was primarily conducted through the Oregon State University library and Google Scholar. Within the Oregon State University online library portal, the Summit Catalog and databases were used, including Academic Search Premier/EBSCOhost. Books, dissertations, and peer-reviewed journal articles were included in the review. In addition to catalog, database, and Google Scholar searches, the reference lists of the found articles, books, and dissertations were used as a further source of relevant literature. The ProQuest Dissertations

database was also accessed through the University of Washington library system's online portal. Search terms used in online and database searches included higher education organizational change, community college organizational change, institutional climate, higher education faculty, community college faculty, and part-time or adjunct or non-tenure-track faculty. Those terms were also paired with organizational citizenship behavior (López-Domínguez, Enache, Sallan, and Simo, 2013) and the essential elements of faculty work (Gappa et al., 2007) to identify research relating those frameworks to the concepts being studied.

Criteria for inclusion in this literature review were based on the work of Creswell (2014) and that of Joyner, Rouse, and Glatthorn (2013). Criteria included whether the work was peer reviewed and from a reputable scholarly source, whether it was directly relevant to the concepts articulated in the research questions and study purpose, whether it was recent (emphasizing work done in the last 15 years), and whether it was a primary source.

This review is organized according to the themes that emerged while reviewing and synthesizing the available research related to the topic of part-time faculty inclusion in organizational change. First, organizational change in higher education institutions, including community colleges, is reviewed. Then, the role of faculty in such change is examined, followed by the literature on part-time faculty, especially as pertaining to organizational and instructional change within community colleges. Next, the review includes an overview of the theoretical frameworks that have been used in studies examining organizational change, institutional climate, and faculty. Finally, the available literature on the role of institutional climate and the development of the SCII is reviewed.

Organizational Change in Institutions of Higher Education

Because of higher education's distinctive organizational characteristics, such as shared governance, the process of change can look different in institutions of higher education than in other types of organizations. This section examines the institutional factors that have been shown to contribute to successful change in higher education, with a close look at community colleges, and the role of faculty stakeholder groups in higher education change.

Institutional Factors and Organizational Change

The literature on organizational change in higher education has identified the importance of taking into account the context, culture, and policies of an institution in order to facilitate effective change (Boyce, 2003; Kezar & Eckel, 2002; Stich, 2008). Also, the perceptions and engagement of the stakeholders impacted by the change have been shown to be important factors in successful organizational change in higher education (Barnett, 2011; Haviland, 2014; Messer, 2006; Van Wagoner, 2004).

In a multi-site case study, Kezar and Eckel (2002) found that institutional culture was related to change implementation. Selecting culturally appropriate strategies and examining different layers of organizational culture supported the change process; conversely, ignoring institutional culture impeded change. At each institution included in the study, two universities and one community college, there was a relationship between organizational culture and the change process. Those findings were supported by Boyce (2003), whose literature review of change in higher education identified practices in the literature that contributed to sustained higher education change: inquiry and dialogue, action learning, and embedding change in the organization's systems and culture.

Kezar and Eckel's (2002) findings were further supported by studies by Van Wagoner (2004) and Stich (2008). Van Wagoner (2004) examined how systems and culture are embedded

in an institution's stated mission and goals. The researcher conducted a quantitative survey-based

study of faculty, professional staff, and administrators at 12 community colleges in the Colorado

Community College System and found that the better participants understood the mission and

goals of the institution, the more likely they were to have a positive perception of change. Van

Wagoner (2004) also found that the perception of change was individual, not influenced by

group membership: faculty, staff, and administrators showed very few statistically significant

differences in response. The exception was that faculty were more likely than administrators to

perceive a greater extent of change occurring.

Stich (2008) also addressed the importance of institutional culture to change

implementation in a meta-ethnographic study of change at four community colleges. The four

case studies examined by Stich focused on top-down change implementation and the perceptions

of those implementing change, and the researcher concluded that the systems and culture of

higher education institutions need to be taken into account in order for change to be successfully

implemented.

Like Van Wagoner (2004) and Stich (2008), Barnett (2011) examined the perceptions of

stakeholders in a higher education change event; however, Barnett's case study focused on

university administrators, consultants, and members of the state governing agency. Focusing on

the fact that organizational change strategies emphasize creating and communicating a shared

vision, but organizations of higher education are complex systems with a variety of stakeholders,

the researcher found that members of the organization constructed their own vision of change

based on their individual and system identities.

In contrast to Van Wagoner's (2004) findings, the participants in Barnett's (2011) study

differed by group in their perceptions of change, with the state agents demonstrating a more

global vision of change and the university administrators focused on change at the local level. Shadle, Marker, and Earl (2017) collected data during department meetings in which STEM faculty discussed a proposed change to transform the culture of teaching and learning at the university. The authors identified both barriers to and drivers of change, but also noted that those reported barriers and drivers varied by department and could not be assumed to be institution-wide.

Because of the need to account for institution-specific culture when implementing change, scaling that change beyond an institution can be challenging. Kezar (2011) identified issues with the concept of scaling up change, noting that the concept of scaling up comes from policy and development fields and assumes that successful innovation occurs independently of context and setting. The researcher noted that instead of being independent of setting, reforms in education are context-dependent, and meaningful changes typically emerge from communities of practice within a specific setting. Kezar argued that a form of scaling up is possible in higher education, and she identified three key mechanisms by which meaningful change occurs: discussion and deliberation, networks, and external support and incentives. Deliberation and discussion allow advocates and leaders of the change to exchange and refine their ideas while creating space for local practitioners to brainstorm strategies and talk about challenges in their own institution. Networks connect individual agents of change with each other and can provide support and external incentives for change. External support and incentives facilitate the distribution of change to participants who need more external motivation to change, provides legitimacy for the change, and support the sustainability of the change by making it part of a larger system of accountability.

A related multi-site case study conducted by Kezar, Gallant, and Lester (2011) identified a number of strategies described in the literature that were used by faculty and staff to stimulate change on university and college campuses, supporting the context-specific recommendations identified by Kezar (2011). Identified strategies included creating an ideology or vision, raising awareness of the problem, empowering others to act in spite of opposition, and building relationships with others interested in the change. Specific strategies differed according to institutional culture and context, but overall the researchers found that faculty and staff were able to create change on campus from the bottom up. Corbo, Reinholz, Dancy, Deetz, and Finkelstein (2015) further addressed the culture and context of higher education and the need to work across all levels of the institution to effect change. Building on the work of Kezar, their framework suggested the importance of integrating multiple perspectives of change across the three levels of faculty, department, and administration.

Kezar (2018) continued to develop and expand on these ideas in *How Colleges Change*. Arguing that creating deep change in higher education settings is especially challenging and difficult, the author advocated for the intentional use of different theories of change, the use of sensemaking and organizational learning, and the recognition of the importance of different types of leadership and leadership strategies in change implementation. Kezar also addressed the "ethics of change," emphasizing that change processes are not value- and interest-neutral. Stakeholder resistance or cynicism may be a consequence of ignoring ethical considerations related to change, including lack of transparency and lack of stakeholder participation and input.

This section described the importance of accounting for institutional culture and context, as well as the engagement of stakeholder groups, in successful change initiatives in higher education. However, not all of the studies included community colleges, which have their own

unique context and challenges. The following subsection describes additional studies specific to community colleges and change.

Community Colleges and the Pressure to Change

While all types of higher education institutions face increasing organizational change, community colleges are under pressure from a number of stakeholders to implement reforms to improve student outcomes (AACC, 2012; Cohen et al., 2014). As described in Chapter One, these pressures currently manifest in initiatives such as Guided Pathways, developmental education redesign, advising reform, and the implementation of high-impact educational practices (Bailey et al., 2015; Boggs & McPhail, 2016; CCCSE, 2014). These recent pressures succeed earlier community college change initiatives.

A handful of studies conducted since 2000 indicate that faculty in community colleges have perceived change as an ongoing concern for nearly two decades. Zmetana (2002) conducted a phenomenological study with sixteen liberal arts faculty and identified several themes among community college faculty members' perceptions of change. The researcher did not specify whether the faculty participants were full- or part-time; however, most of the participants had held leadership roles such as department chair or committee chair and could be more likely to hold full-time faculty positions. Faculty viewed change as a constant while approaching change initiatives with cynicism. Faculty saw community colleges as a unique type of institution, and they felt overcommitted and overwhelmed while perceiving that college administrators misunderstood faculty work and ignored faculty voices. The researcher noted that community college faculty need to be involved in initiatives early on with open communication, time for collegiality, and good leadership.

Other studies have also called attention to the challenges of implementing change within community colleges. Van Wagoner's (2004) study and Stich's (2008) study, both described in the previous section, were conducted in the community college setting and called attention to the importance of institutional systems and culture. Additionally, Goldfien and Badway's (2015) case study looked at effective curricular reform in four two-year colleges and found that both bottom-up and top-down leadership are necessary for reform to take place. Administrative support for reform, funding, and faculty leadership were all found to be necessary, but none were sufficient on their own. Involvement of multiple stakeholders, and the interactions between administrator and faculty stakeholders, were shown to impact the outcomes of organizational change in higher education. In another community college case study, Willcox, Liguori, and Postle (2018) similarly found that the inclusion of key faculty and staff in an institution-wide effort to increase graduation rates led to a broader feeling of ownership of the initiative and contributed to the initiative's success.

The studies described in this subsection highlight the importance of understanding and accounting for the community college context and institution-specific factors related to successful organizational change. The following subsection focuses on instruction-related change in higher education and the key role that faculty stakeholders play in that change.

Faculty Members' Role in Instruction-Related Community College Change

A key group of stakeholders in institutions of higher education is the faculty, and department- or institution-wide initiatives that involve teaching and learning require the engagement of and participation by faculty (Goldfien & Badway, 2015; Haviland, 2014; Moore, 2015; Owen & Demb, 2004; Vertin, 2001). Additionally, researchers have examined bottom-up change proposed by faculty and the need for institutional support for change (Goldfien &

Badway, 2015; Haviland, 2014; Kezar et al., 2011). The shared governance structures found throughout higher education create a relationship between administrators and faculty unlike those found between employee groups in other types of organizations (Cohen & Kisker, 2010). Because of this unique structure, combined with the relative independence of faculty work, faculty can shape the ability of an institution to implement instruction-related changes successfully. Curriculum and instruction are typically considered to be within the purview of faculty, not administration; therefore, changes to those areas typically require faculty support (Cohen et al., 2014). However, the shared governance structure typically assumes participation of full-time faculty, not part-time faculty, and most studies describing instruction-related change in higher education have focused on full-time faculty. This section describes the body of literature on the role of faculty in implementing instruction-related change in higher education.

Empirical findings suggest that factors such as level of engagement, institutional support for change, and administrators' approaches toward instruction-related organizational change impact how faculty respond to such changes. For example, Vertin (2001) examined the perceptions of administrators and full-time faculty members at a two-year college and found that their differing perceptions of the change and lack of shared vision were associated with the failure of an attempt at a broad redesign of college practices. Harbour and Nagy (2005) also studied the perceptions of administrators and faculty leaders in their multi-site case study of community colleges in North Carolina responding to a legislatively mandated student performance initiative. The researchers found that faculty leaders at three of the four colleges in the study perceived a disconnect between the initiative and classroom instruction, posing a problem for administrators charged with improving student performance and outcomes. The researchers did not specify the rank of the faculty participants in their study, but the faculty they

spoke with held leadership roles such as faculty senate chair, indicating that they were likely to be full-time.

A qualitative study by Long (2008) supported that finding in an examination of full-time faculty and administration responses to the implementation of student learning outcomes at one community college. Long found that although the implementation was successful, faculty viewed implementation through a much more local lens of day-to-day teaching and learning, and they saw leadership of the initiative as coming from deans, mid-level managers, and themselves. In contrast, administrators focused on the role of top-level leadership and broad engagement across the institution.

Similarly, Moore's (2015) phenomenological study examined how full-time faculty at a community college perceived an externally mandated organizational change, a push to improve student credential attainment and graduation rates. The study found that faculty constructed the change as non-legitimate and owned by others, which negatively affected their willingness to participate in the change. Qualitative findings also suggested that an organization needs to acknowledge the social construction of a change in order to create a shared vision around the change. Faculty members are unlikely to support an organizational change that they perceive as not legitimate and not co-owned by them.

Research has shown that increased participation and engagement of stakeholders is associated with successful organizational change. For instance, Messer (2006) surveyed full-time faculty and staff at a large Oklahoma community college and conducted a path analysis to examine the factors associated with successful organizational change within community colleges. The researcher found that participation among full-time faculty and staff was negatively correlated with resistance to change. Other studies have examined bottom-up, faculty-

generated change. For example, a case study by Owen and Demb (2004) found that faculty at one community college needed institutional support for broad changes, and that institutional leadership enabled change by establishing incentives for faculty. The researchers interviewed administrators and faculty regarding use of technology in instruction; however, they did not state the employment status of the faculty participants, so it is unclear whether faculty participants were full-time or part-time. The researchers suggested that traditional models of faculty workload do not account for new types of work, such as course redesign, related to large-scale changes such as adoption of instructional technologies.

The importance of including faculty in change efforts was supported by Haviland (2014) in a literature review that examined college-wide assessment efforts. The researchers argued that developing approaches to assessment processes that are faculty-inclusive and more meaningful to faculty work could produce better implementation results. This finding was further supported by Shadle et al. (2017) in their evaluation of factors that drive change, examining drivers of faculty adoption of evidence-based practices in Science, Technology, Math, and Engineering (STEM). The researchers examined faculty perceptions of a proposed new vision for teaching and learning and identified four drivers of change from faculty responses: the change expands on current practice, the change encourages collaboration and shared objectives, the change improves teaching and assessment, and the change aligned with existing resources.

Section Summary

The available literature on higher education organizational change indicates that effective change must account for the context, culture, and policies of the institution as well as the engagement and perceptions of stakeholders. However, the majority of studies that have been conducted in this area are qualitative, primarily case studies, indicating a need for quantitative

work on the topic. The exceptions, Van Wagoner's (2004) survey and Messer's (2006) path analysis study, were both conducted over a decade ago, prior to the emergence of the modern student success agenda. Additionally, most of these studies focused on full-time faculty. Therefore, a contemporary quantitative study that examines part-time faculty engagement and perceptions as well as the context of community colleges will address a gap in the literature on higher education organizational change.

The next section will examine the role of part-time faculty in the community college context.

Community Colleges, Change, and Part-Time Faculty

The studies examined in the previous sections of this review of the literature did not specifically address the role of part-time faculty in community college organizational change; however, part-time faculty comprise a majority of community college faculty (CCCSE, 2014). According to a recent report from the Government Accountability Office, contingent faculty now hold 83.5% of instructional positions at two-year institutions, and 15% of part-time contingent faculty are somewhat or very dissatisfied with their employment overall (GAO, 2017). Contingent faculty have expressed concerns about a lack of voice in decision-making and exclusion from shared governance as well as a lack of support from their institutions (GAO, 2017). Gappa et al. (2007) advocated for equity for part-time faculty in the essential elements of faculty work and argued that respect for all faculty types is essential to the healthy functioning of an academic environment.

This section examines the research literature on the reliance on part-time faculty in higher education, the relationship of part-time faculty to student outcomes, and the role of part-time faculty in community college change efforts.

The Growing Reliance on Part-Time Faculty in Higher Education

Over two decades ago, Gappa and Leslie (1993) examined the growing population of part-time faculty at colleges and universities, observing that faculty were becoming separated into a high-caste group of tenured full-time faculty and a low-caste group of part-time faculty. The researchers explored the nuances of this bifurcation and the myriad reasons for institutions to employ part-time faculty and the different types of part-time faculty, ranging from those who are part-time by choice and preference to those who desire a full-time academic career. The researchers recommended three key practices to promote fairness and equity in part-time faculty employment: developing sound policies and practices that cover the same elements for all faculty types, recognizing the critical role of department chairs in implementing those policies consistently and fairly, and focusing on treating part-time faculty as valued members of the faculty.

More than twenty years after Gappa and Leslie's (1993) study, the issues around the increasing dependence of higher education on part-time faculty have not gone away. Kezar and Maxey (2016) argued that current models of faculty work, including the increasing use of non-tenure-track and part-time faculty positions, have both ethical and functional shortcomings. Faculty are critical to improving student outcomes and achieving institutional mission, they asserted, but organizational factors can limit those positive impacts. The researchers critiqued the "adjunct model" of higher education for poor working conditions, limited professional development opportunities, inequity, lack of evaluation, lack of job security, and decreased professionalization of the faculty role.

Part-Time Faculty and Student Outcomes

Several researchers have attempted to examine whether the increasing use of part-time faculty has impacted institutional or student outcomes. Banachowski's (1996) review of the literature on part-time faculty in community colleges found mixed results on the use of part-time faculty. Some studies found that part-time faculty demonstrated an overreliance on traditional teaching methods compared to full-time faculty, while others found almost no difference between groups. Banachowski also identified some studies with findings of differences in student outcomes, but those were limited, and many studies found no difference in the quality of instruction between full-time and part-time faculty.

Since Banachowski's (1996) review, more recent empirical findings have pointed to a possible negative relationship between part-time faculty and student outcomes. However, these studies have not addressed institutional context and climate or differences in working conditions for part-time faculty compared to full-time faculty. Some researchers have focused on institution-level outcomes. Ehrenberg and Zhang (2005) used national datasets to compare graduation rates at four-year institutions and found that increased use of part-time faculty was associated with reduced graduation rates, especially at masters'-level institutions, where a 10% increase in percentage of part-time faculty was associated with a three percent reduction in graduation rate. Jacoby (2006) found a similar relationship at community colleges, where increases in the ratio of part-time faculty to full-time faculty had a significant negative relationship with graduation rates. Jaeger and Eagan (2009) also found a significant, yet modest, negative relationship between student exposure to part-time faculty and associate degree completion. However, Eagan and Jaeger's (2009) companion study found no significant relationship with transfer likelihood for the institutional proportion of faculty who were part-time or the proportion of instruction performed by part-time faculty.

Other researchers have examined the relationship of part-time faculty to instructional techniques and student learning outcomes. Umbach (2008) used data from the 2001 Higher Education Research Institute (HERI) Faculty Survey and found that part-time faculty across institution types engaged less in active learning techniques than full-time faculty and were less likely to show commitment to teaching as measured by time spent preparing for classes, time spent advising students, and participation in teaching workshops. Several subsequent studies have looked at part-time faculty and student outcomes in the university context. For example, Bettinger and Long (2010) used regression techniques and found that taking a class with part-time faculty increased the likelihood of students taking subsequent courses in the subject area, especially in professional fields of study. In this study the researchers proposed that in those professional fields, most part-time faculty were working full-time in the field and thus bringing relevant, engaging material into the university classroom. Korgan (2016) used data from the 2010-2011 HERI Faculty Survey and found that part-time faculty scored higher than their tenured and tenure-track counterparts on three measures of effectiveness: using techniques to foster students' habits of mind for lifelong learning, using learner-centered assessments, and using student-centered pedagogy.

