Texas community college faculty attitudes and perceptions about professional development

by

Sharon Kay Geistman Hyak

B.S., University of Houston-Victoria, 2006
M.S., University of Nebraska, 2010

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Adult Learning and Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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**Abstract**

As community colleges focus on increasing accountability, a growing number of community colleges have implemented professional development programs. Studies have demonstrated the effectiveness of faculty professional development, yet faculty participation and attitude toward training may impede improvement efforts. Therefore, the purpose of this quantitative study was to increase understanding of Texas community college faculty attitudes and perceptions about faculty (teacher training) professional development.

This quantitative study identified faculty characteristics, such as teaching experience, level of teacher training received, and academic degree earned; as well as environmental factors including college culture, administrative support, colleague influence, funding, time availability, self-efficacy and faculty perceptions toward development activities. A Likert-style online survey was developed and administered at 14 Texas community campuses, where 997 faculty members participated. The faculty list included campus members that taught at least one course in a typical semester, including teaching administrators, deans, part-time faculty, and full-time faculty. The Likert items mostly consisted of five points based on the scales from "Strongly Disagree" to "Strongly Agree," or from "Never" to "Very Frequently." Other questions established participation in faculty development activities and demographic information such as teaching load, prior teacher training, academic degree earned, teaching discipline, teaching experience, and position at the college.

Survey data were analyzed using Excel and SPSS statistical software. One-way Analysis of Variance (ANOVA) and multiple regressions was performed to determine the

relationship among survey variables. A priori level of significance for all statistical analyses was set at an alpha level of 0.05. Participants included 997 Texas community college faculty members at 14 campuses.

Results indicated that (a) differences exist in the ways these various faculty groups experience and value training opportunities; (b) campus culture, administrative support, and funding, are statistically significant predictors of faculty member participation, attitudes, and perceptions; (c) faculty members' self-efficacy is significant in predicting attitudes about professional development; and (d) faculty beliefs in their teaching capacity influence their motivation and behavior in the classroom. The researcher recommends that leadership (a) legitimize professional development by promoting, supporting, and participating in strategically aligned programs; (b) evolve training strategies to incorporate diverse objectives, learning strategies, and shared culture for all generations and experience levels; (c) present training using best practices, reflection, and a comprehensive approach; and (d) model high-achieving systems of education. Several recommendations for future research include (a) continually and consistently collect and analyze data regarding faculty attitudes and faculty experiences; (b) evaluate how faculty development training affects student learning; (c) expand research to systems of education that reflect high-achieving models and alignment with the desired culture and strategic directions.

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Approved by:                                                    Approved by:
Co-Major Professor                                      Co-Major Professor
Dr. Margaretta Mathis                                  Dr. Terry Calaway

# Copyright

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# Dedication

This dissertation is dedicated to non-traditional adult learners.

*You can do this—we can do this together.*

# Chapter 1 - Introduction

Serving more than 12 million students each year (AACC 2019), community colleges have an undeniable impact on American higher education, state workforces, local communities, and the individuals they serve (D'Amico et al., 2019, p. 1).

As postsecondary education is crucial for employment in today's job market, community colleges are increasingly important as they provide affordable education and open admissions policies (Flynn et al., 2017). Accordingly, community college enrollment continues growing, enrolling nearly 50 percent of all postsecondary students by 2013 (American Association of Community Colleges [AACC], 2014). Community colleges serve a diverse student population representing various socioeconomic backgrounds, academic backgrounds, and education goals (AACC, 2018). Serving this diverse student population requires responsive faculty members, with the willingness to adopt new pedagogical approaches that address the needs of twenty-first-century students, and the ability to adapt to changing technology—all with an ever-shrinking budget (AACC, 2014).

State and federal appropriations continue to decrease, while the government, the public, and advocacy groups continue to call for increased accountability (Austin & Sorcinelli, 2013; Boggs & McPhail, 2016). With scarce funding available, many community colleges have, at best, formed grassroots faculty development programs. Many of these programs, not based on empirical data, are inconsistent, and, due to low faculty input, lack relevance. Faculty thus enter classrooms often unprepared to teach (Bailey et al., 2015).

Because of the importance of a well-trained and well-prepared faculty body to the success and mission of the community college, research addressing faculty development and the ability to handle the growing student body is necessary. "The faculty must be ready through ongoing enhancement of their abilities and intellect to answer their call to lead their prospective institutions through the morass of uncertainty brought about by cultural, national, and even worldwide current and future realities" (McKee & Tew, 2013, p. 3).

Additionally, a large percentage of community college faculty members are retiring or nearing retirement, and new faculty members must be recruited and trained (Latz & Rediger, 2015; Twombly & Townsend, 2008). Many of these new faculty members, due to cost-cutting or other measures, serve only a part-time role, leaving a shrinking number of full-time faculty to shoulder service to the college responsibilities. Full-time faculty members participate in shared governance, curriculum development, advising, and mentoring (Kezar et al., 2015). College responsibilities and guiding students to success are imperative to the college mission, yet, little time is left to develop teaching skills. Additionally, the "nature of the [adjunct] position makes it more difficult for these faculty members to be fully engaged in their departments or to take part in professional development opportunities available to full-time faculty" (Science Education Resource Center, 2019, p. para. 2). Thus, the faculty body is woefully unprepared for these tasks.

Traditionally, community college faculty members are experts in their respective fields; however, personal expertise is insufficient preparation to teach effectively (Levine, 2015). "One of the ironies of higher education is that the faculty, as a matter of practice

… are literally not trained to teach their own students" (Tinto & Pusser, 2006, p. 151). Within diverse classrooms, faculty members need strategies to respond to the multiplicity of their students' skills, backgrounds, and learning styles. Unfortunately, without effective faculty development programs, many faculty members attempt to develop and maintain their pedagogical skills through a series of trials and errors (Bailey et al., 2015), with student success dependent upon the outcomes. Gaining an understanding of pedagogy allows faculty to use more powerful methods for engaging students (Flynn et al., 2017). Anderson (2009) suggests, "teaching is about personal responsibility to the students, the community, the institution and the future of society" (p. 18).

The professional development spectrum is not limited to pedagogical training. In consort with classroom training, development programs need to address work-life balance, career advancement, and faculty contributions to institutional decisions (Kezar et al., 2015; Latz & Rediger, 2015). Sorcinelli et al. (2006) conducted an extensive study of the Professional and Organizational Development (POD) Network in Higher Education members. POD is a professional association for faculty development scholars and developers, with the mission of supporting higher education improvement through faculty, instructional, and organizational activities (Austin & Sorcinelli, 2013). POD identified the changing composition of the professoriate, the diverse student body, and the changing nature of teaching, learning, and scholarship as challenges that professional development should address. Several other studies examining faculty development identified similar findings (Elliot & Oliver, 2016; Morris, 2016; Latz & Rediger, 2015; Hainline et al., 2010; MacKinnon, 2003). In response to research, implementation of

teaching centers, workshops, programs, and other learning tools has occurred across campuses.

Responding to the multitude of development program initiatives springing up, researchers continue to attempt to measure the effectiveness of professional development. Despite their efforts, 30 years of published research has produced only tentative, weak conclusions (Amundsen & Wilson, 2012). Moreover, few studies have researched faculty attitudes toward these programs (Sorcinelli et al., 2006). Better research that helps understand faculty attitudes and perceptions toward pedagogical training will lend to the development of programs faculty members find useful.

## Statement of the Problem

In 2009, President Obama recognized the vital role of community colleges in providing the skills and education needed to drive the United States' "knowledge" economy. Recognizing, today's economy is information-driven, and college degrees or certifications are increasingly important workplace qualifications, Obama promoted higher education credentials as a vehicle for improving lives via earning potential and social status (Chen, 2018; The Century Foundation, 2013; Schneider & Yin, 2011). Traditionally, community college missions combine open enrollment opportunities, affordability, and accessibility with a comprehensive array of foundational and program-specific courses (Schneider & Yin, 2011). These qualities allow over 12 million students to pursue transfer credentials, two-year degrees, or certifications. (Gyurko et al., 2016). These are students who, without these institutions, would have difficulty advancing.

**Community College Students**

Community college students are often described as non-traditional, attending college part-time due to the competing demands in their lives (Table 1-1). The student average age is 28 years; the majority work full-time, and 63 percent attend classes part-time (AACC, 2018). Of all undergraduate students nationwide, 52 percent of Hispanics and 43 percent of blacks attend community colleges (AACC, 2018). Additionally, community college students are more likely to be low income.

Table 1-1

*Community College Student Characteristics*

| Community College Student Characteristics | |
|---|---|
| 54% | Work full time  (McClenney, 2004) |
| 34% | Have dependents (McClenney, 2004) |
| 16% | Are single parents (McClenney, 2004) |
| 23% | Commute to class 6 to 20 hours a week |
| 36% | Are first-generation college students (AACC, 2018) |
| 44% | Are 25 or older (McClenney, 2004) |
| 58% | Receive financial aid (AACC, 2018) |
| **Representation of Community College Students Among All Undergraduates** | |
| 24% | Hispanic (AACC, 2018) |
| 13% | Black (AACC, 2018) |
| 47% | White (AACC, 2018) |
| 16% | Native American/Asian/Pacific Islanders/Others (AACC, 2018) |

Such diversity generates various lifestyles and socioeconomic levels, ages, and ethnicities in a single classroom (Baime & Baum, 2016). President Obama stated that community colleges afford "people of all ages and backgrounds, even in the face of obstacles, even in the face of very difficult personal challenges . . . a chance on a brighter

future for themselves and their family" (Chen, 2018). However, data reveals that many

students are not equipped for the challenges of college: 65 percent of students at

community colleges fail to earn a degree or certification (The Century Foundation, 2013).

Data also reveals 81.4 percent of first-time in college students aspire to transfer and earn

a bachelor's degree, yet despairingly, only 11.6 percent do so within six years.