Other findings have been less positive. Baldwin and Wawrzynski (2011) used data from the 2004 National Study of Postsecondary Faculty to examine the teaching practices of part-time faculty in universities. The researchers found that part-time contingent faculty were less likely to use learning-centered teaching strategies, such as authentic assessment. In another study indicating a negative relationship between part-time faculty and student success at universities, Mueller, Mandernach, and Sanderson (2013) compared student outcomes in an online University Foundations course and found that students taking the course with full-time faculty were more

likely to successfully complete the course, less likely to withdraw, and more likely to enroll in a

subsequent course than students taking an identical course with part-time faculty.

Other studies have examined part-time faculty and student outcomes at community

colleges. For example, Eagan and Jaeger (2009) tracked two cohorts of students in the California

community college system and found a significant negative association between students'

exposure to part-time faculty and their likelihood of transfer. For every 10% increase in

exposure, students were 3% less likely to transfer to a four-year institution. However, Porchea,

Allen, Robbins, and Phelps (2010) found that institutions with a greater proportion of full-time

faculty did not have better graduation rates. Supporting that finding, Yu, Campbell, and

Mendoza (2015) did not find a negative association between proportion of part-time faculty at a

community college and student credential completion.

Xu (2019) found that community college students whose first course in a field of study

was taken with a part-time instructor were equally likely to complete the course as students who

took the class with a full-time instructor. However, they were significantly less likely to take

another course in the field, and those who did earned lower grades than students who had

initially studied with a full-time faculty member. Similar findings were reported by Ran and

Sanders (2020), who focused on developmental and gateway courses specifically.

Similar to Baldwin and Wawrzynski (2011)'s findings for university faculty,

BoarerPitchford (2014) compared the assessment practices of part-time and full-time faculty at

two community colleges in California and found that full-time faculty were more likely to use

authentic assessments such as research projects and learning journals.

While the available literature on part-time faculty and student outcomes indicates that

there may be a negative relationship between part-time faculty and student success, almost none

of these studies examined the culture, climate, or context of the institution and how those factors

might impact the ability of part-time faculty to perform as well as full-time faculty. The notable

exception is the study conducted by Ran and Sanders (2020), in which the researchers noted that

adjusting for the schedules of part-time faculty substantially accounted for the differences in

outcomes.

The next section examines the literature on the role of part-time faculty within

institutions of higher education.

Part-Time Faculty in the Community College Context

Because part-time faculty teach more than half of community college students (CCCSE,

2014), it is critical that college leaders support their engagement in instruction-related change

efforts. They are a stakeholder group without whom broad-scale instructional change cannot be

successfully implemented at the classroom level. Because of this, the role of part-time faculty

within the context of any individual institution affects the outcomes of change implementation.

Several studies have examined the ways in which organizational culture and the inclusion

of and respect for part-time faculty affect the integration of this stakeholder group into

department and/or college culture (Kezar, 2013a, b; Kezar & Sam, 2013, 2014; Meixner et al.,

2010; Wagoner et al., 2005). One institutional factor that affects the ability of higher education

organizations to implement instruction-related change is the reliance on part-time faculty.

Viewing the reliance on part-time faculty through the part-time faculty lens, Meixner et al.

(2010) advocated for improved inclusion of part-time faculty in higher education after

conducting a qualitative survey examining how part-time faculty perceived their experiences at a

university. The researchers found that receiving outreach and navigating challenges were key

factors, along with developing skills, for supporting the integration of part-time faculty. Kezar

(2013a) also examined four-year institutions. The researcher conducted a case study of 25

departments and the policies and practices that supported non-tenure track faculty and identified

four types of department culture: destructive, neutral, inclusive, and learning. The learning

culture was most inclusive of non-tenure track faculty.

Another study of part-time faculty at a public university, conducted by Buch,

McCullough, and Tamberelli (2017), found that fewer than 10% of part-time faculty respondents

were satisfied with the level of institutional support they received, fewer than 25% reported

receiving any support with instruction or pedagogy, and the overwhelming theme that emerged

from the needs analysis phase of the study was a feeling of isolation and disconnectedness on the

part of part-time faculty. However, after the institution implemented several targeted

interventions to address the concerns from the needs assessment, a follow-up survey had only

one respondent report receiving no institutional support, and 62% of respondents had used or

participated in at least one of the newly implemented initiatives.

While Meixner et al. (2010), Kezar (2013a), and Buch et al. (2017) focused on part-time

faculty at universities, Wagoner et al. (2005) conducted a case study to examine the relationship

of reliance on part-time faculty and organizational culture at a midwestern community college.

The researchers connected the reliance on part-time faculty to increasing globalization and labor

trends and determined that administrators are willing to exploit part-time faculty because of the

benefits of flexibility and cost savings. The researchers recommended that administrators should

be reflective about their use of part-time faculty and whether that use aligns with the college's

mission, values, and goals.

More recently, Curtis, Mahabir, and Vitullo (2016) studied part-time sociology faculty at

community colleges, using data from a national survey to compare perceptions of full-time and

part-time faculty regarding working conditions, professional identity, engagement, and respect. The researchers additionally compared responses of part-time faculty identifying as part-time by choice (voluntary part-time) and involuntary part-time faculty. Findings included several significant differences in professional engagement and respect, with part-time faculty significantly less likely on several measures to have demonstrated professional engagement and significantly more likely to identify serious issues regarding respect of part-time faculty. Involuntary part-time faculty were even less likely to demonstrate engagement or feel respected than voluntary part-time faculty.

Only a handful of studies have directly addressed the role of part-time faculty in organizational change, and some of these (e.g., Kezar, 2013b; Kezar & Sam, 2013) have focused primarily on changes in policy and practice to support part-time faculty, not change initiatives and how part-time faculty are included. Kezar (2013b) conducted a case study with non-tenure track faculty (NTTF) and found that NTTF perceived that departmental policies shaped their performance and ability to provide quality learning experiences. This finding could provide additional context to the studies described above that found a negative correlation between part-time faculty and student outcomes (e.g., Eagan & Jaeger, 2009; Mueller et al., 2013; Umbach, 2008).

In another case study on NTTF, Kezar and Sam (2013) examined institutionalization of positive policies and practices supporting contingent faculty and found such institutionalization to be rare. The process and stages of change were consistent across institutions, but the specific positive policies and processes differed between four-year and two-year colleges. Consistent strategies and themes emerged within each of the three overall stages of institutionalization, leading the researchers to recommend that leadership strategies to move toward

institutionalization should be targeted to the stage that the institution is in, and leaders need to use multiple strategies at once.

Gray's (2017) case study supported Kezar and Sam's (2013) recommendation to institutionalize supports for part-time faculty. Gray (2017) examined the integration of part-time faculty teaching developmental math at a community college. The researcher found that part-time faculty were well-integrated into the department but that some institutional and structural barriers to their integration at the institutional level remained. Key factors in their integration within the department included information and relationships with others, including department chairs, colleagues, mentors, and small-group level teams that were responsible for different levels of developmental math. Barriers to the full integration of part-time faculty into the institution included hierarchical issues of wage and position insecurity; inadequate space, resources, and privacy; lack of pay for participation in activities outside of instruction; and dependence on department chairs for integration.

In contrast, Buzan's (2017) quantitative study examined the perceptions of full-time and part-time faculty regarding the inclusion and effectiveness of part-time faculty at a community college and did not find a perceived lack of support for part-time faculty. Full-time and part-time faculty perceptions were not significantly different on most survey items, but part-time faculty had slightly more positive perceptions of institutional support services for part-time faculty. However, the response rate to the survey was only 37%, and part-time faculty may have been less likely to respond.

Part-Time Faculty in Community College Initiatives

Community colleges are faced with enormous pressure to increase student success and completion, and many current community college initiatives relate directly to instructional

practices (Boggs & McPhail, 2016; CCCSE, 2014). As community colleges increasingly rely on part-time faculty to teach classes, they may be decreasing their ability to engage and support faculty in change efforts since part-time faculty are less likely to be involved in decision-making processes and governance as well as professional development opportunities (CCCSE, 2014, 2019; Jenkins, 2011; Lee, 2015).

The most recent Community College Faculty Survey of Student Engagement (CCFSSE) results reflect this comparative lack of involvement of part-time faculty. Part-time faculty reported less awareness of guided pathways implementation at their institution: 60.9% of part-time faculty reported not knowing if their college was implementing guided pathways, compared to 30.2% of full-time faculty. Additionally, part-time faculty reported less participation on college committees or task forces (77.8% reported no participation, compared to 10.5% of full-time faculty) and less engagement in professional development at the institution, with 36.6% of part-time faculty indicating no involvement in professional development at their college within the last 12 months compared to 8.2% of full-time faculty (CCCSE, 2019).

Recent interviews and focus groups conducted with faculty at six community colleges identified commonalities of the part-time faculty experience to include complex circumstances of employment and instruction, limited connection of part-time faculty to their departments and colleges, and poor compensation and a sense of being undervalued; at the same time, part-time faculty described a strong commitment to students and teaching (Bickerstaff & Chavarín, 2018).

In spite of the significance of the reliance of community colleges on part-time faculty, only three studies have examined part-time faculty experiences of institutional processes and initiatives at community colleges; all three of them were qualitative case studies. Jolley et al. (2014) examined the experiences of 20 part-time faculty teaching in community colleges

regarding the assessment processes implemented by their two-year institutions and found two key themes: a perceived lack of engagement, and a perceived lack of assessment. Participant responses demonstrated lack of engagement through persistent descriptions of feeling invisible, unvalued, and without a role in the governance of their departments or institutions. At the same time, participants described a lack of meaningful evaluation practices and assessment of their work, contributing to their perception of being undervalued and ignored. The researchers argued that because of the large numbers of part-time faculty at community colleges, the engagement and assessment of part-time faculty are necessary to the success of the college completion agenda.

To identify effective engagement strategies, Gerhard and Burn (2014) conducted a case study examining effective engagement strategies for eleven non-tenure-track faculty in community college pre-college math reform. In their study, department leaders considered non-tenure-track faculty to be crucial to the success of the reform, and the faculty wished to be engaged in spite of the fact that their engagement had historically been low. Key strategies that led to the initial engagement of non-tenure-track faculty were compensation for participation, the offer of preferential scheduling for faculty who participated in trainings related to the new curriculum, and personal encouragement and invitations from other faculty engaged in the reform. Sustained engagement was supported by providing professional development opportunities that both helped faculty develop professional relationships and also build on their commitment to student success.

The third qualitative case study that examined part-time faculty experiences of community college initiatives is Coulter's (2016) case study, which included eight part-time faculty and examined their experience of a student success initiative. The researcher found that

part-time faculty with a strong professional identity, described in terms of experience, credentials, and pedagogical training, led to an improved understanding of the faculty member's role in student success. However, the reception of organizational change messages was influenced by the perception of respect on the part of the agents of change.

Examined together, the three case studies in this section highlight the importance of engaging and supporting part-time faculty in community college initiatives. Part-time faculty reported a need to feel respected, valued, and engaged in the work of the institution. However, these studies were all qualitative case studies with small numbers of participants. There is a need to examine the engagement and support of part-time faculty in community college improvement efforts using quantitative methods and larger samples.

The Role of the Department for Part-Time Faculty

Several studies referenced throughout this review of the literature emphasized the importance of the departmental unit in organizational change and faculty perceptions of work. Gappa and Leslie (1993) recognized the important role of department chairs in implementing fair and consistent policies. Gappa et al. (2007) further emphasized the key role of department leaders, calling them "critical" to the daily functions of faculty in the department and to setting the tone for the culture of the department (p. 169).

The importance of the department may be especially salient for part-time faculty, for whom the department and department chair are likely to be the main unit and person of contact within the broader institution. Kezar (2013a) found that departmental culture varied in degree of inclusion of part-time faculty. In a companion study, Kezar (2013b) also found that NTTF perceived that their ability to provide quality learning experiences was influenced by department policies. Beach (2002) also found department-level effects on faculty teaching approaches.

Korgan (2016) found that positive outcomes of part-time faculty compared to full-time faculty increased even more when controlling for institutional and departmental climate.

Section Summary

Empirical findings suggest that the culture and characteristics of an institution can impact the inclusion, participation, and engagement of part-time faculty. Cultures and characteristics that support the integration and involvement of part-time faculty result in a more professionalized stakeholder group. This finding supports the essential elements framework (Gappa et al., 2007) and reinforces the critical importance of respect for part-time faculty on the part of other institutional stakeholders. Aside from the three qualitative case studies described above, the body of literature on higher education instruction-related change lacks extensive empirical examination of the role and experiences of part-time faculty in such change at community colleges. While instructional change initiatives abound, and the reliance on part-time faculty to educate students, especially at community colleges, has steadily increased, the perspectives of part-time faculty in organizational change are not being included in the research literature.

Theoretical Frameworks

Current scholarship on organizational or instructional change and the role of faculty has been based on a number of theoretical frameworks, with no single framework emerging as a consistently-used lens for examining the role of faculty in change. In conducting this literature review, over 20 different theories were identified in the relevant literature, and several studies used no theory at all (e.g., Jolley et al., 2014; Meixner et al., 2010; Vertin, 2001). Frameworks used have included systems theory (Coulter, 2016; Moore, 2015; Smulowitz, 2014),

organizational theory (Haviland, 2014) and theories of academic culture (Kezar & Eckel, 2002; Wagoner et al., 2004). Other studies have used organizational change frameworks (Haugen, 2015; Kezar & Sam, 2013; Owen & Demb, 2004; Stich, 2008). Still others have used Ajzen's (1991, 2005) theory of planned behavior from the field of social psychology to examine faculty intentions and behavior (Ajjan & Hartshorne, 2008; Knabe, 2012; Lenski, Richter, & Lüdtke, 2017; Paver, Walker, & Hung, 2014; Stowe, 2013). However, none of these frameworks explicitly connects workplace identity, institutional climate, and organizational change, so a framework not previously used to study higher education was selected for this study.

This study will use change-oriented Organizational Citizenship Behavior (OCB), especially the antecedents identified by López-Domínguez et al. (2013), to explore the role of faculty in organizational change. In addition, because of the unique role of faculty and the governance structure of institutions of higher education, it was necessary to identify a conceptual framework that successfully addresses those concepts. Gappa et al.'s (2007) framework of faculty work addresses the elements of faculty work and the importance of respect for all faculty groups. The conceptual framework of faculty work provided by Gappa et al. was used extensively in the development of the SCII (Walter et al., 2015, 2018), the instrument that will be used in this study.

Transformational Leadership and Change-Oriented Organizational Citizenship Behavior

The concept of organizational citizenship behavior (OCB) describes a number of different discretionary workplace behaviors that are not related to job content (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). These behaviors are grouped into two broad categories: affiliative and challenging (Bettencourt, 2004). The so-called challenging forms of OCB are those that are associated with promoting organizational change (Bettencourt, 2004; Choi, 2007;

López-Domínguez et al., 2013). Research focused on the challenging forms of OCB has

attempted to identify antecedents of these behaviors (Choi, 2007; López-Domínguez et al.,

2013).

López-Domínguez et al. (2013) theorized that transformational leadership and innovative

climate have a positive relationship with the mediating factors of an individual's role breadth

self-efficacy and felt responsibility for constructive change, which in turn influence change-

oriented organizational citizenship behaviors. The authors proposed and tested a model that

focused on transformational leadership and organizational climate. Using confirmatory factor

analysis and structural equation modeling, the researchers identified four antecedents of change-

oriented OCB:

- Developmental leadership: contributing to employees' self-confidence and personal

  development and leading them to go beyond expectations;

- Supportive leadership: taking employees' needs into consideration in decision-making;

- Climate (support for innovation): protecting and encouraging employees' risk-taking; and

- Climate (resources availability): providing social and material resources that support

  change and innovation.

Although this theory has not yet been applied to higher education organizations,

connections can be made to studies described earlier in this chapter. For example, Goldfien and

Badway (2015) identified administrative support for reform, funding, and faculty involvement as

necessary to impacting outcomes in higher education. Other authors identified the key role of

department-level leaders in the daily functions of faculty, the culture of the department, and the

ability of faculty to provide quality learning experiences (Beach, 2002; Gappa et al., 2007;

Kezar, 2013a; Kezar, 2013b).

These studies indicate the possibilities for using López-Domínguez et al.'s (2013) model to examine faculty perceptions of organizational climate and change initiatives. Although their model was not used as a framework in the development of the SCII, it can serve as an appropriate and relevant theoretical framework through which to analyze the results of that instrument.

Essential Elements of the Faculty Work Experience

When change in higher education involves the need for instructional changes, faculty are a critical group of stakeholders. Therefore, the context and experience of faculty and their work within the institution, and their relationship with other stakeholders within the institution, are critical to change implementation. Gappa et al. (2007) examined the changing context of higher education and proposed a framework of essential elements of the faculty work experience. The researchers argued that these essential elements should be upheld equitably, no matter what the employment status is of an individual faculty member. They defined respect as "the basic human valuing of every faculty member" (p. 139). In this framework, respect is the foundation of any effort to create and sustain a work environment for faculty that encourages the growth and success of all faculty, no matter their employee status, and the institution.

In addition to respect, the essential elements of the faculty work experience identified by Gappa et al. (2007) were employment equity, flexibility, professional growth, collegiality, and academic freedom and autonomy. The outcomes resulting from the presence of those elements included increased faculty satisfaction and sense of meaningfulness, increased organizational commitment, and enhanced recruitment and retention. Other outcomes included a broader spectrum of individuals represented on the faculty, and more strategic utilization of intellectual capital. The researchers argued that these essential elements should be upheld equitably, no

matter what the employment status is of an individual faculty member. Faculty work within an institution was also affected by institutional characteristics: mission, resources, reward structure, leadership, governance and structure, and culture and norms. Finally, characteristics of the faculty themselves, including both demographics and appointment types, affected perceptions of the work experience.

This framework provides a model for understanding that ongoing learning and access to information are critical for the engagement of part-time faculty in instruction-related change. Using Gappa et al.'s (2007) essential elements framework to explore the perceptions of part-time faculty in organizational change at community colleges will develop researchers' understanding of the role of the work environment in successfully implementing change.

Gappa et al. (2007) included institutional factors, or characteristics, as an important contextual feature of faculty work. The framework addressed the outcomes of change and the faculty work model. The results of organizational change may be mediated through the presence of the essential elements of faculty work, including foundational respect for all faculty. This framework was later used as one of the bases for the development of the SCII and the factors identified as important to measuring institutional climate for instructional improvement (i.e., Walter et al., 2015).

Section Summary

The empirical literature on organizational change and faculty stakeholders in higher education lacks consistency in how theory is used and applied. The number of theories used is almost as great as the number of studies conducted. Therefore, the theories for this study were carefully selected based on their applicability to the concepts being studied and their use in prior research. This study applies the conceptual framework provided by Gappa et al. (2007) to

examine the experiences and perceptions of community college faculty stakeholders regarding

climate for instructional improvement. This model provides a framework for understanding how

faculty, including part-time faculty, experience their work and role as faculty members during

institutional change. Additionally, López-Domínguez et al.'s (2013) antecedents of change-

oriented OCB provide a theoretical perspective that can be applied to the SCII in order to

examine how department factors are related to climate for instructional improvement.