**Supporting Students through Faculty Development**

Community colleges suffer from high attrition rates of first-year students.

Attrition or failure to graduate costs not only the student but also the college and

taxpayers. According to a study by Schneider and Yin (2011), over four billion dollars in

federal, state, and local taxpayer monies went to first-year community college dropouts.

As former Under Secretary of Education Martha Kanter noted, community

colleges need to do more to help students succeed (Chen, 2018). Simply stated,

community colleges must demonstrate the ability to provide necessary learning tools to

help their diverse student bodies. Researchers Bailey et al. (2015) argued for a

fundamental redesign and coordination of community college programs, instruction, and

support services to prepare students for success. The organization's performance benefits

with systemic changes that strengthen the knowledge and skills of faculty members

(Jenkins, 2011).

Faculty professional development is valuable in supporting instructors and, in

turn, supporting students. As such, Austin and Sorcinelli (2013) reported on findings

from the Sorcinelli et al. (2006) survey of the POD to highlight professional development

issues of the twenty-first century. Findings included:

A.      Fiscal constraints and calls for accountability.

B.    With reduced budgets and increasing college tuition, academic leaders will call on faculty members to increase efficiency, find new revenue resources, and demonstrate student learning (Austin & Sorcinelli, 2013).

C.    The increasing diversity of students.

D.    Course offering times and formats are changing to meet the diverse needs of students. Faculty need to adapt and respond to support the different learning styles of students while developing curricula and teaching strategies for the various learning environments (Austin & Sorcinelli, 2013).

E.    Opportunities and challenges of technology.

F.    Technological innovations, enhanced learning activities, and online and blended (in-person and online) learning formats present challenges for faculty. Faculty members face new demands on their time as they learn to use technology for teaching and research. Opportunities exist for different pedagogical practices to improve student learning (Austin & Sorcinelli, 2013).

G.    Demands for interdisciplinary teaching.

H.    To address societal issues facing students, many faculty work across disciplinary lines, collaborating with colleagues from different fields to produce curriculum and team-teach courses (Austin & Sorcinelli, 2013).

I.    Changes in faculty characteristics.

J.    As the baby boom generation retires at a rapid pace, a new generation of faculty is shifting perspectives in the workplace (Austin & Sorcinelli, 2013). Expectations about the campus environment and the flexibility to manage both work and life responsibilities differ from the "old guard" (Gappa & Austin, 2010). Today's faculty members tend to work longer hours than their predecessors and have an expanded workload. Additionally, the trend to hire non-tenure-track and part-time faculty are creating challenges to not only integrate them into the culture and community of the college but also to ensure the quality of skills and abilities (Austin & Sorcinelli, 2013).

K.     Leadership and organizational skills.

L.     Roueche & Roueche (2012) and MacKinnon (2003) assert that leadership
       and organizational skills enhance curricular planning, help faculty
       understand and influence policies and procedures.

The above items can be addressed and prepared for via faculty training. Sorcinelli et al. (2006), and Kezar and Maxey (2015), found both early career and experienced faculty members benefit from support to coordinate multifarious responsibilities while learning new techniques and roles. However, as Bickerstaff and Edgecomb of the Community College Research Center (CCRC) report,

Institutional norms and structures in higher education do not typically foster professional learning focused on instruction. Conceptions of academic freedom discourage colleges from interfering in matters of curriculum and teaching, and heavy faculty workloads and reliance on adjuncts often deter collaborative efforts to strengthen classroom practice. Many faculty members have few opportunities to reflect on their teaching in a formal setting, and when they do, those learning experiences are not always applicable to their classrooms. Faculty development leaders may be hesitant to prescribe any single classroom strategy, which can lead to overly general discussions that are not grounded in the specific, day-to-day issues that instructors encounter in the classroom. In addition, instructors attending professional development sessions often have a variety of questions and needs, requiring a skilled facilitator with a broad range of expertise (Bickerstaff & Edgecomb, 2012, p. 1).

Some community colleges have created dedicated teaching centers, while others leave development to the individual instructor. After all, many faculty members learn to

teach through their own experiences as students, and through trial and error (MacKinnon, 2003). Faculty members are the institution's intellectual capital, spending more time with students than any other entity. As such, higher education must be held accountable, providing the appropriate support for faculty.

Bickerstaff and Edgecomb (2012) identified a three-part framework for analyzing professional learning opportunities: a purpose or learning objective, an activity as a means to reach the objective, and a venue or forum for learning. However, few have investigated faculty attitudes toward development programs. It stands to reason that faculty must attend programs to improve, yet many do not (Sorcinelli et al., 2006). Research into attitudes and perceptions of professional development is necessary to understand how professional development programs can improve, and thus, attendance and teaching are apt to improve (Kezar & Maxey, 2015). Faculty competence and commitment are vital to the quality and sustainability of the community college (Gappa & Austin, 2010).

## Purpose of the Study

The purpose of this study is to increase an understanding of Texas community college faculty attitudes and perceptions about professional development. This quantitative study seeks to identify:

- faculty attitudes and perceptions about pedagogical professional development training;
- factors predicting faculty attitude about professional development programs;
- how faculty perceive their professional development experiences influence teaching and student learning; and
- professional development topics faculty consider most applicable.

## Research Questions

The overarching research question for this study: What are community college faculty members' attitudes and perceptions of pedagogical (teacher training) professional development? The resulting research questions guided this study:

**RQ 1.** What faculty characteristics are associated with different attitudes about faculty professional development?

**RQ 2.** What external (campus culture, administrative support, colleague influences, funding, and time availability) and internal factors (examining perceptions about professional development activities and self-efficacy) predict attitudes about faculty professional development?

**RQ 3.** What significant associations exist between faculty attitude and participation in professional development activities?

**RQ 4.** What is the correlation between faculty attitudes about faculty training and their perceptions about the impact on teaching?

**RQ 5.** Which professional development topics do faculty consider the most useful training?

## Scope and Delimitations

The focal point of this study is educators who teach (a) at community colleges, (b) in the state of Texas, and (c) have attended professional development programs. An online quantitative survey was selected for administering the questionnaire because it could reach a large sample size, and it was time and cost-efficient. The study's population was delimited to Texas community college faculty members, and to control sample size, the researcher employed stratified random sampling. Questionnaire items were carefully researched and developed, and the alignment of the research questions and items was conducted. Descriptive and statistical analyses were conducted to determine the significance of the results.

**Assumptions**

The first assumption was that the campus liaisons provided or used comprehensive lists for contacting all teaching members of their campus. Additionally, because of self-identification, there was an assumption that survey participants represented teaching members of their college. For these assumptions, the researcher communicated with all liaisons to answer any questions or issues the liaison may have encountered. Another assumption was that the researcher relied on participants' self-assessment to provide accurate and honest responses. Lastly, there was an assumption that the data received was an accurate representation of faculty perceptions and how they relate to classroom implementation and student success. For these assumptions, participants were assured that anonymity and confidentiality would be preserved.

**Significance of the Study**

The complexity of the community college student body, along with calls for improved student outcomes, suggests a need to provide faculty with refined teaching tools and support. As colleges "manage societal shifts of near epoch proportion . . . faculty development should be viewed as a necessity, not a nicety" (McKee & Tew, 2013, p. 3). Evidence linking effective teaching with student learning and persistence advocate for relevant development programs (Haras et al., 2017).

There were a limited number of studies found during the literature review that investigated a faculty population that encompassed the analysis of both full- and part-time faculty, different teaching disciplines, ranks, and school sizes. Fewer studies examined how self-efficacy, campus culture, and previous training affected faculty attitudes toward professional development. Scarce few studies examined community

college faculty, and little is known about Texas community college faculty attitudes and perceptions. A need existed for a statewide quantitative study to identify trends among Texas community college faculty perceptions and attitudes towards professional development.

Understanding the profile of those least inclined to professional development may help guide future efforts to be more inclusive and comprehensive. For that reason, this study explores the complexity of both internal and external influences on faculty professional development attitudes and faculty perceptions of how professional development experiences influence teaching and student learning. The research focuses on insights from the perspective of the community college faculty, which offers the opportunity to make contributions to the knowledge base and practice of faculty professional development.

This study provides data to help administrators make informed decisions about policy that promotes faculty engagement and development activities and, in turn, improves teaching and student success. Additionally, this study could serve as the basis for planning improvements facilitating the development and advancement of effective and appropriate training opportunities, ultimately improving student outcomes. Community college administrators determine the level of funding for professional development as well as how strongly they encourage faculty participation. Ultimately, this study provides valuable insight for community college stakeholders during their pursuit of improving student learning, through meaningful faculty development training opportunities—professional development programs that faculty members consider relevant, that they utilize, and that leads to student success.

## Theoretical Framework

There is a need to examine factors influencing faculty attitudes and behaviors regarding faculty professional development. the theoretical framework provides a foundation, serving as support and structure, guiding the research design and variables measured (Creswell, 2014). Bandura's social cognitive theory (SCT) provides a comprehensive framework to explain (a) the interacting influences of the person, environment, and behavior; and (b) the interactions of faculty motivation and action (LaMorte, 2016). This theory guided the selection of the variables used throughout this study. Furthermore, the concept of SCT was used to explain how faculty members gain and maintain attitudes and behavior while also considering the interactions on the college campus.

## Methods

This study reflects the scientific method of systematically and logically approaching questions to accumulate knowledge; accordingly, the quantitative research provided a blueprint for the study. Creswell (2014) states, "A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. From sample results, the researcher generalizes or draws inferences to the population" (p. 155). Quantitative research is objective and assumes that behavior and reasoning are predictable and explainable, and thus, statistical relationships among the variables lend to the generalization of findings (Johnson & Christensen, 2014; Salant & Dillman, 1994). However, as Watson (1998) emphasizes, survey research cannot measure behavior, only perceptions of those behaviors.

This study employed a non-experimental, scaled survey to collect quantitative data from Texas community colleges during Summer-Fall 2019. A synopsis of the steps of the scientific method for conducting this research follows.