Institutional Climate for Teaching Improvement and Development of the SCII

The conceptual framework guiding this study addresses the importance of organizational

factors and context. Gappa et al.'s (2007) framework posited that characteristics of the

institutional context influence the faculty work experience. Walter et al. (2015, 2018) connected

the factors of institutional climate to organizational change and faculty perceptions of climate in

their development of the SCII.

Organizational climate was defined by Schneider et al. (2013) as "the shared perceptions

of and the meaning attached to the policies, practices, and procedures employees experience and

the behaviors they observe getting rewarded and that are supported and expected" (p. 362). The

study of organizational climate often examines climate for a specific process, such as

organizational change, and frequently examines subunits of the organization in addition to the

entire organizational structure (Schneider et al., 2013).

Several studies have examined institutional climate for the improvement of teaching and

learning in higher education (Beach, 2002; Henderson & Dancy, 2007; Lattuca, Bergom, &

Knight, 2014; Ramsden, Prosser, Trigwell, & Martin, 2007). Beach (2002) conducted a mixed

methods study to examine climate for teaching at the departmental level. The quantitative

component of the study examined national data from 13,222 respondents to the HERI 1998

faculty survey. The sample used for the study included only full-time faculty at four-year colleges and universities. Quantitative modeling showed that departmental effects influenced variance in outcome, and that the largest effect was from department engagement in teaching enhancement. Interestingly, faculty rank was negatively associated with the use of active and collaborative teaching methods, with the use of such methods decreasing as faculty rank increased from instructor to full professor.

Findings from the case study component of the same study, which examined 11 institutions, indicated that faculty members' academic disciplines were associated with their teaching approaches (Beach, 2002). Also, in departments with the strongest climate for teaching, department chairs were of key importance, and departments with less collegiality also had less emphasis on teaching. Influences on department climate were found to include college support; the mission, history, and culture of the institution; leadership for teaching and learning; and outside influences such as accreditation and advisory boards. The researcher found the most important dimensions of department climate for teaching to be extent of engagement in professional development, the leadership and support of department chairs, the resources available, and the perceptions of available resources.

Similarly, Ramsden et al. (2007) also found that heads of academic departments were critical to commitment to student learning in their study of 439 university lecturers in Australia. The researchers developed a survey instrument to measure lecturers' experience of leadership for teaching, collaborative management of teaching in the department, collegial commitment to student learning, the context of classroom teaching, and teachers' approaches to teaching. Their structural modeling indicated that there may be a relationship between perceptions of department-level leadership and perceptions of collegial support for student learning. However,

their study did not examine differences in perceptions between full-time and part-time faculty,

surveying only faculty with the rank of lecturer.

The role of department-level norms in the selection and use of instructional strategies

also emerged in a qualitative study conducted by Henderson and Dancy (2007). The researchers

interviewed six tenured faculty in physics at four different four-year institutions and examined

the discrepancy between their conceptions of good teaching and their self-described teaching

practices. Self-identified situational barriers to changing teaching practices included

departmental norms around teaching.

In contrast to the earlier studies by Beach (2002), Ramsden et al. (2007), and Henderson

and Dancy (2007), Lattuca et al. (2014) found only a modest relationship between departmental

environment and teaching and assessment practices. Their study used survey data from a

National Science Foundation (NSF) project to examine the use of student-centered teaching

practices among engineering faculty at four-year institutions. The researchers used linear

regression techniques to identify influences on faculty use of teaching practices and assessment

strategies; however, they only examined data for tenured and tenure-track faculty, eliminating

survey responses from non-tenure-track faculty.

Landrum, Viskupic, Shadle, and Bullock (2017) developed their own instrument to

measure institutional climate during a specific organizational change process and at the same

time measured faculty members' personal behavior and readiness to change. The researchers

surveyed faculty members at one university and found that the higher a faculty member's self-

reported state on the evidence-based instructional strategies adoption scale, the greater they

perceived themselves to have free choice in teaching, the greater they weighted teaching in

teaching-research balance, the greater they perceived campus encouragement to use evidence-

based instructional strategies, and the more connected they felt to other teachers on campus. The researchers compared responses from tenured/tenure-track faculty and non-tenure-track faculty and found that the tenured/tenure track faculty perceived less institutional support for teaching and were more likely to believe that research was more highly valued on campus than teaching. The researchers did not examine part-time non-tenure-track faculty separately.

Although the studies described in this section indicate that institutional climate for teaching and learning can impact instructional practices, especially at the department level, there is a clear need for further research that uses a consistent instrument to measure factors of climate for instructional improvement. Additionally, such research must include community colleges given their unique context and differences from four-year institutions. There is also a need for part-time faculty to be included in this research and for their perceptions of climate for teaching improvement to be compared to those of full-time faculty.

Development of the SCII

One instrument that has been developed and can further research on institutional climate for teaching improvement is the SCII (Walter et al., 2015, 2018). This instrument built upon the surveys developed by Beach (2002) and Ramsden et al. (2007), incorporating factors from those earlier instruments into factors identified in Gappa et al.'s (2007) conceptual framework of faculty work.

Walter et al. (2015) identified the role of institutional climate as a key factor in barriers to changing instruction. The researchers developed the SCII in order to measure organizational climate for instructional improvement, defined as "the action or process of making changes in teaching with the goal of achieving the best possible learning outcomes. This change-making process includes the introduction or continued use of evidence-based instructional strategies,

technologies, and/or curriculum" (p. 2). The instrument measures five components of

organizational climate that are based primarily on Gappa et al.'s (2007) essential elements

framework (Walter et al., 2015):

1. Leadership for instructional improvement,

2. Collegiality for instructional improvement,

3. Resources for instructional improvement,

4. Organizational support for instructional improvement, and

5. Respect for teaching.

In their forthcoming manuscript, Walter et al. (2018) noted that the goal of developing

the SCII was to "build a deeper understanding of the complex systems in which faculty teach"

(p. 1). The SCII has been field tested and pilot tested, then completed by a convenience sample

of 917 post-secondary instructors at six institutions. The overall response rate was 28%. So far,

the SCII has only been used at universities; no community colleges have yet been included for

study.

Among the university faculty respondents, the only significant difference between full-

time and part-time faculty was in mean organizational climate scores, with full-time faculty

perceiving significantly less organizational support than part-time faculty (Walter et al., 2018).

Department-level differences emerged as important. Two of the six institutions differed

significantly by department on most factors of institutional climate. Additionally, the leadership

factor accounted for over 44% of the variance, indicating that formal department-level leaders

such as department chairs have an important role in the creation of climate and are likely to be a

key variable in facilitating instructional improvement.

The SCII provides an opportunity to conduct quantitative research on climate for teaching improvement using an existing instrument. Because the SCII has not yet been used with community college faculty, this study will fill a gap in the existing research by using the SCII at a community college and assessing the perspectives of both full-time and part-time faculty.

Summary

This review of the literature addresses the body of existing research related to this study and the research questions. This chapter examined the theoretical frameworks used in the existing literature as well as the literature on organizational change in higher education, the role of faculty stakeholders in such change, and the role and inclusion of part-time faculty in higher education organizational change.

Limitations and Gaps in the Literature

There are three key limitations in existing studies on faculty stakeholders in higher education organizational change: limited variety in type of study, lack of recognition of the role and importance of part-time faculty in community colleges, and the omission of the perceptions of part-time faculty.

Overreliance on qualitative case studies. The literature on the role of faculty stakeholders in higher education change overwhelmingly relies on qualitative case studies. Case studies have been conducted examining institutional factors in higher education organizational change (Boyce, 2003; Kezar & Eckel, 2002; Stich, 2008) and the perceptions of stakeholders in such change (Barnett, 2011; Smulowitz, 2014; Vertin, 2001). Additional case studies focused on the role of faculty in organizational change (Goldfien & Badway, 2015; Kezar et al., 2011; Owen & Demb, 2004). Wagoner et al. (2005), Meixner et al. (2010), and Kezar (2013a) conducted case

studies addressing the experiences of part-time faculty, though organizational change was not the focus of those studies.

This limitation is addressed in the current study through the use of quantitative methods and an existing instrument, the SCII, that was created specifically to measure factors of institutional climate for instructional change.

Limited research on the role of part-time faculty stakeholders. While the literature examines the institutional context for organizational change and includes recognition of the role of faculty stakeholders in change, very limited research has been conducted on the role of part-time faculty stakeholders in change. One of the few quantitative studies examining stakeholder perceptions of organizational change, Van Wagoner's (2004) survey, did not identify or separately analyze full-time and part-time faculty responses. Other studies have focused on the organizational or departmental culture and its relationship to treatment of part-time faculty at an institution (Kezar, 2013a, 2013b; Kezar & Sam, 2014; Wagoner et al., 2005), rather than the experiences of part-time faculty themselves.

This study includes both full-time and part-time faculty at a community college, permitting a comparison of perceptions of institutional climate between those two groups. Because community colleges rely so heavily on the employment of part-time faculty at the same time that they are undergoing great pressure to improve student success and completion, a study that examines the perceptions of all groups of faculty members has practical implications for community college administrators and policy-makers.

Omission of the part-time faculty perspective. Finally, even the literature that directly addresses part-time faculty rarely addresses their perceptions. Part-time faculty perceptions are largely absent from the literature on organizational change in higher education, in spite of the

large numbers of part-time faculty within organizations (Kezar & Sam, 2010). Only three studies

were identified that examined the experiences of part-time faculty during community college

change initiatives (Coulter, 2016; Gerhard & Burn, 2014; Jolley et al., 2014). The perspective of

part-time faculty, and potential differences between their perspectives and those of full-time

faculty, are especially important to instructional change in community colleges.

Although previous administrations of the SCII did not find any significant differences

between part-time and full-time faculty respondents except for a perception of less organizational

support on the part of full-time faculty (Walter et al., 2018), the instrument has not previously

been used at a community college. Investigating perceptions of part-time community college

faculty using an existing instrument addresses this gap in the literature, especially as part-time

faculty in community colleges may be more likely than those at four-year institutions to report

lack of respect, support, and engagement.

In summary, the current body of literature on faculty and organizational change lacks

quantitative analysis, a unified theoretical framework, and the self-reported perspectives of part-

time faculty. This quantitative study addresses those gaps and limitations by using a validated

survey instrument specifically to examine the perspectives of part-time faculty regarding

institutional climate for teaching improvement within a community college.

The following chapter describes the methodology used in this study.

Chapter 3: Methods

The purpose of this chapter is to describe the research design of this quantitative study, which addresses the following questions:

1. Are the constructs of the SCII (i.e., leadership, collegiality, resources, organizational support, and respect for teaching) reliable and valid for full- and part-time community college faculty in Washington State?

2. What are the perceptions of climate for teaching improvement (i.e., leadership, collegiality, resources, organizational support, and respect for teaching) among full-time and part-time faculty at a community college in Washington State?

    a. What are the perceptions of climate for teaching improvement among faculty in the eight academic divisions (Aerospace and Advanced Manufacturing Careers, Arts and Learning Resources, Business and Applied Technology, Communication and Social Sciences, Health Sciences and Public Safety, Transitional Studies, Math and Sciences, and Student Development) of the community college?

    b. What are the perceptions of climate for teaching improvement among faculty by gender (male, female, trans or non-cisgender)?

    c. What are the perceptions of climate for teaching improvement among faculty by race/ethnicity (Asian, Black, Hispanic or Latino/a, Native American or Alaskan Native, Native Hawaiian or Pacific Islander, White, Multi-ethnic)?

    d. What are the perceptions of climate for teaching improvement among faculty by years of teaching experience?

3. Are there significant mean differences in perceptions of climate for instructional change

    (as measured by leadership, collegiality, resources, organizational support, and respect

    for teaching) among full- and part-time community college faculty in Washington State?

    a. Are there significant mean differences in perceptions of leadership for full-time

        and part-time faculty?

    b. Are there significant mean differences in perceptions of collegiality for full-time

        and part-time faculty?

    c. Are there significant mean differences in perceptions of resources for full-time

        and part-time faculty?

    d. Are there significant mean differences in perceptions of organizational support for

        full-time and part-time faculty?

    e. Are there significant mean differences in perceptions of respect for teaching for

        full-time and part-time faculty?

This chapter begins with a description of the philosophical approach underlying the study. Then,

the method, setting, sample, instrumentation, variables, data collection, data analysis,

delimitations, and limitations of the study are described.

Philosophical Approach

This study is grounded in a postpositivist philosophical approach. Postpositivism

emerged from the positivist worldview (Creswell, 2014). Positivism itself refers to a system of

thought, which rests on the assumption that absolute knowledge could be established by

perceiving reality through the senses (Carr & Kemmis, 1986). Applied to the social sciences,

positivism entails that the goals, concepts, and methods used in the natural sciences should be

applied to the social sciences, as should the model of explanation and standards of logic of the

natural sciences (Carr & Kemmis, 1986). Positivists attempted to "develop clear criteria for meaningful statements and adequate explanations" (Bredo & Feinberg, 1982, p. 14).

Criticisms of positivism include a recognition that the ideals of objective science are not realistic; knowledge is not produced in a vacuum but is situated within social and subjective factors that are informed by beliefs, values, and assumptions of the researcher (Bredo & Feinberg, 1982; Carr & Kemmis, 1986). Postpositivism responds to that criticism with the acknowledgement that knowledge is not absolute, but conjectural, based on the strongest available evidence, but fallible and not perfect (Phillips & Burbules, 2000). Among its key assumptions are that the nature of reality is independent of human experience but can only be incompletely known and understood (Manning & Stage, 2016). The accumulation of research provides evidence for the understanding of reality, but that understanding will never be complete (Creswell, 2014; Manning & Stage, 2016). Postpositivist researchers acknowledge their own biases and critically examine their methods and conclusions to reduce bias and attain validity and reliability (Creswell, 2014; Manning & Stage, 2016).

Postpositivism is associated with quantitative research that relies on statistics to lend support to hypotheses and develop a body of knowledge (Manning & Stage, 2016). Inferential statistical methods assume that conclusions about a population can be drawn by studying a large enough sample (Johnson & Christensen, 2017). Therefore, inferential statistics are used to develop and contribute to the body of knowledge referenced by postpositivists.

Strengths and Limitations of Postpositivism

Strengths of postpositivism include a concern with generalizable results and an attempt to maintain an objective relationship between the researcher and the research participants (Manning & Stage, 2016). Collecting information with an instrument that is completed by participants and

based on measurable constructs is a type of research supported by postpositivism (Creswell, 2014). This study used an existing survey with a new population and setting in order to add to the accumulated knowledge of the role of faculty in institutional change, and thus aligns with the postpositivist approach.

Limitations of postpositivism include lack of input on the part of research participants, an expectation that the researcher remain a disinterested observer, and a focus on breadth rather than depth of knowledge (Manning & Stage, 2016). To address these limitations, this chapter includes an acknowledgement of the researcher position and possible biases. Additionally, by using an existing survey to examine the beliefs of respondents, this study contributes to the depth of knowledge on institutional climate for instructional improvement and deepens understanding of the validity of the instrument.

Personal Disclosure

Taking a postpositivist approach to conducting research requires that I acknowledge my biases as a researcher and that the research being undertaken contribute to the field (Manning & Stage, 2016). My bias as a researcher is evident in the topic selected for this research study and its connection to my background and interests. As a former faculty member who has held, at different times, the position of part-time faculty, full-time faculty, department chair, and academic administrator, I have firsthand experience with faculty perceptions of organizational change and institutional climate.

Manning and Stage (2016) also argued that the design of a postpositivist study should include steps to reduce bias, increase objectivity, and build on the work of previous researchers. This survey-based study addresses those concerns of postpositivism; the design of the study

described in this chapter attempts to add to the body of knowledge through rigorous methods of data collection and analysis.

Methods

In order to address the research questions, this study employed quantitative methods. Quantitative methods are appropriate for addressing the attitudes and opinions of a population and describing those attitudes and opinions numerically (Creswell, 2014). Quantitative methods also measure variables that have been identified in the theoretical frameworks and literature of the field (Johnson & Christensen, 2017). Therefore, the three research questions of this study were best examined using quantitative methods. The first research question addresses the need to statistically measure the reliability and validity of the instrument as it is used with a new population, faculty in community colleges. The next two research questions address the attitudes and opinions of a population (in this case, faculty at a Washington community college) which can be described numerically by generalizing from a sample.

Conducting a quantitative study also addressed two gaps identified in the literature on part-time faculty, institutional climate, and instructional change. First, existing studies that address this topic largely consist of qualitative case studies. Adding quantitative work to the body of literature will enable data collection from a larger sample and analysis of the factors identified in the earlier qualitative studies (Creswell, 2014). Second, very few studies have examined this topic from the perspective of the population of part-time faculty. Surveying a sample of that population and comparing their responses to those of full-time faculty adds to the understanding of their attitudes and behaviors regarding organizational change (Dillman, Smyth, & Christian, 2014).

Design

The design used for this study was descriptive nonexperimental research using a survey instrument. Descriptive research is often used to examine the attitudes and opinions of a population (Johnson & Christensen, 2017). In order to address the research questions, this study used results from a survey to examine faculty perceptions of climate for instructional change. The study adopted an existing instrument, the SCII, for a new population and setting: faculty teaching at community colleges in Washington State. Dillman et al. (2014) stated that surveys are used to collect information from a sample in order to answer a question or solve a problem and noted that the survey method can be a highly efficient way of learning about a population if used correctly. However, the researchers pointed out several types of survey error that must be minimized in order to increase the generalizability of results. Using appropriate methods of sampling, question design, and data collection can produce accurate data about a population's attitudes and behaviors (Fowler, 2014).

Setting and Population

In order to reach a population that had not been examined with the SCII, this study focused on community colleges. The population studied was faculty teaching at community colleges in Washington State, including full-time and part-time faculty.

Sample and Setting

The sample included faculty teaching at one of the largest community colleges in Washington state. In 2018-19, the total number of teaching faculty at community colleges in the state system was 12,424 (SBCTC, 2020a). Previous administrations of the SCII have had samples between 67 and 215, with an overall response rate of 28% (Walter et al., 2018). However, one site had a response rate of 70% due to personal relationships and colleagues

promoting the survey link at the institution (E. M. Walter, personal communication, May 23,

2018). Because five constructs were measured, the sample size needed to include at least 100

responses according to recommendations for factor analysis precision (Thompson, 2004).

However, other recommendations call for a sample of at least 300 for a reliable factor analysis,

though a smaller sample of around 150 could be sufficient if there are several high-loading

variables (Mertler & Reinhart, 2017). Additionally, components with four or more loadings

above .60 in absolute value could be reliable regardless of sample size (Mertler & Reinhart,

2017). Because the factor reliability in previous administrations of the SCII has ranged from .634

to .938 for the five factors (Walter et al., 2018), a sample of 150 would be sufficient for the

current study, and an even smaller sample could be reliable.