A. Data were collected via a survey consisting of multiple-choice and Likert-style scaled items.

B. Demographic characteristics were collected and served as independent variables.

C. Internal factors data were collected, examining perceptions about professional development activities and self-efficacy.

D. External factors data were collected to develop how faculty perceive the campus culture, administrative support, colleague influences, funding, and time availability regarding professional development.

E. Faculty were asked about their beliefs about the benefits of development activities as applied in the classroom.

F. Data were de-identified based on both institutions and individuals.

G. Descriptive statistics, such as means, standard deviations, ANOVA, and multiple regressions were used to statistically determine associations, predictions, differences between groups, and reliability (Laerd Dissertation, 2012).

Kansas State University (KSU), University Research Compliance Office Institutional Review Board (IRB), determined the research proposal exempt from further review on 05 June 2019 (see Appendix A). The researcher received approval for research from sample population colleges and invited faculty members via email, to participate in the survey. Upon agreement, faculty members used the survey tool, SurveyMonkey®, to record responses. A Likert rating scale was employed in the survey to quantify responses regarding faculty attitude, perception, and training implementation. The relationship between faculty attitudes and perceptions of training and classroom implementation,

participation, and student success, was demonstrated via correlation techniques, such as Pearson's correlation coefficient. Though correlation does not definitively determine the causal relationship, it can help illuminate the growing knowledge base about the relationship between faculty development and classroom success.

The survey data also allowed stratification of the faculty members into different levels of training attitudes and training implementation. Stratification allowed comparisons among groups, via contingency table, ANOVA, t-test, or other techniques.

**Definitions of Terms**

Important terms relevant to this study are defined as follows:

Table 1-2

*Definition of Terms*

| | |
|---|---|
| Andragogy | A term proposed by Knowles (1975) to describe the ways adults learn and that they pursue learning that is important to them (Meyer & Murrell, 2014). |
| Community College | A two-year higher education institution offering open enrollment to adult learners. Community colleges usually offer programs to assist transfer to four-year universities and provide workforce training education (Boggs G. R., 2010). |
| Faculty Development Program | Programs designed as opportunities for faculty in multifarious roles on the higher education campus. |
| Faculty Member | For this paper, faculty are content specialists teaching at community colleges. They may teach technical, clinical, or academic courses. |
| Adjunct/Part-time Faculty Member | An instructor hired on a semester basis, compensated at a lesser rate than full-time faculty, teaching fewer hours (typically nine or fewer), and with fewer responsibilities than full-time faculty. |

Table 1-2

*Definition of Terms*

| | |
|---|---|
| Full-time Faculty Member | An instructor compensated with benefits, proceeding on tenure, or non-tenure track. Members are typically hired on a yearly or multi-year contract obligating them to fulfill teaching, administrative, and community responsibilities. |
| Tenured and Non-tenured Faculty | Tenured faculty proceeds through a prescribed review process. Tenured faculty typically have more job security and benefits not available to non-tenured faculty (Bendickson & Griffin, 2010). |
| Higher Education | Education beyond the secondary level occurring at community colleges and universities. |
| Lower Division | Higher education courses are taken by first or second-year undergraduate students to fulfill general education requirements (National Research Council, 2000). |
| Pedagogy | The science of teaching involving the instructor's professional knowledge and the practice of teaching "within the context of theories of human development and learning, cultural reproduction and transformation, political and social progress, and intellectual engagement (Anderson, 2009, p. 2). Key elements of pedagogy include content knowledge, an "understanding of students' conceptions of the subject, and the learning and teaching implications that were associated with the specific subject matter," and general teaching strategies. The knowledge base for teaching also includes curriculum knowledge, educational contexts, and "knowledge of the purposes of education" (Shulman, 1987). |
| Professional Developers | The community responsible for preparing and providing professional development for instructors (National Research Council, 2000). |

Table 1-2

*Definition of Terms*

| | |
|---|---|
| Professional and Organizational Development (POD) Network in Higher Education | One of the largest professional organizations for faculty development researchers and practitioners, dedicated to facilitating professional community leaders (Austin & Sorcinelli, 2013). |
| Professional Development | An ongoing process of updating knowledge and skills related to job responsibilities that cultivate the growth of individuals and organizations through a learner-centered, focused approach (National Staff Development Council, 2009). The research for this study focused on professional development to facilitate/ improve teaching skills. |
| Faculty Development/Training and Staff Development | These terms are used interchangeably with professional development. |
| Stakeholders | Community college stakeholders include the local community members, students, administrators, faculty, and other persons with an interest or stake in the college's activities and engagements. |

Table 1-2

*Definition of Terms*

| | |
|---|---|
| Student Success | The individual goals of students truly define student success, making defined metrics for measuring success difficult. In higher education, student success is the driving force of policy and change efforts. For this study, student success is defined as students completing 15 credit semester hours, 30 credit semester hours, obtaining a degree, certification, or transferring to another higher education institution. The parameters were determined using the Texas Community Colleges performance-based funding for student success points adopted by the 83$^{rd}$ Texas Legislature in 2013 (Texas Association of Community Colleges, 2018). |

Some terms will be defined within the literature review and cited appropriately.

## Summary and Organization of the Study

This introductory chapter provided an introduction to community colleges, students, and faculty, and faculty professional development. Explanations of the statement of the problem, the purpose of the study, and research questions followed. Next, the chapter provided an overview of the study's scope, delimitations, and assumptions. Chapter one also examined the significance of the study, providing an overview of the theoretical framework selected and methods adopted for this study. The terms used in this dissertation were defined. This chapter concludes with the dissertation's organization.

Chapter two includes a comprehensive literature review focusing on the historical perspective on community colleges, including their relevance in the nation's economy,

successes, and struggles. Chapter two also considers the different aspects of community college students, including their demographics and challenges. Furthermore, chapter two discusses different aspects of the community college faculty, including their institutional roles, and challenges. Additionally, chapter two discusses the features of the campus culture. Professional faculty development programs, and reform efforts are discussed in chapter two, as well as faculty attitudes, perceptions, and participation in professional development activities.

Chapter three describes the methods for conducting this study, including the research questions and hypotheses, theoretical framework, and research design. Furthermore, chapter three defines the participant population, and the instrumentation utilized. Chapter three also defines the validity and reliability of the study, as well as the sampling procedures, data collection, and data analysis methods. Additionally, chapter three defines the limitations and data management of this study.

The results from chapter three are presented in chapter four, including the instrument reliability, and descriptive statistics that lay the groundwork for hypotheses testing. Chapter four provides statistical analyses and emerging themes in each of the research questions.

Chapter five summarizes the study with interpretations of the findings and their implications for community college professional development programs. For instance, the researcher focuses on discussions regarding learning differences within different generations (levels of experience), faculty members' self-efficacy, the campus culture, and support for professional development. Chapter five also discusses faculty attitudes and the effectiveness of faculty development programs. Furthermore, chapter five

identifies recommendations for practice, including administrative support, embracing differences, using best practices, and focusing on a learning culture. Recommendations for future research include expanding this study, evaluating how faculty attitudes affect student learning, as well as understanding and implementing models of high-achieving education systems. Chapter five concludes with this researcher's remarks.

## Chapter 2 - Literature Review

As community colleges strive to improve student success, faculty development programs are "evolving in focus and form" and are vital for safeguarding institutional quality (Austin & Sorcinelli, 2013). The purpose of this quantitative study was to increase an understanding of Texas community college faculty attitudes about professional development by investigating intrinsic and extrinsic factors associated, as well as to understand faculty perceptions toward training and implementation in the classroom.

Sorcinelli et al. (2006) identified "three primary challenges and forces of change" guiding faculty professional development programs and practices; "the changing professoriate, the changing nature of the student body, and the changing nature of teaching, learning, and scholarship" (p. 5). Guided by these areas of focus, this chapter summarizes the current state of research in faculty professional development and student outcomes. To understand the purpose of this study, an understanding of the "players" is necessary. As such, the first section provides an overview of community college history and its mission. Next, the second section identifies community college students and their educational success. The third section defines community college faculty members, the different employment status of faculty, and their concordant roles and expectations. Next, the fourth section calls attention to the evolving role of faculty professional development, the significance of faculty professional development programs, and pedagogical training. The literature review concludes with a review of faculty attitudes, perceptions, and participation, followed by a chapter summary.

**Community College History and Mission**

The higher a person's educational attainment, the more likely he or she is to be gainfully employed, pay taxes, volunteer, participate in the democratic process, and be capable of taking care of the health and educational needs of his or her children. Conversely, higher levels of education make it less likely for individuals to be publicly dependent (Center for Community College Student Engagement (CCCSE), 2010, p. 3).

In 1901, the first community college, Joliet Junior College, was established as a response to the University of Chicago's attempt to make college freshman-level and sophomore-level academics more available to high school students. This arrangement also separated early instruction from the shadow of research-heavy junior and senior-level studies (Boggs, 2010). Subsequent expansion of community colleges made it easier for students, who could not always reach far-flung, expensive universities, to start their education with hopes of transferring. By 1920, the role of local colleges continued to grow, with communities recognizing a venue for attainable education and career advancement through vocational training programs (Drury, 2003). Further cementing the importance of community colleges, the Truman Commission Report in 1947 ensured that accessible, affordable, and local education was available to all people, including service members returning from war, women, and people of color (Boggs, 2010; Drury, 2003; McClenney, 2004). Today, more than 1,100 community colleges serve 12.7 million students, representing nearly one-half of all postsecondary students (American Association of Community Colleges (AACC), 2016; Bailey & Morest, 2006).