Achieving at least 150 responses with a 30% response rate supported using an institution

with at least 450 faculty members as the setting for the study. Seven colleges in Washington

State employed at least 450 faculty in 2018-19, as shown in Table 3.1 (SBCTC, 2020a). While

not the largest institution of the seven, College 4 is an institution at which I have several

colleagues at the instructor and academic administrator levels. With their support in distributing

and advertising the survey to faculty, it seemed likely that a response rate higher than 30% could

be reached based on the previous experiences of SCII researchers (E. M. Walter, personal

communication, May 23, 2018). At the end of the data collection period, however, only 92

complete responses were collected, a 19% response rate.

Table 3.1

Community Colleges in Washington State with More Than 450 Total Teaching Faculty

Institution	Number of Full-Time Teaching Faculty	Number of Part-Time Teaching Faculty	Total Faculty
College 1	199	781	980
College 2	192	557	749
College 3	131	408	539
College 4[a]	138	404	542
College 5	157	476	633
College 6	153	445	598
College 7	225	435	660

[a]College 4 is the college that was used in this study.

Faculty Development Context

The institution in this study provides professional development opportunities to both full-time and part-time faculty (M. Balachowski, personal communication, December 3, 2020). All new full-time faculty are enrolled in a yearlong New Faculty Academy, which includes a two-day campus orientation, a two-day statewide orientation, and two-hour monthly meetings to discuss topics related to pedagogy. All new part-time faculty are invited to attend a paid, quarter-long Associate Faculty Academy focused on teaching effectiveness, and part-time faculty who do not participate within their first two quarters at the college may not be offered classes in subsequent quarters. Additionally, the institution offers an Innovations Academy twice per year focused on teaching improvement, and a mentoring program for Associate Faculty applying for Senior Associate status.

Reaching the Sample

In order to reach the sample with the survey instrument, the institutional researcher at the participating institution was asked to distribute the link to the survey instrument to all faculty at their institution. I also personally contacted colleagues at the institution and asked for their assistance with promoting survey responses from faculty. Two follow-up reminders were sent as described below in the Data Collection section of this chapter. Because of the initial low response rate during the first two-week period of data collection, the survey was redistributed for a second two-week period to reach additional participants.

Instrumentation and Variables

The variables addressed in this study are factors of the climate that faculty perceive to be essential to instructional improvement. Demographic data, including gender, race/ethnicity,

faculty employment status (full-time or part-time), academic department, and years teaching were also collected.

Specific factors of the institutional climate measured by the SCII (Walter et al., 2018) are

1. Leadership for instructional improvement,

2. Collegiality for instructional improvement,

3. Resources for instructional improvement,

4. Organizational support for instructional improvement, and

5. Respect for teaching.

These variables were derived from the conceptual framework guiding this study, Gappa et al.'s (2007) framework of the essential elements of faculty work. Walter et al. (2015, 2018) developed the SCII using Gappa et al.'s (2007) framework as the primary source for the components they identified. See Table 3.2 for definitions of each variable and a complete list of the survey items used to measure each variable (Walter et al., 2018). Each variable is measured by several survey items, each using a six-point (0-5) Likert scale labeled strongly disagree (0), disagree (1), somewhat disagree (2), somewhat agree (3), agree (4), and strongly agree (5).

Leadership for instructional improvement is defined as the policies, actions, or expectations established by the formal leader of the department that communicate the value of teaching and instructional improvement (Walter et al., 2018). Examples of survey items that measure this construct are "The department chair implements teaching-related policies in a consistent and transparent manner" and "The department chair is tolerant of fluctuations in student evaluations when instructors are trying to improve their teaching."

Collegiality for instructional improvement is defined as the feeling of instructors that they belong to a mutually respectful community of colleagues who value their contributions and feel

concern for each other's well-being (Walter et al., 2018). Examples of survey items that measure this construct are "Instructors in my department discuss the challenges they face in the classroom with colleagues" and "Instructors in my department are 'ahead of the curve' when it comes to implementing innovative teaching strategies."

Resources for instructional improvement is defined as the tools necessary for instructional improvement, including funding, office space, equipment, and support services (Walter et al., 2018). Examples of survey items that measure this construct are "Instructors in my department are satisfied with their teaching workload" and "Instructors in my department have the support they need to employ educational technologies in their classrooms."

Table 3.2

Variables and Definitions

Variable	Definition	Survey Items (scale of 0 [strongly disagree] to 5 [strongly agree]
Leadership for instructional improvement	Policies, actions, or expectations established by the formal leader of the department that communicate the value of teaching and instructional improvement.	The department chair… S16. … encourages instructors to go beyond traditional approaches to teaching. S17. … has a clear vision of how to improve teaching in the department. S18. … implements teaching-related policies in a consistent and transparent manner. S19. … inspires respect for his/her ability as a teacher. S20. … is receptive to ideas about how to improve teaching in the department. S21. … is tolerant of fluctuations in student evaluations when instructors are trying to improve their teaching. S22. … is willing to seek creative solutions to budgetary constraints in order to maintain adequate support for teaching improvements.
Collegiality for instructional improvement	Instructors feel they belong to a mutually respectful community of colleagues who value their contributions and feel concern for each other's well-being.	Instructors in my department… S1. … frequently talk with one another. S2. … discuss the challenges they face in the classroom with colleagues. S3. … share resources (ideas, materials, sources, technology, etc.) about how to improve teaching with colleagues. S5. … use teaching observations to improve their teaching. S7. … are "ahead of the curve" when it comes to implementing innovative teaching strategies.
Resources for instructional improvement	Tools necessary for instructional improvement, including funding, office space, equipment, and support services.	Instructors in my department… S8. … are satisfied with their teaching workload. S10. … have adequate departmental funding to support teaching improvement. S11. … have adequate space to meet with students outside of class. S12. … have adequate time to reflect upon and make changes to their instruction. S13. … have considerable flexibility in the content they teach in their courses. S14. … have considerable flexibility in the way they teach their courses. S15. … have the support they need to employ educational technologies in their classrooms.

Table 3.2 (Continued)

Variable	Definition	Survey Items (scale of 0 [strongly disagree] to 5 [strongly agree]
Organizational support for instructional improvement	Opportunities that enable instructors to broaden their knowledge, abilities, and skills to address challenges, concerns, and needs, and to find deeper satisfaction in their work.	S6. Instructors in my department value teaching development services available on campus as a way to improve their teaching. S9. Instructors in my department are assigned a mentor for advice about teaching. S29. In my department, there are structured groups organized around the support and pursuit of teaching improvement. S30. In my department, instructors with a record of teaching excellence are financially rewarded (e.g., bonuses, raises, or similar).
Respect for teaching	Values and perceptions regarding teaching effectiveness.	S4. Instructors in my department aspire to become better teachers. S23. In my department, new instructors are provided with teaching development opportunities and resources. S24. In my department, applicants for all teaching positions are required to provide evidence of effective teaching. S25. In my department, evidence of effective teaching is valued when making decisions about continued employment and/or promotion. S26. In my department, teaching effectiveness is evaluated fairly. S27. In my department, teaching is respected as an important aspect of academic work. S28. In my department, all of the instructors are sufficiently competent to teach effectively.

Organizational support for instructional improvement is defined as opportunities that enable instructors to broaden their knowledge, abilities, and skills to address challenges, concerns, and needs, and to find deeper satisfaction in their work (Walter et al., 2018). Examples of survey items that measure this construct include "Instructors in my department value teaching development services available on campus as a way to improve their teaching" and "In my department there are structured groups organized around the support and pursuit of teaching improvement."

Respect for teaching is defined as the values and perceptions regarding teaching effectiveness (Walter et al., 2018). Examples of survey items that measure this construct include "Instructors in my department aspire to become better teachers" and "In my department, evidence of effective teaching is valued when making decisions about continued employment and/or promotion."

The SCII identified and utilized relevant components which align with the variables of this study. This study adopted that instrument for the population of faculty in Washington community colleges. Because the instrument was administered to a new population, its construct reliability needed to be assessed.

See Appendix A for the complete SCII, used with permission. The instrument was used in its entirety with only slight modifications to the demographic questions. The version included in Appendix A is the paper version of the survey; however, this study administered the online version of the survey using Qualtrics software. The items are identical in both versions.

Data Collection

After receiving Institutional Review Board (IRB) approval to conduct this study, initial data collection took place in Fall Quarter 2019, during a two-week period in early November

2019. An email containing a link to the survey instrument was sent to the faculty members at the

college in the study (see Appendix B). While the body of the email was composed by the

researcher and introduced the researcher and the study, the email itself was sent by the college's

institutional researcher.

Respondents were asked to complete and submit the survey within two weeks during the

fall academic term. In order to maximize response rate, the presentation of the survey followed

the recommendations provided by Dillman et al. (2014): (1) questions displayed similarly across

devices, browsers, and platforms; (2) the survey was optimized for mobile devices; (3) there

were informative and appealing welcome and closing screens; (4) screens were visually

consistent; (5) and consideration was given to how participants would interact with individual

questions and the survey as a whole. These features are all present in the current online version

of the SCII using Qualtrics software.

One reminder email was sent after one week to encourage additional responses, and a

second reminder was sent on the final day of the response period. The original email and the

reminder email were written in a professional manner and tailored to encourage responses

(Dillman et al., 2014).

The initial data collection period resulted in only 53 responses, a response rate of only

11%. Therefore, a second two-week data collection period was established in January 2020,

following the same procedures for inviting and reminding participants as described above. After

the second period of data collection ended, 92 complete responses had been received.

Protection of Participants

Several steps were taken to protect the confidentiality and anonymity of survey

respondents. First, both the principal investigator (PI) and the student researcher have completed

research ethics training through the Collaborative Institutional Training Initiative. Next, all

procedures were reviewed and approved by the Oregon State University IRB (see Appendix C).

The body of the email introducing the study and containing the survey link included a

description of the purpose of the study, introduced the student researcher and PI, assured

participants that the study would not disclose their identity, explained how the respondents were

selected, and included information about how long respondents could expect to spend

completing the survey (Dillman et al., 2014). The first screen of the survey described the study

and reiterated the information from the email regarding the protection of personal information

(see Appendix D). To gain consent, the first screen indicated that by clicking to the following

screen, respondents consented to participate in the study.

All data files associated with this study are stored in a password-protected folder on a

password-protected computer. Data will be retained securely for three years following the

conclusion of the study per IRB guidelines.

Data Analysis

Data analysis procedures followed recommendations by Mertler and Reinhart (2017) for

statistical analyses. First, steps were taken to ensure proper management and handling of the

collected data. Then, the appropriate statistical analyses were conducted to address the research

questions of the study.

Data Management and Handling

The data were imported from the Qualtrics survey tool into the statistical software

Statistical Package for the Social Sciences (SPSS) version 25 for analysis. The data were

reviewed to ensure there were no missing fields or other problems using the missing value

analysis tool in SPSS. The survey data were reviewed for completeness and data were screened.

Screening data serves four purposes: (1) to ensure that the data are accurate, (2) to assess the effect of and determine how to deal with missing data, (3) to assess the effects of extreme values on the data, and (4) to assess how well the data fit the assumptions of the statistics procedures being used (Mertler & Reinhart, 2017).

SPSS was used to check for incorrect values and to examine missing data for each variable as described by Mertler and Reinhart (2017). No values were incorrect for any variables. However, several of the Likert scale survey questions had missing cases, with one to five missing responses for 22 of the 30 questions. Of the 92 respondents, 81 completed every question; 11 of them, 12% of the total, left at least one answer blank when completing the survey. Mertler and Reinhart (2017) recommend replacing missing values with the mean score if 5-15% of cases are missing. Because 12% of cases were missing data, and the missing data could be assumed to be missing at random, the missing values were replaced with the mean score from available cases (Cheema, 2014).

Next, outliers were addressed. Univariate outliers were identified using boxplots in SPSS; one severe outlier was identified and deleted (Mertler & Reinhart, 2017). Mahalanobis distance was calculated with SPSS to identify any multivariate outliers. The critical value of χ^2 at p < .001 and df = 30 is 59.703. Therefore, cases with a Mahalonobis distance greater than 59.703 would be considered multivariate outliers (Mertler & Reinhart, 2017). The maximum value found was 57.398 and therefore all of the data were retained. Variance inflation factors (VIF) were examined to identify multicollinearity among the variables. All variables were shown to have VIF less than 10 and were retained for the analysis (Warner, 2013).

Prior to conducting the factor analysis, each item on the SCII was evaluated for univariate normality. Frequencies and means were computed for all items. Table 3.3 presents

those statistics for all 91 participants on each of the 30 survey items. Item means ranged from

1.06 to 4.07. The standard deviation for the items ranged from .904 to 1.465.

Univariate normality was analyzed to determine the level of skewness and kurtosis for

each item. Four items had skewness and/or kurtosis values greater than |1|, though those were all

close to |1|. Because an examination of the histograms and Q-Q plots for those four items did not

indicate a substantial deviation from normal, and skewness was not "excessively elevated," those

items were not transformed (Watkins, 2018, p. 224).

Statistical Analyses

Several statistical analyses were conducted to answer the research questions of this study,

and the details of those analyses are presented in Chapter 4. First, descriptive statistics are

presented for the demographic information collected, including faculty job status (full-time/part-

time), gender, race/ethnicity, academic division, and years teaching in higher education. Where

possible, demographics of respondents are compared to institutional and statewide faculty

demographics to assess the representativeness of the sample. Then, analyses were conducted to

answer each research question as described below.

Table 3.3

Item Means, Standard Deviation, Skew, and Kurtosis

Survey Item	Mean	SD	Skew	Kurtosis
Instructors in my department…				
…frequently talk with one another	3.73	1.193	-1.013	.378
…discuss the challenges they face in the classroom with colleagues	3.59	1.145	-1.007	.722
…share resources about how to improve teaching with colleagues	3.53	1.177	-.506	-.404
…aspire to become better teachers	3.89	.983	-.853	.749
…use teaching observations to improve their teaching	2.83	1.186	-.200	-.335
…value teaching development services available on campus as a way to improve their teaching	2.99	1.130	-.403	.075
Instructors in my department are…				
…"ahead of the curve" when it comes to implementing innovative teaching strategies	2.94	1.099	-.246	.147
…satisfied with their teaching workload	2.99	1.197	-.694	.114
…assigned a mentor for advice about teaching	1.84	1.333	.581	-.488
Instructors in my department have…				
…adequate departmental funding to support teaching improvement	2.29	1.258	-.089	-.600
…adequate space to meet with students outside of class	3.33	1.342	-.741	-.258
…adequate time to reflect upon and make changes to their instruction	2.75	1.465	-.394	-.869
…considerable flexibility in the content they teach in their courses	3.51	1.320	-.887	.126
…considerable flexibility in the way they teach their courses	4.07	.904	-1.054	1.056
…the support they need to employ educational technologies in their classrooms	3.32	1.094	-.834	.423
The department chair…				
…encourages instructors to go beyond traditional approaches to teaching	3.17	1.186	-.617	-.432
…has a clear vision of how to improve teaching in the department	2.74	1.234	-.321	-.539
…implements teaching-related policies in a consistent and transparent manner	3.03	1.251	-.585	-.557
…inspires respect for his/her ability as a teacher	3.30	1.353	-.822	-.047
…is receptive to ideas about how to improve teaching in the department	3.61	1.142	-.554	-.553

Table 3.3 (Continued)

Survey Item	Mean	SD	Skew	Kurtosis
…is tolerant of fluctuations in student evaluations when instructors are trying to improve their teaching	3.58	1.080	-.754	.656
…is willing to seek creative solutions to budgetary constraints in order to maintain support for teaching improvements	3.24	1.010	-.455	-.136
In my department…				
…new instructors are provided with teaching development opportunities and resources	3.37	1.206	-.552	-.245
…applicants for all teaching positions are required to provide evidence of effective teaching	3.39	1.168	-.677	.358
…evidence of effective teaching is valued when making decisions about continued employment and/or promotion	3.27	1.236	-.685	-.097
…teaching effectiveness is evaluated fairly	3.02	1.155	-.264	-.437
…teaching is respected as an important aspect of academic work	3.84	1.124	-1.118	1.080
…all of the instructors are sufficiently competent to teach effectively	3.12	1.332	-.523	-.081
…there are structured groups organized around the support and pursuit of teaching improvement	3.22	1.254	-.404	-.518
…instructors with a record of teaching excellence are financially rewarded	1.06	1.196	.964	.020

Note. SCII scale: 0 = Strongly Disagree, 1 = Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Agree, 5 = Strongly Agree

Research Question 1. Are the constructs of the SCII reliable and valid for community college faculty in Washington State?

Because the instrument was used with a new population, community college faculty, the study included reliability and validity testing for this setting and population. Cronbach alpha was used to check reliability, and factor analysis was conducted to determine whether the five factors emerged. Cronbach's coefficient alpha (α) measures the internal consistency of a set of items in a scale by representing the amount of total variance from a common source (Pett, Lackey, & Sullivan, 2003). The standard for reliability used in this study was a Cronbach alpha $\geq$ .70 (Watkins, 2018).

In order to address the construct validity of the survey factors, factor analysis was conducted. The technique of factor analysis is used to group variables that measure a single construct and to identify factors that explain common variance among variables (Mertler & Reinhart, 2017; Thompson, 2004). Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) had already been conducted in the development of the SCII to assess the reliability of its constructs (Walter et al., 2018). This study conducted an EFA to assess whether the constructs remained reliable for the population of community college faculty. Principal axis factoring was conducted, with four criteria to determine the appropriate number of components to retain: (1) eigenvalue, (2) variance, (3) scree plot, and (4) residuals (Mertler & Reinhart, 2017; Thompson, 2004).

Research Question 2. What are the perceptions of five measures of climate for teaching improvement (leadership, collegiality, resources, organizational support, and respect for teaching) for full-time and part-time faculty at a community college in Washington State?

In order to address this question, mean responses for the entire sample and then separately for full-time and part-time faculty and other demographic variables (academic division, gender, race/ethnicity, years of teaching experience) were calculated using SPSS. Composite scores for each of the reliable constructs were calculated by adding the scores for items in the factor and dividing by the maximum possible score for that factor.

Independent *t*-tests and one-way analyses of variance (ANOVAs) were conducted to evaluate the statistical significance of any differences in mean. The use of the *t*-test is appropriate when there is a two-category independent variable (IV) (e.g. full-time faculty and part-time faculty) and a quantitative dependent variable (DV) (Mertler & Reinhart, 2017). Previous results on the SCII have been analyzed using *t*-tests (Walter et al., 2018). The use of ANOVA is appropriate when there is an IV with more than two categories (e.g. academic divisions) and a quantitative DV (Mertler & Reinhart, 2017). Relationships with a value of $p \leq .05$ are reported as statistically significant.

Research Question 3. Are there significant mean differences in perceptions of climate for instructional change (as measured by the combination of leadership, collegiality, resources, organizational support, and respect for teaching) for community college faculty of different employment statuses (full-time and part-time) in Washington State?

To address this question, multivariate analysis of variance (MANOVA) was used to further analyze and compare responses for full-time and part-time faculty. MANOVA is used to compare the responses of groups on multiple dependent variables (Mertler & Reinhart, 2017) and is therefore an appropriate statistical procedure for this study, in which MANOVA was used to compare the responses of full-time and part-time faculty on the five dependent variables. MANOVA is used when there are multiple dependent variables that share conceptual meaning in

order to test whether mean differences are likely to have occurred by chance (Mertler &

Reinhart, 2017) and therefore provides more information about any group differences in

responses than the *t*-tests alone. Relationships with a value of $p \leq .05$ were determined to be

statistically significant.

Delimitations and Limitations

This study surveyed full-time and part-time faculty employed at one community college

in Washington State. Only those faculty teaching during the quarter when data is collected were

included in the sample. The study took place during two academic quarters, Fall 2019 and

Winter 2020.

The limitations of this study include issues with response rate, representativeness of the

sample, and nonresponse error. First, only 19% of faculty at the institution responded to the

survey, with 92 total complete responses collected. This could impact the reliability and

generalizability of the study results. Second, part-time faculty were underrepresented in the

sample. Only 44% of survey respondents were part-time faculty, whereas part-time faculty make

up 66% of the faculty at the institution and 61% of community college faculty in Washington

State. Therefore, the demographics of the part-time faculty respondents in this study may not

reflect the demographics of the population of part-time faculty. Finally, nonresponse error may

have occurred because the faculty most likely to respond to the survey may be those who are

already more engaged and perceive themselves to be included in college-wide initiatives

(Dillman et al., 2014).

Summary

This quantitative study surveyed full-time and part-time faculty at a large community

college in Washington State. An existing instrument, the SCII, was adopted for this population in

order to measure the factors of the institutional climate that community college faculty perceive to be essential to instructional innovation. Full-time and part-time faculty responses were compared overall and for each variable measured by the SCII. Additionally, the instrument was assessed for reliability in the community college setting. In order to answer the research questions, descriptive statistics, factor analyses, t-tests, ANOVA, and MANOVA were conducted using SPSS version 25.

Chapter 4: Results

The primary purpose of this study was to examine the perceptions of full-time and part-time community college faculty in Washington State regarding climate for instructional improvement using the SCII (Walter et al., 2015, 2018).

The purpose of this chapter is to present the data analysis results in order to address this study's research questions. This chapter first examines whether the constructs of the SCII are reliable and valid for full- and part-time community college faculty in Washington State. Next, the perceptions of climate for teaching improvement are compared between full-time and part-time faculty, faculty in the different academic divisions, faculty of different genders, faculty of different racial/ethnic backgrounds, and faculty with different amounts of teaching experience. Finally, the differences in perceptions between full-time and part-time faculty are examined more closely for significant differences.

This chapter presents descriptive statistics for the respondents followed by the data analysis for each research question: exploratory factor analysis, mean comparisons, and multivariate analysis of variance.

Respondent Data and Descriptive Statistics

Respondents were community college faculty teaching during the fall and winter terms of the 2019-20 academic year at a single institution in Washington State. Participants responded to 30 six-point Likert scale questions assessing perceptions of climate for teaching improvement. Respondents also answered five demographic questions regarding their faculty position, primary academic division, gender identity, racial or ethnic group, and number of years teaching in higher education. Following the data screening procedures described in Chapter 3, 91 total responses remained for analysis.

Table 4.1 presents data comparing the faculty position, race, and gender of respondents to that of the total faculty at the institution and in Washington State (SBCTC, 2020a). Respondents were 54.4% full-time faculty and 44% part-time faculty. Of the participants, 57.1% identified as female, 29.7% identified as male, and 3.3% identified as trans or non-cisgender. Additionally, 74.7% of respondents identified as white, 4.4% as Hispanic or Latino/a, 2.2% as Black, 2.2% as multi-ethnic, and 1.1% as Asian. There were survey respondents from every academic division: Communication and Social Sciences 19.8%, Health Sciences and Public Safety 19.8%, Math and Sciences, 19.8%, Transitional Studies 15.4%, Business and Applied Technology 7.7%, Aerospace and Advanced Manufacturing 6.6%, Student Development 5.5%, and Arts and Learning Resources 4.4%. Participants' years of teaching experience in higher education ranged from 0 to 39 with respondents having 14.48 mean years of teaching experience.

The sample is not entirely representative of the population of faculty at the institution or in Washington State. Full-time faculty were overrepresented among respondents (54.4%) compared to the institution (34.4%) and the state (39%). Racial and ethnic response categories on the SCII varied from those available in the SBCTC data (2020a), but non-white respondents appeared to be underrepresented (9.9%) compared to non-white faculty at the institution (21.9%) and in the state (16.6%). Female faculty were representative in the sample (57.1%) compared to the institution (57.1%) and the state (57.9%).

Table 4.1

Survey Respondents' Faculty Status Compared to Institutional and Statewide Faculty Status

Faculty Characteristic	Respondents	Institution	Washington State
Faculty Position			
Total Full-Time Faculty	54.4%	34.4%	39%
Full-Time Temporary	7.7%	-	-
Full-Time Probationary	6.6%	-	-
Full-Time Tenured	40.7%	-	-
Total Part-Time Faculty	44%	65.6%	61%
Senior Associate Faculty	14.3%	-	-
Associate Faculty	29.7%	-	-
Race/Ethnicity			
Non-White	9.9%	21.9%	16.6%
White	74.7%	78.1%	78%
Other/No response	15.4%	-	5.4%
Gender			
Female	57.1%	57.1%	57.9%
Male	29.7%	42.9%	42.1%
Trans or Non-Cisgender	3.3%	-	-
Other/No response	9.9%	-	< 1%

Research Question 1: Reliability, Validity, and Exploratory Factor Analysis

To address the first research question, Cronbach alpha was determined and exploratory factor analysis was conducted.

Reliability Analyses

Prior to conducting the factor analysis, Cronbach alpha was determined to check the internal consistency reliability of the survey overall and for each of the five factors. Generally, for social science research, a positive Cronbach alpha of .7 or above is considered acceptable (UCLA Statistical Consulting Group, n.d.; Watkins, 2018). Walter et al. (2018) reported an overall Cronbach alpha coefficient for the SCII of .952. In the current study, the overall Cronbach alpha coefficient was .918.

Cronbach alpha was also determined for each of the five factors of the SCII. The computed alpha for leadership, with seven items, was .909. The computed alpha for collegiality, with five items, was .822. The computed alpha for resources, with seven items, was .749. The computed alpha for respect for teaching, with seven items, was .816. The computed alpha for organizational support, with four items, was .566. Table 4.2 summarizes this information and compares the alphas from this sample to the Cronbach alphas found by previous SCII researchers. While the overall Cronbach alpha remained very high in the current study, the lower Cronbach alpha on several factors compared to previous SCII research supported the decision to reevaluate the factors for the community college faculty population through exploratory factor analysis (EFA).

Table 4.2

Summary of Cronbach alpha Reliability Scores

	Number of Items	Cronbach alpha, Current Study	Cronbach alpha, Previous SCII Research
Test of All Items	30	.918	.952
Leadership	7	.909	.946
Collegiality	5	.822	.826
Resources	7	.749	.846
Respect for Teaching	7	.816	.900
Organizational Support	4	.566	.634

Exploratory Factor Analysis (EFA)

To answer Research Question 1, exploratory factor analysis was conducted to determine what underlying structures exist for measures on the 30 variables of the SCII, and whether those structures aligned with those found by previous researchers. Because of the small sample size, principal axis factoring was selected among the possible factor analysis models (Watkins, 2018). Promax rotation, an oblique rotation method, was applied because of the possible correlations among factors (Watkins, 2018). The initial analysis produced an eight-component solution. Bartlett's test of sphericity was significant at $p < .001$, and the KMO statistic was .828, above the recommended minimum standard for factor analysis of .70 (Pett et al., 2003; Watkins, 2018). Therefore, it was appropriate to proceed with the factor analysis.

Four criteria were used to determine the appropriate number of components to retain: eigenvalue, variance, scree plot, and residuals. The initial analysis produced eight components with eigenvalues greater than one; however, with 30 variables, a sample size < 250, and several communalities < .70, the eigenvalue criterion is not strongly reliable (Mertler & Reinhart, 2017). Variance also indicated that eight components accounted for over 70% of the variability. The eigenvalue and variance findings are summarized in Table 4.3. However, the scree plot descended sharply after the third component (see Figure 4.1), and evaluation of residuals, the differences between empirical and reduced correlations, indicated several residuals > .05 (Mertler & Reinhart, 2017). An additional consideration was that prior SCII research had identified five factors (Walter et al., 2018). Because the assessment of these criteria did not lead to a definitive solution, four different factor solutions were examined more closely: three-factor, four-factor, five-factor, and six-factor.

Table 4.3

Factor Analysis Total Variance Explained

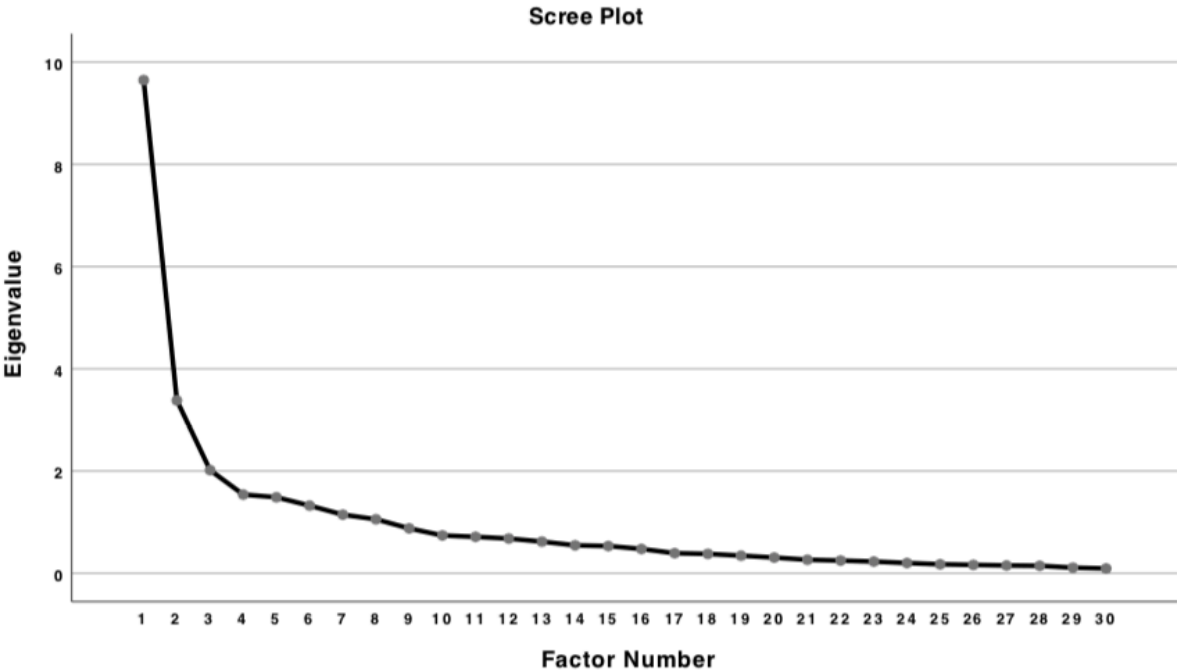| Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	9.647	32.156	32.156
2	3.381	11.270	43.426
3	2.018	6.728	50.154
4	1.540	5.133	55.287
5	1.487	4.957	60.244
6	1.324	4.413	64.657
7	1.146	3.821	68.478
8	1.056	3.521	71.999

Figure 4.1

Figure 4.1. Scree plot from principal axis factoring EFA.

To examine those possible factor solutions, SPSS was used to conduct factor analyses

forcing three, four, five, and six factors to find the solution with the best fit. Each solution was

produced using principle axis factoring and Promax rotation as in the initial analysis, then

evaluated for total variance, factor loadings, and alignment with the original survey factors to

determine the best fit. The three-factor solution accounted for 45.4% of total variance, the four-

factor solution accounted for 49.3% of variance, the five-factor solution accounted for 52.7%,

and the six-factor solution for 56.2%.

Factor loadings were examined for each solution using the pattern matrix results in order

to guide interpretation of results to a simple structure solution in which each factor is loaded by

at least three variables, each variable loads saliently on only one factor, each factor demonstrates

internal consistency reliability, and the factors are theoretically meaningful (Watkins, 2018). To

examine the salience of a variable's factor loading, pattern coefficients of |.40| or higher on a

single factor and not more than |.30| on any other factors were considered salient for

interpretation (Watkins, 2018). In the three-factor solution, each factor was loaded by more than

three variables, and four variables loaded saliently on more than one factor. The factors

demonstrated internal consistency reliability, with Cronbach alphas of .911, .862, and .732. In

the four-factor solution, each factor was loaded by more than three variables; five variables

loaded saliently on more than one factor. The factors demonstrated internal consistency

reliability, with Cronbach alphas of .905, .868, .730, and .755. In the five-factor solution, each

factor was loaded by at least three variables. Five variables loaded saliently on more than one

factor. Four of the five factors demonstrated strong internal consistency reliability; Cronbach

alphas were .903, .868, .796, .704, and .645. In the six-factor solution, one factor was loaded by

only two variables, and five variables loaded saliently on more than one factor. Four of the six

factors demonstrated strong internal consistency reliability; Cronbach alphas were .895, .867, .834, .696, .681, and .742.

In addition to factor loadings and internal consistency, the results of the factor analyses were evaluated for theoretical meaningfulness. They were compared against the results of prior SCII research as well as the theoretical and conceptual frameworks used in this study. Following this analysis, the four-factor solution emerged as the most adequate representation of the SCII with this population. Table 4.4 summarizes the items and their primary factor loadings.

The decision was made to retain all items in spite of six of them having primary factor loadings less than .40. While some items could have been removed, Cronbach alpha results indicated that removal of items would not greatly improve internal consistency reliability. The four factors appeared to align with the model of transformational leadership as an antecedent of change-oriented organizational citizenship behavior proposed by López-Domínguez et al. (2013), and were named accordingly: Developmental Leadership, Support for Innovation, Resource Availability, and Supportive Leadership.

Table 4.4

Four-Factor Solution: Factor Names and Corresponding Items Retained with Primary Factor Loading

Factor	Items	Primary Factor Loading
Developmental Leadership	Chair implements teaching-related policies in a consistent and transparent manner	.868
	Chair is receptive to ideas about how to improve teaching in the department	.825
	Chair inspires respect for their ability as a teacher	.803
	Chair is tolerant of fluctuations in student evaluations when instructors are trying to improve their teaching	.798
	Chair is willing to seek creative solutions to budgetary constraints in order to maintain adequate support for teaching improvements	.725
	Chair has a clear vision to improve teaching in the department	.659
	Chair encourages instructors to go beyond non-traditional approaches to teaching	.638
	Teaching is respected as an important aspect of academic work	.526
	There are structured groups organized around the support and pursuit of teaching improvement	.424
Support for Innovation	Instructors share resources about how to improve teaching with colleagues	.887
	Instructors in department frequently talk with one another	.866
	Instructors discuss the challenges they face in the classroom with colleagues	.835
	Instructors aspire to become better teachers	.569
	Instructors in department are "ahead of the curve" when it comes to implementing innovative teaching strategies	.473
	Instructors value teaching development services available on campus as a way to improve their teaching	.349
	Applicants for all teaching positions are required to provide evidence of effective teaching	.327

Table 4.4 (Continued)

Factor	Items	Primary Factor Loading
Resource Availability	Instructors have considerable flexibility in the way they teach their courses	.833
	Instructors are satisfied with their teaching workload	.673
	Instructors have adequate time to reflect upon and make changes to their instruction	.660
	Instructors have the support they need to employ educational technologies in their classrooms	.525
	Instructors have considerable flexibility in the content they teach in their courses	.505
	Instructors have adequate space to meet with students outside of class	.423
	Instructors have adequate department funding to support teaching improvement	.313
	New instructors are provided with teaching development opportunities and resources	.297
	Instructors are assigned a mentor for advice about teaching	.231
Supportive Leadership	Teaching effectiveness is evaluated fairly	.548
	Evidence of effective teaching is valued when making decisions about continued employment and/or promotion	.506
	Instructors use teaching observations to improve their teaching	.501
	All of the instructors are sufficiently competent to teach effectively	.429
	Instructors with a record of teaching excellence are financially rewarded	.329

Within López-Domínguez et al.'s model (2013), Developmental Leadership refers to leadership that contributes to the self-confidence and personal development of employees and leads them to go beyond expectations. The SCII items that aligned with this aspect of transformational leadership included, for example, "The chair implements teaching-related policies in a consistent and transparent manner" and "The chair is receptive to ideas about how to improve teaching in the department." Support for Innovation refers to the protection and encouragement of employees' risk-taking. The SCII items that aligned with this factor included "Instructors share resources about how to improve teaching with colleagues" and "Instructors in the department frequently talk with one another." Supportive Leadership is that which takes employees' needs into consideration into decision-making. SCII items that aligned with Supportive Leadership included "Teaching effectiveness is evaluated fairly" and "Evidence of effective teaching is valued when making decisions about continued employment and/or promotion." In the model proposed by López-Domínguez et al. (2013), these three components are antecedents of role breadth self-efficacy (RBSE), employees' perceived ability to go beyond the technical requirements of their work. RBSE in turn is a predictor of innovative and proactive behavior.

Resource Availability is the provision of social and material resources that support change and innovation. SCII items that aligned with this factor included "Instructors have considerable flexibility in the way they teach their classes" and "Instructors are satisfied with their teaching workload." In López-Domínguez et al.'s model (2013), Resource Availability is an antecedent of felt responsibility for constructive change (FRCC), employees' willingness to proactively generate improvements and resolve problems. Along with RBSE, FRCC is a predictor of change-oriented behavior.

Research Question 2: Mean Scores on Factors

This section addresses Research Question 2 and presents the mean scores on the four factors that were identified through factor analysis. To obtain the mean scores, the scores for each item within a group were added together, then divided by the number of items in the group. Mean scores were also calculated for the entire 30-item SCII. Demographic variables were adjusted as follows to create comparable groups. Senior Associate Faculty and Associate Faculty were combined into one part-time faculty group. Full-Time Temporary, Full-Time Probationary (tenure-track), and Full-Time Tenured were combined into one full-time faculty group. Also, due to the low number of responses from participants of color, non-white participant responses were grouped together. Additionally, reported years of teaching experience were grouped into ranges: 0-7 years, 8-15 years, 16-20 years, and 21 or more years.

Because four new factors were identified through the EFA and will be used as the dependent variables in this section and the next, data were screened again prior to conducting the group comparisons. Four severe outlier cases were detected and removed from analysis (Mertler & Reinhart, 2017).

After making those changes, *t*-tests (for groups with two categories) and one-way ANOVA (for groups with more than two categories) were conducted to compare the mean scores between groups on each of the four factors.

Full-Time and Part-Time Faculty

An independent-samples *t*-test was conducted to compare the total SCII score for full-time and part-time faculty. There was no significant difference in scores for full-time faculty (*M* = 3.16, *SD* = .57) and part-time faculty (*M* = 3.29, *SD* = .62; *t* (84) = 1.00, *p* = .321).