Recognizing that an estimated 65 percent of jobs require a college education, President Obama promoted community colleges, with their broad range of missions and nearly ubiquitous presence, as a means to provide said education (Boggs, 2010). However, this national attention also highlighted declining student success rates. President Obama, along with the Lumina Foundation, the Bill and Melinda Gates Foundation, and state governments, called for increasing graduation rates (Bailey, 2017; Sorcinelli et al., 2017). However, this cannot be achieved without addressing the barriers to college completion. Due to their open and accessible nature, community colleges enroll students with various levels of academic ability and experience. Not all of these students are prepared to succeed in the more rigorous college environment (AACC, 2014; Dougherty et al., 2019; Sorcinelli et al., 2017; Twombly & Townsend, 2008).

In effect, a chasm of preparation develops between underprepared students and academic excellence. Though community colleges recognize the need to identify at-risk students and provide appropriate remedial coursework, the organization seemingly fails to recognize how essential consistent and reliable curriculum development and classroom training are to addressing student needs (Hendrick et al., 2006; Roueche & Roueche, 2012). Furthermore, as community college enrollment grows and funding declines, budget shortfalls affect faculty early: deferred hiring decisions increasing the student/faculty ratio, replacement of full-time faculty with adjunct faculty, elimination of faculty raises, and development programs. All of this, in turn, negatively affects marginal students (Hendrick et al., 2006). These cuts challenge institutions that need to invest in practices that improve student experiences.

**Community College Students and Student Success**

Community college students are as diverse as the programs in which they enroll, and historically, descriptions of the student body did not reflect the complexity of their identities (Levin et al., 2017). According to Levin et al. (2017), discussions of diversity evolved in the 1990s, emphasizing community college students as multi-cultural and non-traditional. Currently, the National Center for Education Statistics (NCES) describes community college students as non-traditional if they (1) are financially independent of their parents, (2) attend school part-time while working full-time, (3) delay enrollment for more than one semester after high school (Niu & Tienda, 2013), (4) have dependents, or (5) did not graduate high school (McClenney, 2004). Traditional students are between 18-24 years of age, while the average community college student age is 28 years (Juszkiewicz, 2014). Using these criteria, ninety percent of all community college students are non-traditional (Hamm, 2004). Additionally, of all Hispanic, Native American, and African-American college students, 50 percent are enrolled at community colleges (Boggs, 2010). Furthermore, in 2006, 58 percent of community college students were in the lower half of the socioeconomic distribution (Dougherty et al., 2019). Research shows that, for various reasons, these markers of diversity are associated with lower college persistence and graduation rates (Juszkiewicz, 2014).

With multiple missions and a diverse student body, it is challenging to define student success in community colleges (Clotfelter et al., 2013). Nevertheless, the National Student Clearinghouse (NSC) (2016) recommends persistence, transfer rates, certification, and degree completion as metrics of success. By these standards, colleges often fail: only 15 percent of first-time students complete a certificate or degree within

three years. Another 40 percent complete within ten years, while 45 percent leave college without any credentials (National Center for Education Statistics (NCES), 2011). Despite awareness of these discouraging trends in success, student outcomes have been de-prioritized over time (Harrell and Holcroft, 2012).

The legacy of the Truman Commission's mission to fill community colleges prompted many states to base funding on student enrollment. In turn, this shifted focus from, and thus de-valued, student success. The initiatives of President Obama, which made apparent widespread student failure, led to calls for funding reform, most notably, using student success as a funding metric (Boggs, 2010). For example, Texas adopted a ten percent funding incentive based on students attaining certain milestones (Figure 2-1). These include successful completion of college-readiness courses, completion of 15, 30, or more college credits, earning a degree or certificate, or transferring with at least 15 hours (Legislative Budget Board, 2016).

Figure 2-1

*Performance-Based Funding Model for Texas Community Colleges*
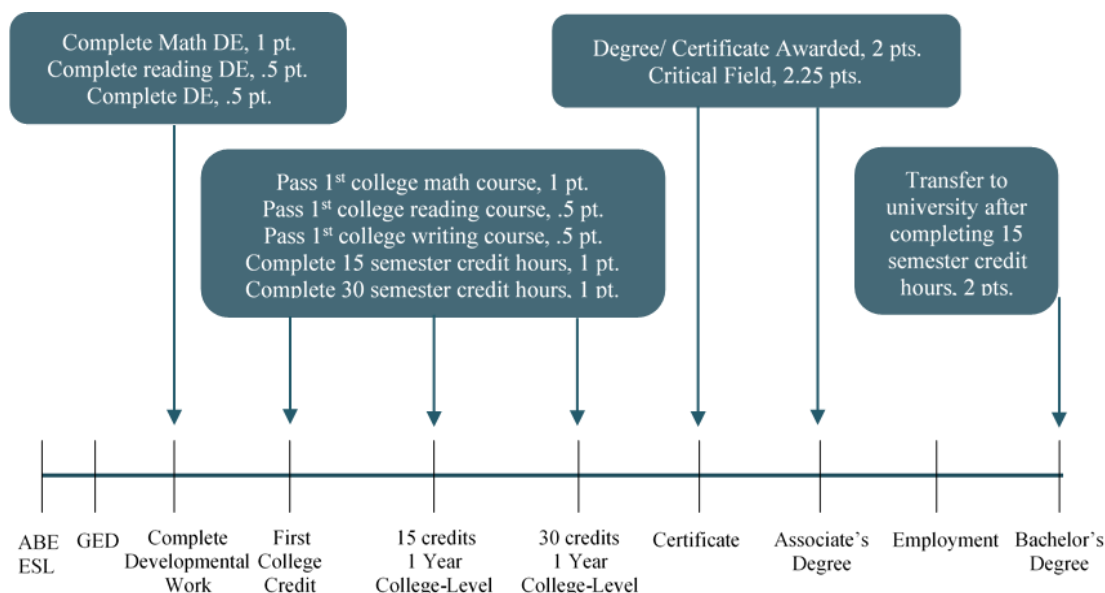