Next, independent samples *t*-tests were conducted to compare the scores of full-time and part-time faculty on Developmental Leadership, Support for Innovation, Resource Availability, and Supportive Leadership. There was no significant difference in scores on Developmental Leadership for full-time faculty ($M = 3.32$, $SD = .82$) and part-time faculty ($M = 3.46$, $SD = .83$; t (88) = .78, $p = .438$). There was no significant difference in scores on Support for Innovation for full-time faculty ($M = 3.67$, $SD = .63$) and part-time faculty ($M = 3.32$, $SD = .94$; t (64) = -1.98, $p = .052$). Full-time faculty reported significantly lower perceptions of Resource Availability ($M = 2.89$, $SD = .72$) than part-time faculty ($M = 3.35$, $SD = .60$; t (88) = 3.20, $p = .002$). The magnitude of the differences in the means (mean difference = .46, 95% *CI*: .174 to .747) was moderate (eta squared = .11). There was no significant difference in scores on Supportive Leadership for full-time faculty ($M = 2.65$, $SD = .80$) and part-time faculty ($M = 2.82$, $SD = .90$; t (88) = .96, $p = .341$).

Table 4.5 summarizes the results of these *t*-tests comparing the mean scores of full-time and part-time faculty. Figure 4.2 illustrates the mean score comparisons for full-time and part-time faculty.

Academic Divisions

One-way between-groups ANOVAs were conducted to compare the mean scores for members of the eight academic divisions on the total SCII and the four factors. For the total SCII mean score, the overall F for the one-way ANOVA was not statistically significant (F (7, 78) = 2.00, $p = .065$). For Developmental Leadership, the overall F for the one-way ANOVA was not statistically significant (F (7, 78) = 1.15, $p = .341$). For Support for Innovation, the overall F for the one-way ANOVA was not statistically significant (F (7, 78) = .95, $p = .473$).

Table 4.5

t-Test Comparison of Full-Time and Part-Time Faculty Perceptions of Climate

Perceptions of factors of departmental climate	Full-time Faculty (n = 47)		Part-time Faculty (n = 39)		t (84)	p
	M	SD	M	SD		
Total SCII Score	3.16	.57	3.29	.62	1.00	.321
Developmental Leadership	3.32	.82	3.46	.83	.78	.438
Support for Innovation	3.67	.63	3.32	.94	-1.98[a]	.052
Resource Availability	2.89	.72	3.35	.60	3.20	.002**
Supportive Leadership	2.65	.80	2.82	.90	.96	.341

Note. * p < .05; ** p < .01; *** p < .001.
[a]Levene's test was significant for Support for Innovation, so equal variances were not assumed, and t (64) is reported for that variable.
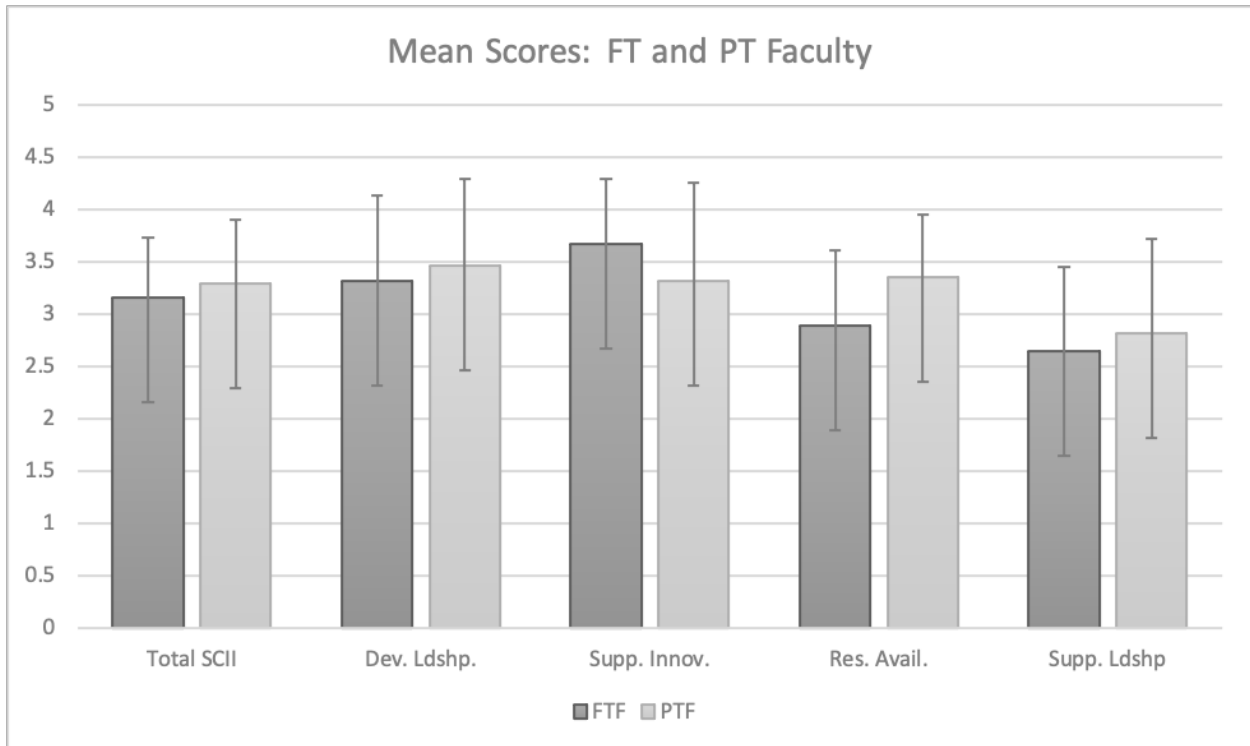
Figure 4.2

Figure 4.2. Mean scores of full-time and part-time faculty.

For Resource Availability, the overall F for the one-way ANOVA was statistically significant (F (7, 78) = 2.99, p = .008). All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty in the Communication and Social Sciences division (M = 3.55, SD = .56) had significantly higher perceptions of Resource Availability than faculty in the Aerospace and Advanced Manufacturing Careers division (M = 2.56, SD = .88) and faculty in the Math and Sciences Division (M = 2.78, SD = .51). The effect size, eta squared, was large, .21.

For Supportive Leadership, the overall F for the one-way ANOVA was statistically significant (F (7, 78) = 2.66, p = .016). All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty in the Health Sciences and Public Safety division (M = 3.21, SD = .79) had significantly higher perceptions of Supportive Leadership than faculty in the Transitional Studies division (M = 2.13, SD = 1.04). The effect size, eta squared, was large, .19.

Table 4.6 summarizes the ANOVA results for mean comparisons among the eight academic divisions.

Table 4.6

ANOVA Mean Score Comparisons for the Eight Academic Divisions

Perceptions of factors of departmental climate	AAMC M (SD)	ALR M (SD)	BAT M (SD)	CSS M (SD)	HSPS M (SD)	TS M (SD)	MS M (SD)	SD M (SD)	F	p
Total SCII score	2.75 (.69)	3.23 (.73)	3.58 (.32)	3.35 (.53)	3.44 (.70)	2.99 (.58)	3.06 (.47)	3.27 (.27)	2.00	.065
Developmental Leadership	2.86 (.73)	3.39 (1.02)	3.77 (.33)	3.57 (.73)	3.57 (1.00)	3.24 (.88)	3.12 (.82)	3.56 (.20)	1.15	.341
Support for Innovation	3.00 (.89)	3.52 (.58)	3.76 (.51)	3.29 (.96)	3.71 (1.01)	3.40 (.77)	3.69 (.41)	3.61 (.38)	.95	.473
Resource Availability	2.56 (.88)	3.15 (.74)	3.43 (.60)	3.55 (.56)	3.22 (.89)	2.89 (.46)	2.78 (.51)	2.89 (.35)	2.99	.008**
Supportive Leadership	2.53 (.72)	2.67 (.62)	3.23 (.41)	2.72 (.83)	3.21 (.79)	2.13 (1.04)	2.55 (.72)	2.95 (.34)	2.66	.016*

Note. AAMC = Aerospace & Advanced Manufacturing Careers; ALR = Arts & Learning Resources; BAT = Business & Applied Technology; CSS = Communication & Social Sciences; HSPS = Health Sciences & Public Safety; TS = Transitional Studies; MS = Math & Sciences; SD = Student Development.
p < .05; ** p < .01; *** p < .001.

Gender Identity

One-way between-groups ANOVAs were conducted to compare the mean scores for

male faculty, female faculty, and trans- or non-cis-gender faculty on the total SCII and the four

factors. For the total SCII mean score, the overall F for the one-way ANOVA was not

statistically significant (F (3, 81) = .76, p = .519). For Developmental Leadership, the overall F

for the one-way ANOVA was not statistically significant (F (3, 81) = 1.21, p = .310). For

Support for Innovation, the overall F for the one-way ANOVA was not statistically significant

(F (3, 81) = 2.45, p = .070). For Resource Availability, the overall F for the one-way ANOVA

was not statistically significant (F (3, 81) = .31, p = .820). For Supportive Leadership, the overall

F for the one-way ANOVA was not statistically significant (F (3, 81) = 2.56, p = .061).

Table 4.7 summarizes the ANOVA results for mean comparisons by gender identity.

Table 4.7

ANOVA Mean Score Comparisons by Gender

Perceptions of factors of departmental climate	Male	Female	Trans or non-cisgender	Prefer not to respond	F	p
	M (SD)	M (SD)	M (SD)	M (SD)		
Total SCII score	3.27 (.60)	3.25 (.58)	3.10 (.24)	2.89 (.63)	.76	.519
Developmental Leadership	3.60 (.70)	3.32 (.87)	3.43 (.90)	3.00 (.86)	1.21	.310
Support for Innovation	3.28 (.74)	3.70 (.75)	3.19 (1.79)	3.12 (.62)	2.45	.070
Resource Availability	3.06 (.77)	3.15 (.63)	3.30 (.82)	2.93 (.82)	.31	.820
Supportive Leadership	3.03 (.79)	2.66 (.86)	2.00 (.72)	2.33 (.65)	2.56	.061

Note. * *p* < .05; ** p < .01; *** p < .001.

Race/Ethnicity

An independent-samples *t*-test was conducted to compare the total SCII score for white and non-white faculty. An independent-samples *t*-test was conducted to compare the total SCII score for white and non-white faculty. There was no significant difference in scores for white faculty (*M* = 3.16, *SD* = .57) and non-white faculty (*M* = 3.20, *SD* = .55; *t* (74) = -1.57, *p* = .120).

Next, independent samples *t*-tests were conducted for to compare the scores of white and non-white faculty on Developmental Leadership, Support for Innovation, Resource Availability, and Supportive Leadership. There was no significant difference in scores on Developmental Leadership for white faculty (*M* = 3.36, *SD* = .80) and non-white faculty (*M* = 3.76, *SD* = .93; *t* (74) = -1.32, *p* = .190). There was no significant difference in scores on Support for Innovation for white faculty (*M* = 3.49, *SD* = .86) and non-white faculty (*M* = 3.75, *SD* = .54; *t* (74) = -.85, *p* = .400). There was no significant difference in scores on Resource Availability for white faculty (*M* = 3.10, *SD* = .66) and non-white faculty (*M* = 3.28, *SD* = .78; *t* (74) = -.73, *p* = .465). There was no significant difference in scores on Supportive Leadership for white faculty (*M* = 2.67, *SD* = .84) and non-white faculty (*M* = 3.25, *SD* = .81; *t* (74) = -1.85, *p* = .068).

Table 4.8 summarizes the results of these *t*-tests comparing the mean scores of white and non-white faculty. Figure 4.3 illustrates the mean score comparisons for white and non-white faculty.

Table 4.8

t-Test Comparison of White and Non-White Faculty Perceptions of Climate

Perceptions of factors of departmental climate	White Faculty (n = 68)		Non-White Faculty (n = 8)		t (74)	p
	M	SD	M	SD		
Total SCII Score	3.20	.55	3.53	.70	-1.57	.120
Developmental Leadership	3.36	.80	3.76	.93	-1.32	.190
Support for Innovation	3.49	.86	3.75	.54	-.85	.400
Resource Availability	3.10	.66	3.28	.78	-.73	.465
Supportive Leadership	2.67	.84	3.25	.81	-1.85	.068

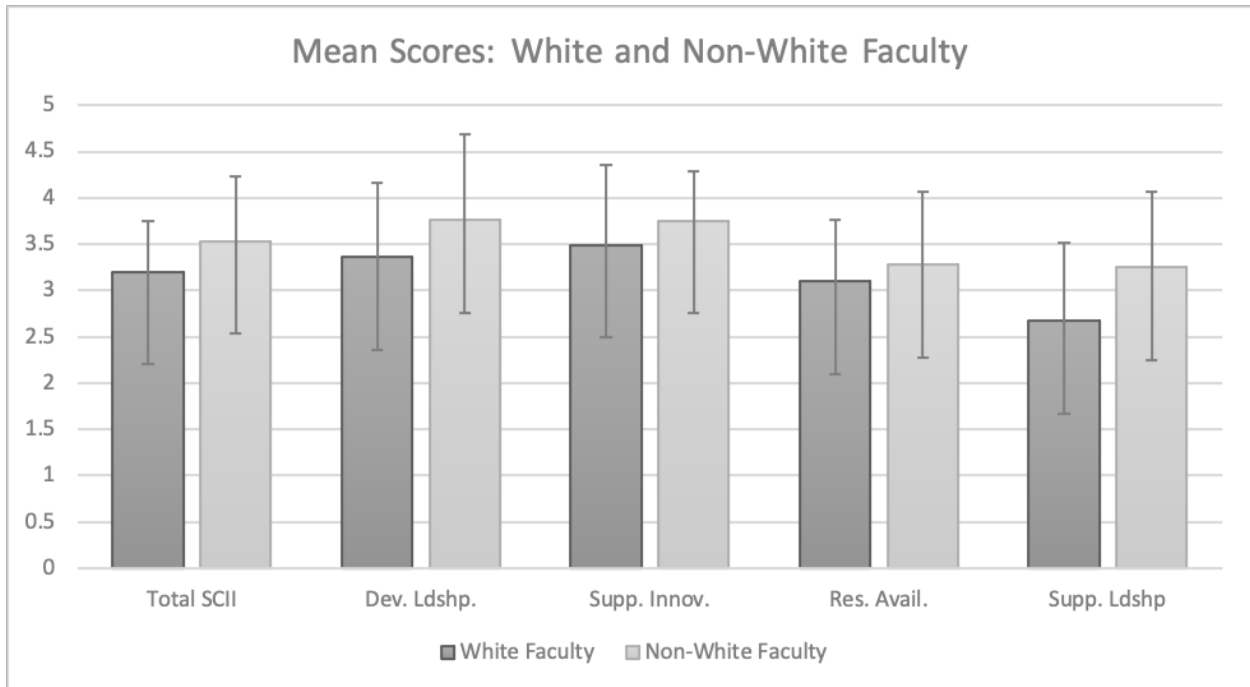*Note.* * $p < .05$; ** p < .01; *** p < .001.

Figure 4.3

Figure 4.3. Mean scores of white and non-white faculty.

Years of Teaching Experience

One-way between-groups ANOVAs were conducted to compare the mean scores for faculty with different years of teaching experience on the total SCII and the four factors. For the total SCII score, the overall F for the one-way ANOVA was statistically significant (F (3, 83) = 5.27, p = .002). All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty with 0-7 years of teaching experience (M = 3.37, SD = .54) had significantly higher perceptions of overall climate for instructional improvement than faculty with 16-20 years of teaching experience (M = 2.89, SD = .61). Faculty with 21 or more years of teaching experience (M = 3.57, SD = .51) had significantly higher perceptions of overall climate for instructional improvement than faculty with 8-15 years of teaching experience (M = 3.10, SD = .54) and faculty with 16-20 years of teaching experience (M = 2.89, SD = .61). The effect size, eta squared, was strong, .16.

For Developmental Leadership, the overall F for the one-way ANOVA was statistically significant (F (3, 83) = 3.35, p = .023). All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty with 21 or more years of teaching experience (M = 3.78, SD = .71) had significantly higher perceptions of Developmental Leadership than faculty with 16-20 years of teaching experience (M = 3.04, SD = .70). The effect size, eta squared, was moderate, .11.

For Support for Innovation, the overall F for the one-way ANOVA was statistically significant (F (3, 83) = 3.72, p = .015). All possible pairwise comparisons were made using the Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty with 21 or more years of teaching experience (M = 3.88, SD = .78) had significantly higher perceptions of

Support for Innovation than faculty with 16-20 years of teaching experience (M = 3.04, SD =

.87). The effect size, eta squared, was moderate, .12.

For Resource Availability, the overall F for the one-way ANOVA was not statistically

significant (F (3, 83) = 1.98, p = .124).

For Supportive Leadership, the overall F for the one-way ANOVA was statistically

significant (F (3, 83) = 3.89, p = .012). All possible pairwise comparisons were made using the

Tukey HSD test. Based on this test (using an alpha = .05), it was found that faculty with 0-7

years of teaching experience (M = 3.01, SD = .81) had significantly higher perceptions of

Supportive Leadership than faculty with 8-15 years of teaching experience (M = 2.40, SD = .86).

Faculty with 21 or more years of teaching experience (M = 3.08, SD = .77) also had significantly

higher perceptions of Supportive Leadership than faculty with 8-15 years of teaching experience

(M = 2.40, SD = .86). The effect size, eta squared, was moderate, .12.

Table 4.9 summarizes the ANOVA results for mean comparisons by years of teaching

experience. Figure 4.4 illustrates the mean score comparisons for faculty with different years of

teaching experience.

Table 4.9

ANOVA Mean Score Comparisons by Years of Teaching Experience

Perceptions of factors of departmental climate	Years of Teaching Experience					
	0-7 years	8-15 years	16-20 years	21+ years		
	M (SD)	M (SD)	M (SD)	M (SD)	F	p
Total SCII score	3.37 (.54)	3.10 (.54)	2.89 (.61)	3.57 (.51)	5.27	.002**
Developmental Leadership	3.58 (.73)	3.23 (.91)	3.04 (.70)	3.78 (.71)	3.35	.023*
Support for Innovation	3.64 (.54)	3.46 (.84)	3.04 (.87)	3.88 (.78)	3.72	.015*
Resource Availability	3.15 (.76)	3.09 (.66)	2.81 (.73)	3.38 (.56)	1.98	.124
Supportive Leadership	3.01 (.81)	2.40 (.86)	2.57 (.70)	3.08 (.77)	3.89	.012*

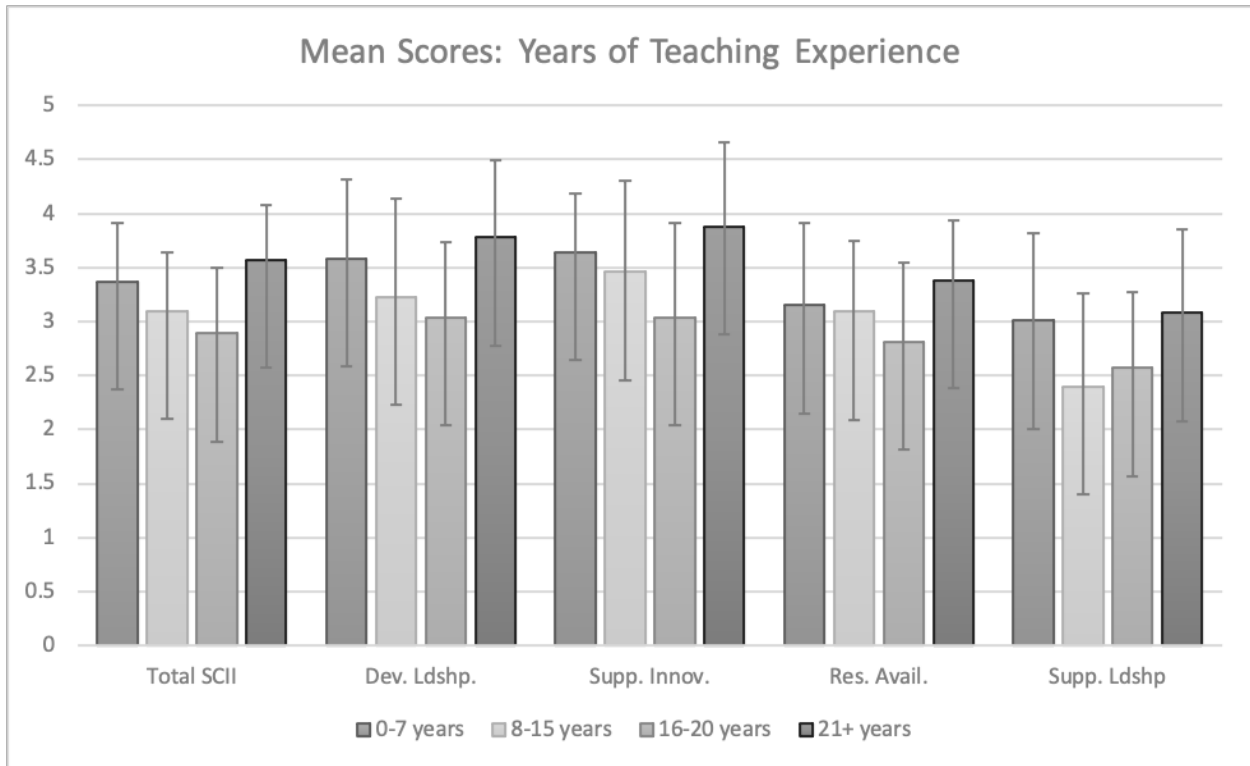*Note.* * $p < .05$; ** p $< .01$; *** p $< .001$.

Figure 4.4

Figure 4.4. Mean scores by years of teaching experience.

Research Question 3: Multivariate Analysis of Variance

As described in the previous section, independent samples *t*-tests were conducted to compare the scores on the overall SCII and the four factors (Developmental Leadership, Support for Innovation, Resource Availability, and Supportive Leadership) for full-time and part-time faculty. Only one statistically significant result was found, with full-time faculty reporting lower perceptions of Resource Availability than part-time faculty. Table 4.6 summarizes the results of the *t*-tests.

In order to further assess differences in means between full-time and part-time faculty, a one-way multivariate analysis of variance (MANOVA) was conducted. While the *t*-tests examined each dependent variable in isolation, MANOVA tests the dependent variables in combination with each other (Mertler & Reinhart, 2017). Prior to conducting the MANOVA, data were checked for multivariate outliers, normality, linearity, multicollinearity, and homogeneity of variance-covariance. Two extreme multivariate outliers were detected and excluded from analysis.

MANOVA results revealed significant difference between full-time and part-time faculty on the dependent variable Resource Availability [Wilks' Λ = .787, $F(4, 79)$ = 5.35, p = .001, multivariate η^2 = .213]. Analysis of variance (ANOVA) was conducted on the Resource Availability variable as a follow-up test to MANOVA. Faculty rank differences were significant for perception of Resource Availability [$F(1,82)$ = 9.69, p = .003].

Summary

This chapter presented the results of the data analyses used to answer the three research questions of this study. Exploratory factor analysis, used to answer Research Question 1, led to the identification of four factors aligned with transformational leadership as an antecedent of

change-oriented organizational citizenship behavior (López-Domínguez et al., 2013). These four

factors were named Supportive Leadership, Support for Innovation, Resource Availability, and

Developmental Leadership.

Research Question 2 was addressed using comparison of mean results. One statistically

significant difference was found between full-time and part-time faculty; full-time faculty

reported significantly lower perceptions of Resource Availability than part-time faculty.

Statistically significant differences among academic divisions were also found: faculty in the

Communication and Social Sciences division had significantly higher perceptions of Resource

Availability than faculty in the Aerospace and Advanced Manufacturing Careers division and the

Math and Sciences division. Faculty in the Health Sciences and Public Safety division had

significantly higher perceptions of Supportive Leadership than faculty in the Transitional Studies

division. No significant differences were found for gender or race/ethnicity.

Statistically significant differences were found for years of teaching experience: faculty

with 0-7 years of teaching experience had significantly higher perceptions of overall climate for

instructional improvement than faculty with 16-20 years of experience, and significantly higher

perceptions of Supportive Leadership than faculty with 8-15 years of experience. Faculty with 21

or more years of experience had significantly higher perceptions of overall climate for

instructional improvement than faculty with 8-15 years and 16-20 years of experience. They also

had significantly higher perceptions of Developmental Leadership and Support for Innovation

than faculty with 16-20 years of experience, and higher perceptions of Supportive Leadership

than faculty with 8-15 years of experience.

Research Question 3 was addressed with MANOVA, confirming the one statistically

significant difference between full-time and part-time faculty on the Resource Availability

factor. The following chapter provides a discussion of the results, draws conclusions from the

findings, identifies implications for policy and practice, and recommends directions for future

research.

Chapter 5: Discussion and Conclusions

The purpose of this chapter is to identify and discuss key findings, suggest directions for future research, and identify implications for policy and practice. This chapter begins with a summary of the study findings. The summary is followed by a discussion of key findings and their implications. Then, directions for future research related to this study are suggested. Finally, the implications of this study's results for both practice and policy are discussed.

Summary of the Study

The purpose of this study was to assess the perceptions of community college faculty regarding departmental climate for instructional change. As community colleges attempt to implement large-scale change initiatives that impact instructional approaches and require high-quality classroom instruction, college leaders must engage faculty in these efforts. At the same time, community colleges increasingly rely on part-time faculty to provide the majority of instruction (CCCSE, 2014; GAO, 2017). The frequent exclusion of part-time faculty from shared governance and decision-making processes can impede colleges' ability to fully involve all faculty in change efforts (CCCSE, 2019; Gappa et al., 2007; GAO, 2017; Jenkins, 2011). Any broad-scale change at a community college requires faculty engagement, and instruction-related change requires a climate that is conducive to instructional improvement.

This study addressed a gap in the existing literature by focusing on the quantitative assessment of perceptions of part-time faculty in Washington State regarding climate for instructional change. Prior work on organizational change in higher education, and faculty stakeholders in that change, includes a number of qualitative case studies (e.g. Boyce, 2003; Goldfien & Badway, 2015; Kezar, 2013a; Smulowitz, 2014) and few quantitative studies. Additionally, there were few studies focusing on the role of part-time faculty stakeholders in

institutional change even though they make up significant numbers of community college faculty (CCCSE, 2014). Finally, the perceptions and experiences of part-time faculty themselves have been examined in very few studies, and those were qualitative (Coulter, 2016; Gerhard & Burn, 2014; Jolley et al., 2014).

Using the Survey of Climate for Instructional Improvement ([SCII], Walter et al., 2015, 2018), this study addressed those gaps in the literature by examining the perceptions of climate for teaching improvement among full-time and part-time faculty at a community college in Washington State. The study also examined whether there were significant differences in perceptions of climate for instructional change between full-time and part-time faculty. This study used the SCII with a new population, that of community college faculty. The sample included faculty employed at a single institution in Washington State.

Discussion of Findings

This section summarizes and discusses the key findings of the study: the emergence of four factors different from those identified in previous SCII research, differences in perceptions of resource availability between full- and part-time faculty, differences in perceptions of climate among faculty with different years of teaching experience, and differences in perceptions of climate between white and non-white faculty. This section also discusses the lack of representativeness of the sample to the population of Washington State community college faculty.

Emergence of Factors

The primary finding from this study was the emergence of four factors aligned with the leadership antecedents of change-oriented OCB. Results of the EFA indicated that the SCII items continued to be reliable and valid for this population of faculty; however, the factors that were

identified differed from those found in previous research using the SCII. Each of the factor

solutions explored during data analysis resulted in a leadership-related factor that explained the

majority of the variability. The four-factor solution that was selected as the best fit for the data

produced four factors that mapped onto one of the theoretical frameworks used for this study,

change-oriented OCB (López-Domínguez et al., 2013). The four factors identified in this study

are Developmental Leadership, Support for Innovation, Resource Availability, and Supportive

Leadership.

The SCII was developed based largely on the conceptual framework of Gappa et al.'s

(2007) essential elements of the faculty work experience. This framework views respect as the

primary, necessary element for building a growth- and success-oriented work environment for

faculty. The five constructs identified and used in previous SCII research, leadership,

collegiality, resources, organizational support, and respect for teaching, aligned with Gappa et

al.'s (2007) essential elements and were informed by other models and research. This study

contributed to the body of SCII research by providing additional validation data with a new

population, community college faculty.

The four factors identified in this study maintain that connection to the faculty-focused

work of Gappa et al. (2007) and also align with the organizational citizenship behavior research

of López-Domínguez et al. (2013). While the work of López-Domínguez et al. (2013) does not

appear to have been used previously by researchers in the field of higher education, the four

antecedents of change-oriented OCB identified by the authors make a direct connection between

transformational leadership, organizational climate, and change.

The first factor, Developmental Leadership, was defined by López-Domínguez et al.

(2013) as leadership that contributes to employees' self-confidence and personal development,

and that leads them to go beyond expectations. Gappa et al. (2007) identified professional growth as one of the essential elements of faculty work, defining it as "opportunities that enable faculty members to broaden their knowledge, abilities, and skills, to address challenges, concerns, and needs, and to find deeper satisfaction in their work" (p. 141). SCII items that loaded with this factor included items related to the chair's vision for the department, respect for teaching as part of academic work, and the chair's encouragement of instructors to go beyond non-traditional approaches. This factor overlapped a great deal with the Leadership factor from prior SCII research, and it accounted for over 32% of the total variance accounted for by the four-factor model identified in this study.

The second factor, Support for Innovation, addresses the protection and encouragement of employees' risk-taking in López-Domínguez et al.'s (2013) model. This factor appears to align with the essential element of academic freedom and autonomy identified by Gappa et al. (2007), and incorporates items that grouped with collegiality, respect for teaching, and organizational support in prior SCII research.

The third factor, Resource Availability, includes the social and material resources that support change and innovation (López-Domínguez et al., 2013). In Gappa et al.'s (2007) framework, the tools necessary to do one's job are included in the element of employment equity, and flexibility in work arrangements was included as another essential element. This factor aligned strongly with the resources factor from previous SCII research.

The fourth factor, Supportive Leadership, involves taking employees' needs into consideration in decision-making, and was posited to have less of an impact on change-oriented OCBs than other factors by López-Domínguez et al. (2013). The essential element of employment equity includes fair treatment and equitable policies in Gappa et al.'s (2007)

framework. This factor included items that grouped with respect for teaching, collegiality, and organizational support in prior SCII research, and that address formal structures and interactions around teaching.

The authors and users of the SCII have drawn attention to the fact that their instrument incorporated elements of frameworks from different fields of study, and that "postsecondary education researchers are yet to rally behind a cohesive model for explaining adoption of active learning pedagogies" (Walter et al., 2018, p. 26). The literature review of this study, too, identified over 20 different frameworks used in research on change in higher education. The alignment of the factors identified in this study with the change-oriented antecedents of organizational citizenship behavior identified by López-Domínguez et al. (2013) support the use of that framework for studying community college faculty.

This finding supports a focus on department-level leadership as a critical factor in developing a climate conducive to instructional change. For part-time faculty especially, the department and department chair are likely to be the primary points of contact with the institution, and are therefore particularly salient to the ability of part-time faculty to provide quality learning experiences and to their inclusion in change efforts (Kezar, 2013a, 2013b; Korgan, 2016).

Difference in Perception of Resource Availability between Full- and Part-Time Faculty

This study found only one statistically significant difference between full-time and part-time faculty perceptions of departmental climate for instructional change: full-time faculty indicated a lower perception of Resource Availability than part-time faculty. While this aligns with previous SCII research, which also found full-time faculty reporting lower perceptions of Organizational Support than part-time faculty (Walter et al., 2018), and one additional study

finding more positive perceptions of institutional support (Buzan, 2017), it is still an unexpected finding based on the literature and the generalized experiences of part-time faculty.

Generally, the reliance on part-time faculty in higher education is criticized for inequities including a lack of professional development opportunities and poor working conditions for part-time faculty (Kezar & Maxey, 2016). Institutionalization of policies and practices that support part-time faculty is rare (Gray, 2017; Kezar & Sam, 2013). In that context, part-time faculty reporting higher perceptions of resource availability than full-time faculty is unexpected. This could be explained by different expectations of resources; it is possible that the full-time faculty expect to have more resources available, and are therefore more critical of what is provided.

Nonresponse error provides another possible explanation for this finding. With a low overall response rate, and part-time faculty underrepresented among respondents, it is likely that more engaged and satisfied part-time faculty were more likely to complete the survey. It is also possible that this institution has done an especially good job of supporting its part-time faculty and providing them with the resources that they need to thrive. The institution offers professional development opportunities, including an Associate Faculty Academy, to its part-time faculty through its Associate Dean for Teaching and Learning.

Differences by Years of Teaching Experience

This study found statistically significant differences in perceptions of climate for instructional improvement among groups of faculty with different years of teaching experience. Faculty with 0-7 years of teaching experience had significantly higher perceptions of overall climate for instructional improvement than faculty with 16-20 years of teaching experience, and significantly higher perceptions of Supportive Leadership than faculty with 8-15 years of experience. Faculty with 21 or more years of teaching experience had higher perceptions of

overall climate for instructional improvement than faculty with 8-15 and 16-20 years of experience, higher perceptions of Developmental Leadership and Support for Innovation than those with 16-20 years of experience, and higher perceptions of Supportive Leadership than faculty with 8-15 years of teaching experience.

Even when the differences were not statistically significant, the mean scores for faculty with 0-7 years of experience and 21 or more years of experience were consistently higher than those of faculty with 8-15 and 16-20 years of experience. I hypothesize that faculty newer to teaching are more likely to be provided with, and access, resources and support. For example, it is likely that they are offered professional development designed for those new to the field, may be connected with formal or informal mentors, and may be engaged in activities related to promotion. At the other end of the range of experience, faculty who have remained in the profession for over 20 years may have stayed because they feel that they have the respect, support, and resources needed to continue to do the job. This group of faculty may also have been able to find meaning and benefit in engaging in innovation and instructional improvements in order to remain satisfied with their work in the long term.

Prior research has indicated that faculty throughout the institution need to be engaged in change efforts and initiatives in order for those efforts to be successful (Goldfien & Badway, 2015; Haviland, 2014; Moore, 2015; Owen & Demb, 2004; Vertin, 2001). If mid-career faculty are disengaged or feel unsupported and have low perceptions of climate for instructional change, initiatives related to instruction may be more likely to fail.

Differences in Mean Scores between Non-White and White Faculty

Although no statistically significant differences were found between white and non-white faculty in this study, the mean perceptions of overall climate for instructional improvement and

the four factors were consistently higher for non-white faculty. Like part-time faculty, non-white faculty were underrepresented in the sample and nonresponse error might explain or partially explain this finding (more satisfied and engaged non-white faculty may have been more likely to respond). It is also possible that non-white faculty have access to additional supports and resources, such as mentoring, due to concerns around the low numbers of non-white faculty in Washington State community colleges, and the desire to retain those faculty. For example, while not an institutional offering, there is a statewide Faculty of Color Cross-Institutional Mentorship Program (SBCTC, 2020b).

Representativeness of Findings

Because the respondents in this study were not representative of faculty at the institution or across Washington State, the findings may not be representative of the broader population of community college faculty. In particular, part-time faculty and faculty of color were two groups that were underrepresented in the sample (see Table 4.1). In previous SCII research, women had significantly lower mean scores than men, and graduate students had significantly lower mean scores than full-time and part-time faculty, but part-time faculty and faculty of color were not identified as groups with significantly different scores than full-time faculty or white faculty (Walter et al., 2018).

Research on part-time faculty has highlighted the importance of institutional and departmental policies and practices that support part-time faculty (e.g. Bickerstaff & Chavarín, 2018; Curtis et al., 2016; Gray, 2017; Kezar, 2013b; Kezar & Sam, 2013). It is possible that the institution in this study has successfully created a climate in which all faculty feel valued and supported regardless of their contractual status, in alignment with the framework of essential elements of the faculty work experience proposed by Gappa et al. (2007). Other institutions in

Washington State may vary from this one, and the findings would likely vary across a sample that represents faculty within and across institutions.

Directions for Future Research

The current study identified four factors aligned with transformational leadership-related antecedents of change-oriented OCB. There is a rich depth of future research opportunities to follow up on this work and provide a clearer picture of the intersections of institutional change, departmental climate, department leadership, and faculty status. This section makes recommendations for future research: identifying a representative sample of faculty, conducting a cluster analysis to identify groups of interest, developing a mixed-methods study, and using the SCII to evaluate faculty perceptions before and after an instruction-related change.

Representative Sample

First, a larger-scale community college study of the SCII and the four factors identified in this study would provide a more complete picture of the community college faculty population. The low response rate and nonrepresentative sample in this study limits the generalizability of the results, and a multi-institution or statewide study might produce more meaningful or actionable results. With a more representative sample and a better response rate, future research might indicate SCII items that are candidates for removal from the instrument when used with community college faculty populations, especially those related to resources that may be available to university faculty but not community college faculty.

Additionally, a study with a more representative sample of community college faculty in Washington State would permit for deeper analysis of the interactions of faculty status with other demographic variables. This study was unable to collect department-level information from faculty and instead had to collect broader division-level affiliation due to potential identifiability

concerns. Similarly, low numbers of responses from non-white faculty limited comparisons by race/ethnicity. Additional demographic information could also be collected from a larger sample. The original SCII demographic questions included questions regarding primary teaching modality (online, hybrid, or face-to-face) as well as faculty members' teaching backgrounds (Walter et al., 2018). Those questions had to be excluded from the current study due to the size of the institution and potential issues of identifiability. However, a statewide study would permit the inclusion of those questions.

In addition to creating opportunities to improve the instrument and collect better demographic information for analysis, a more representative sample would provide better data to account for differences in faculty perception and experience. In the current study, several analyses showed large standard deviations from the mean, suggesting that some faculty rated items or factors much lower or higher than others. Ensuring that the sample is representative of all groups of faculty, and is large enough to collect demographic data without risking identification of participants, would provide researchers with better information regarding the perceptions of climate for instructional change among groups of faculty.

Cluster Analysis

Collecting data from a representative sample of faculty at multiple institutions would also allow for a cluster analysis to be conducted to identify additional, more specific groups of interest. A cluster analysis would identify patterns of responses among groups of participants by grouping similar responses into categories (Bible, Datta, & Datta, 2013). While this study compared responses by gender, race/ethnicity, years of teaching experience, and faculty status, a cluster analysis would identify more specific groups. For example, if mean scores of mid-career non-white part-time faculty were low on the Developmental Leadership factor, that information

could direct follow-up work such as developing strategic supports for that population of faculty

or identifying institutional barriers or biases impacting their experiences of climate within the

department or institution.

Mixed Methods

Future research should also incorporate some open-ended questions about faculty

behavior and openness to change. While this quantitative study addressed a gap in the literature,

a mixed methods study that follows up on the SCII items with additional open-ended questions

probing actual behavior would inform those interested in climate for instructional change about

how faculty perceptions connect to their engagement and behaviors around change. In

combination with a cluster analysis of the data, a mixed methods study could be used to follow

up with individuals or groups of faculty who scored particularly high or low on the survey.

Interviewing those faculty would provide researchers with more information about what is

shaping their experiences and perceptions. Additionally, interviewing campus administrators and

chairs about how faculty are supported and what campus efforts exist to enhance climate and

promote instructional change would add another dimension to the results and identify any gaps

between administrator and faculty perceptions.

Change Implementation

Finally, I recommend a multi-stage study that uses the SCII as a pre- and post-survey for

a community college embarking on a large-scale instructional change. Conducting the survey

prior to implementation would enable the college to identify divisions, departments, or groups of

faculty that may need additional resources or support in order to successfully move forward with

change implementation. Re-administering the survey as a post-test following implementation of

the change would allow for a comparison of perceptions of climate before and after the change.

This could identify groups that continue to need support, provide information about change

implementation and remaining work to be done, and identify how faculty perceptions may have

shifted over the course of the change implementation. This could be done with the institution in

the current study as a way to gather information related to faculty experiences of climate

following the COVID-19 pandemic since the data collection for this study was completed shortly

before the major changes initiated by that event.

Implications for Practice and Policy

While the most important finding from this study relates to theory, there are several

implications for practice and policy. As the numbers of part-time faculty grow, and community

colleges (among other institutions of higher education) rely on these faculty to provide the

majority of student learning experiences, calls have emerged to carefully consider the

implications of these contingent contracts and improve the working conditions of these faculty

(Bailey et al., 2015; CCCSE, 2014; Gappa et al., 2007; Lee, 2015). This study identified four

factors that can be practically improved at the institutional and departmental levels to ensure that

all faculty are able to not only perform the basic functions of their role, but also go beyond the

minimum to engage in instructional improvements that enhance student success. Although this

study did not find that part-time faculty had lower perceptions of climate than full-time faculty,

there were significant differences among academic divisions and faculty years of teaching

experience that lead to recommendations for practice and policy.

Support for Department-Level Leadership

The role of department chair is crucial to climate for instructional improvement. Even if

financial resources are limited, this study indicates a number of practices that are within the

control of the department. Developmental leadership qualities such as encouraging instructors to

go beyond non-traditional approaches to teaching, implementing teaching-related policies

consistently and transparently, and being receptive to ideas about how to improve teaching in the

department rely on the department chair. Similarly, support for innovation, resource availability,

and supportive leadership all include concrete measures that can be acted upon by department-

level leaders. At the same time, broad-scale initiatives such as guided pathways require work and

engagement across departments and divisions. Chairs can be instrumental in making those

connections, and in finding and recommending ways to support faculty at the institutional level.

At the same time, given their importance, chairs are likely to need institutional support to

be fully effective in their roles. Institutions should provide chairs and other faculty with a clear

definition of the role of the chair at the institution and be transparent about how the work of the

chair is evaluated. Additionally, practitioners are encouraged to develop and provide a set of best

practices for department chairs to enhance communication, clarity, and expectations regarding

the role. These best practices and expectations should include an emphasis on the instructional

improvement of departmental faculty. Whether chairs are hired into their roles or elected by their

peers, the position description should include an emphasis on respect for teaching and a

commitment to improving instruction as required qualities of the chair. Emphasizing aspects of

climate for instructional improvement through a set of chair best practices, clear chair job

descriptions, and transparent chair evaluation processes could provide chairs the support they

need to be transformational leaders.

In addition to the importance and needs of department chairs, this study's findings

indicate that newer faculty (those with 0-7 years of experience) and long-term faculty (with 21 or

more years of experience) have higher perceptions of climate for instructional change than mid-

career faculty. Department leaders could use this information to pay attention to the needs of

faculty in the middle stages of their careers and work with them to develop supports and resources that they need in order to feel supported. College and division administrators also need to ensure that resources and opportunities for professional development are structured to benefit faculty with different amounts of experience.

Using the Four Factors to Improve Climate

In addition to individual chairs working on their own to improve departmental climate for instructional change, colleges and state systems can consider policy changes at the institutional and state levels to support department-level leaders. The recommendations of the AACC (2012) included incentivizing change through public and private investment, and this study supports that recommendation. Professional development opportunities often exist for faculty and for executive-level leaders, but are rare for department chairs (Cohen et al., 2014). Evaluating the need to provide training and development for the key mid-level chairs and heads of departments could significantly impact faculty perceptions of climate and their willingness and ability to engage in change initiatives and instructional improvement.

Faculty perceptions of climate should be built into the evaluation of chairs and deans. Faculty could complete the SCII as part of an evaluation cycle, and chairs and deans could use that information to identify areas of improvement and set goals. For example, Math and Sciences faculty in this study reported lower perceptions of Resource Availability than faculty in several other divisions. Chairs and deans could use this information to follow up with faculty in that area and identify specific resource needs. If faculty report not having the support they need to implement educational technologies, for example, professional development could be developed to address that need.

More broadly, the four factors identified in this study could be used in program review. Because there were significant differences among divisions in faculty perceptions of climate, the factors could be used as the basis for identifying areas for improvement, resource needs, or leadership needs within a program or division. Building the factors into a program review process would allow program leaders to set goals and target activities around improving climate for instructional improvement. For example, in this study the faculty in the Transitional Studies division reported lower perceptions of Supportive Leadership than faculty in other divisions. Items grouped with the Supportive Leadership factor include "Teaching effectiveness is evaluated fairly" and "Evidence of effective teaching is valued when making decisions about continued employment and/or promotion." If this information were used as an element of program review, the leaders of the Transitional Studies division could review their faculty evaluation processes for consistency and fairness.

Additionally, policy makers need to ensure that all community colleges have the funding and resources necessary to support and engage all faculty in order to drive the instructional change that is necessary to important changes and reforms. While this study supports the need for investment in improving department- and division-level leadership, many colleges will not be able to make that investment without additional resources and support. Specific state-wide policies and investments could include creating professional development opportunities and evaluation processes for department/division chairs, incorporating support and training for chairs into instruction-related change initiatives such as guided pathways, and even recommending or requiring institutions to evaluate faculty perceptions of climate for instructional change and use the results in strategic planning and improvement efforts.

Implications in Relation to the COVID-19 Pandemic

Shortly after completion of data collection for this study, institutions of higher education were thrown into turmoil by the COVID-19 pandemic. Within Washington State, every community college pivoted abruptly to remote instruction with very short notice. Faculty and students had to adjust and make significant changes to coursework with varying degrees of support. This has been a broad-scale, instruction-related institutional change that was completely unplanned and unanticipated. The findings from this study could shed light on how different groups of faculty may have responded and adapted to the changes driven by the pandemic. Groups who reported lower perceptions of different factors of climate prior to COVID-19 may benefit from targeted check-ins to identify needs for support now. The role of department and division administrators is likely to be even more crucial to faculty success, and those mid-level administrators can support and advocate for their faculty. As noted in the research recommendation section above, the SCII could be re-administered to the faculty in the institution of this current study to compare their perceptions of climate for instructional change after COVID-19 to their perceptions this past fall and winter.

Summary and Conclusion

Higher education institutions continue to rely on part-time faculty to educate the majority of undergraduates. At the same time, community colleges contend with numerous large-scale changes that require instructional improvement to support better student outcomes. Therefore, it is imperative that all faculty have the support and resources necessary to not only do their jobs, but to excel in them.

These resources and support can be significantly influenced at the level of the academic department by those with whom faculty interact the most: their colleagues and their mid-level leaders. The factors that relate to perceptions of climate for instructional change are within our

control: developmental leadership, support for innovation, resource availability, and supportive leadership. Community colleges require investment, and part-time faculty require support and respect. Broad-scale instruction-related change cannot happen without the engagement and involvement of all faculty.

My primary work identity is that of practitioner, not researcher. While conducting a full research study from start to finish was not my passion, the process enabled me to deepen my understanding of the complexities of research and data analysis. I was also able to connect my professional interests to the research I conducted. This project reflects my beliefs in the importance of all faculty in community college change, and the need to provide them with support and resources so that they can in turn provide the best possible educational experiences for students.

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APPENDICES

Appendix A

Survey of Climate for Instructional Improvement (SCII)

INFORMATION
This survey was designed by researchers at Western Michigan University to collect data about the climate for teaching improvement within academic departments.

INSTRUCTIONS
The survey consists of 30 statements plus 5 demographic questions. It should take about 10 minutes to complete. Each section of the survey has a stem phrase related to a list of statements. Please circle the number that corresponds to the degree of your agreement with each statement.

In the survey, the term "instructor" refers to anyone who teaches in the department, including full-time faculty, part-time faculty, and/or graduate students.

0 - Strongly Disagree	1 - Disagree	2 - Slightly Disagree
3 - Slightly Agree	4 - Agree	5 - Strongly Agree

Instructors in My Department…	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
S1. Frequently talk with one another.	0	1	2	3	4	5
S2. Discuss the challenges they face in the class-room with colleagues.	0	1	2	3	4	5
S3. Share resources (ideas, materials, sources, technology, etc.) about how to improve teaching with colleagues.	0	1	2	3	4	5
S4. Aspire to become better teachers.	0	1	2	3	4	5
S5. Use teaching observations to improve their teaching.	0	1	2	3	4	5
S6. Value teaching development services available on campus as a way to improve their teaching.	0	1	2	3	4	5

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Instructors in My Department ARE…						
S7. "Ahead of the curve" when it comes to implementing innovative teaching strategies.	0	1	2	3	4	5
S8. Satisfied with their teaching workload.	0	1	2	3	4	5
S9. Assigned a mentor for advice about teaching.	0	1	2	3	4	5

**Instructors in my
department HAVE…**

S10. Adequate departmental funding to support teaching improvement.	0	1	2	3	4	5
S11. Adequate space to meet with students outside of class.	0	1	2	3	4	5
S12. Adequate time to reflect upon and make changes to their instruction.	0	1	2	3	4	5
S13. Considerable flexibility in the content they teach in their courses.	0	1	2	3	4	5
S14. Considerable flexibility in the way they teach their courses.	0	1	2	3	4	5
S15. The support they need to employ educational technologies in their classrooms.	0	1	2	3	4	5

STATEMENTS 16-22:
The following statements refer to the "department chair." Please respond to these statements in reference to the individual that is the formal leader of your department.

The Department Chair…	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
S16. Encourages instructors to go beyond traditional approaches to teaching.	0	1	2	3	4	5
S17. Has a clear vision of how to improve teaching in the department.	0	1	2	3	4	5
S18. Implements teaching-related policies in a consistent and transparent manner.	0	1	2	3	4	5
S19. Inspires respect for his/her ability as a teacher.	0	1	2	3	4	5
S20. Is receptive to ideas about how to improve teaching in the department.	0	1	2	3	4	5
S21. Is tolerant of fluctuations in student evaluations when instructors are trying to improve their teaching.	0	1	2	3	4	5
S22. Is willing to seek creative solutions to budgetary constraints in order to maintain adequate support for teaching improvements.	0	1	2	3	4	5

In My Department…	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
S23. New instructors are provided with teaching development opportunities and resources.	0	1	2	3	4	5
S24. Applicants for all teaching positions are required to provide evidence of effective teaching.	0	1	2	3	4	5
S25. Evidence of effective teaching is valued when making decisions about continued employment and/or promotion.	0	1	2	3	4	5
S26. Teaching effectiveness is evaluated fairly.	0	1	2	3	4	5
S27. Teaching is respected as an important aspect of academic work.	0	1	2	3	4	5
S28. All of the instructors are sufficiently competent to teach effectively.	0	1	2	3	4	5
S29. There are structured groups organized around the support and pursuit of teaching improvement.	0	1	2	3	4	5
S30. Instructors with a record of teaching excellence are financially rewarded (e.g., bonuses, raises, or similar).	0	1	2	3	4	5

Demographic Questions (modified from original SCII for this study)

31. Please indicate your faculty position.

[Associate Faculty, Senior Associate Faculty, Full-Time Temporary, Full-Time Probationary (tenure-track), Full-Time Tenured]

32. Please indicate your primary academic division.

[Aerospace and Advanced Manufacturing Careers, Arts and Learning Resources, Business and Applied Technology, Communication and Social Sciences, Health Sciences and Public Safety, Transitional Studies, Math and Sciences, Student Development]

33. What is your gender identity?

[male, female, trans or non-cisgender, other, prefer not to respond]

34. Please identify the racial or ethnic group with which you most identify.

[Asian, Black, Hispanic or Latino/a, Native American or Alaskan Native, Native Hawaiian or Pacific Islander, White, Multi-Ethnic, Other, Prefer not to respond]

35. How many years have you been teaching in higher education?

[scale]

Appendix B

Email Text to Accompany Survey Link

Subject: Request your participation in a survey on institutional climate

Dear [College] faculty member:

I am a graduate student in Oregon State University's doctoral program in Community College
Leadership, and I am writing to ask you to complete a brief survey about your perceptions of
institutional climate. For my dissertation research, I am studying how community college faculty
perceive climate for instructional change. I am especially interested in comparing the responses
of full-time and part-time faculty. All faculty members at [College] are invited and encouraged
to complete the survey.

The survey is short and should take less than 10 minutes to complete.

To begin the survey, please click this link: [ ].

The survey is confidential. Your participation is voluntary. If you have any questions before or
while taking the survey, please contact me, Lyn Eisenhour, at eisenhol@oregonstate.edu. You
may also contact my primary advisor, Dr. Gloria Crisp, at gloria.crisp@oregonstate.edu. This
study has been approved by the Institutional Research Boards of [College] and Oregon State
University with the working title, "Community College Faculty Perceptions of Climate for
Instructional Improvement."

Thank you very much.
Sincerely,
Lyn Eisenhour

Appendix C

IRB Approval from Oregon State University

Oregon State University
Research Office

Human Research Protection Program
& Institutional Review Board
B308 Kerr Administration Bldg, Corvallis OR 97331
(541) 737-8008
IRB@oregonstate.edu
http://research.oregonstate.edu/irb

Date of Notification	June 07, 2019		
Notification Type	Approval Notice		
Submission Type	Initial Application	Study Number	IRB-2019-0083
Principal Investigator	Gloria E Crisp		
Study Team Members	Eisenhour, Lyn		
Study Title	Community College Faculty Perceptions of Climate for Instructional Improvement		
Review Level	FLEX		
Waiver(s)	Documentation of Informed Consent		
Risk Level for Adults	Minimal Risk		
Risk Level for Children	Study does not involve children		
Funding Source	None	Cayuse Number	N/A

APPROVAL DATE: 06/06/2019   **EXPIRATION DATE:** 06/05/2024

A new application will be required in order to extend the study beyond this expiration date.

Comments: Waiver of documentation of informed consent under institutional policy.

The above referenced study was reviewed and approved by the OSU Institutional Review Board (IRB). The IRB has determined that the protocol meets the minimum criteria for approval under the applicable regulations, state laws, and local policies.

This proposal has not been evaluated for scientific merit, except to weigh the risk to the human subjects in relation to potential benefits.

Adding any of the following elements will invalidate the FLEX determination and require the submission of a project revision:

- Increase in risk
- Federal funding or a plan for future federal sponsorship (e.g., proof of concept studies for federal RFPs, pilot studies intended to support a federal grant application, training and program project grants, no-cost extensions)
- Research funded or otherwise regulated by a federal agency that has signed on to the Common Rule, including all agencies within the Department of Health and Human Services
- FDA-regulated research
- NIH-issued or pending Certificate of Confidentiality
- Prisoners or parolees as subjects
- Contractual obligations or restrictions that require the application of the Common Rule or which require annual review by an IRB
- Classified research
- Clinical interventions

Principal Investigator responsibilities:

- Keep study team members informed of the status of the research.
- Any changes to the research must be submitted to the IRB for review and approval prior to implementing the changes. Failure to adhere to the approved protocol can result in study suspension or termination and data stemming from protocol deviations cannot be represented as having IRB approval.
- Report all unanticipated problems involving risks to participants or others within three calendar days.
- Use only valid consent document(s).
- Submit project revisions for review prior to initiating changes.

Appendix D

Consent Form/First Screen of Survey

RESEARCH CONSENT FORM

Study Title: Community College Faculty Perceptions of Climate for Instructional Improvement
Researcher: Lyn Eisenhour (under supervision of Dr. Gloria Crisp, Oregon State University)

We are inviting you to take part in a research study.

Purpose: This study is about faculty perceptions of institutional climate. We are interested in how all faculty (both full-time and associate or part-time) perceive leadership, collegiality, resources, organizational support, and respect for teaching.

We are asking you if you want to be in this study because you are a faculty member at [College].

You should not be in this study if you are no longer teaching at [College] or if you are not teaching any classes this quarter.

Voluntary: You do not have to be in this study if you do not want to. You can also decide to be in the study now and change your mind later. You can stop taking the survey at any time.

Activities: The study activity is responding to a brief survey.

Time: Your participation in this study will last about 10 minutes.

Risks: The possible risks or discomforts associated with being in the study include discomfort from responding to questions about institutional climate. Additionally, it is possible that a data breach could expose survey responses.

Benefit: We do not know if you will benefit from being in this study. However, the study may provide information to community college administrators and policy-makers regarding how to improve aspects of institutional climate that benefit faculty.

Confidentiality: All data will be kept strictly confidential and will be reported only in aggregate form. Data will not be reported in such a way that the identities of respondents might be discerned. Results will be disseminated in a doctoral dissertation and may also be presented at higher education conferences or in academic papers. Aggregate results from the study will be available to interested participants.

Study contacts: We would like you to ask us questions if there is anything about the study that you do not understand. You can call Lyn Eisenhour at 425-352-8548 or email her at eisenhol@oregonstate.edu. You can also contact Gloria Crisp at 541-737-9286 or

gloria.crisp@oregonstate.edu. You may also contact the Institutional Review Board at [College] if questions arise during the course of the study.

- Yes, I consent to participate. [selecting this option enters the survey questions]
- No, I do not consent to participate. [selecting this option exits the survey]