*Note.* The Texas Performance-Based Funding Model for Community Colleges (2014-15) provides an overview of how Texas determines the stages of student success and funding points (adapted from McKinney & Hagedorn, 2017).

Understanding the student body, Bailey (2017) emphasized the need to increase funding for "[community colleges] whose students have the greatest needs [but] have the fewest resources to address those needs" (p. 34). That has not happened, and such disparities create a conundrum: can schools be successful under current funding structures, and, thus, is it fair to base their funding on measures of success? Moreover, does performance-based funding encourage limiting open enrollment, focusing instead on students that are more likely to succeed (Dowd & Shieh, 2013; Shulock & Jenkins, 2011)?

Bailey and Morest (2006) contend that as calls for performance and outcome-based accountability increase, community colleges will struggle to maintain their open-

door policy and support underprepared and struggling students. In response, entrepreneurs and non-profit organizations, such as the Bill and Melinda Gates Foundation and Lumina Foundation, seek to fill the gap, funding initiatives to address student outcomes (AACC, 2014). For instance, the Lumina Foundation and others sponsor Achieving the Dream (ATD), an initiative where community colleges collaborate with education experts to establish comprehensive, "innovative solutions and effective practices and policies leading to improved outcomes for all students" (ATD, 2020, Mission Statement).

Arguably, Bailey (2017) asserts that ATD and other programs have only succeeded in minimal or short-term changes. The suggested reason these initiatives fundamentally fail is that they focus on small numbers of students and address only a small area of a student's experience. As such, Bailey (2017) promotes Guided Pathways, a comprehensive initiative combining intrusive advising with a curricular redesign. This transformation ideally supports students during their entire college experience. Essential to Guided Pathways' success is faculty willingness to change the classroom into a more student-centric learning space in place of the teacher-centric lecture (Bailey, 2017).

Furthermore, Kezar and Maxey (2015) present 50 years of data elucidating faculty-student interactions are crucial to promoting student success, especially among first-generation and minority students. It becomes apparent that, in light of funding and curricular overhauls, it is faculty engagement that is most critical to ensuring student success. "Faculty development and enrichment thus play a key role in the learning community experience" (Bonet & Walters, 2016, p. 225). (Weiss, et al., 2014) assert that sustained faculty-to-student and student-to-student relationships help integrate the student

into college life. As students gain self-confidence and learn valuable study habits and behaviors, they become more committed to their education, increasing retention and completion (AACC, 2014; Sorcinelli, 2007).

Regardless of the different reforms and initiatives promoted over time, a consistent factor paramount to student success is teacher effectiveness. Effective faculty are content experts, possess excellent verbal skills, and have adequate preparation time. Furthermore, competent instructors have "time [and classroom] management skills, are masters of student motivation and know-how to meet the needs of students with special needs … as well as high-achievers" (Gordon, 2012, p. 2). Importantly, good instructors earn the respect of students and believe they can make a positive difference in student lives (Gordon, 2012). To be effective, community college faculty must be more than experts in their field; they must also be experts in teaching (Gordon, 2012; Lancaster et al., 2014).

## Community College Faculty

Community college faculty arrived at their present careers from different paths, and for most, community college teaching is not their first career (Fugate & Amey, 2000; Gahn &Twombly, 2001). Community college faculty enjoy teaching and work with students of varying ages, backgrounds, and educational experiences (Webb, 2007). Although the work is challenging, "What drives many community college faculty members is knowing they have made a lasting impact on their students" (Webb, 2007, para. 13).

Community college faculty qualifications typically include a master's degree or equivalent industry experience (U.S. Department of Labor, 2018). Unlike primary and

secondary school teachers, college educators are not required to participate in formal

pedagogical training (Flynn et al., 2017) or on-the-job training (U.S. Department of

Labor, 2018). According to the U. S. Department of Labor, postsecondary teachers'

privileges and duties include:

- the authority and autonomy to teach in a subject area;
- working with and advising students;
- assessing student progress;
- developing instructional plans and assignments;
- developing or modifying curriculum for degree or certification programs; and
- staying informed about innovations in their field (2018).

Jenkins (2015) explains that community college faculty careers are not for

everyone due to multiple assignments and responsibilities. For example, most full-time

faculty members contract to teach 15 credit hours per semester, a heavy load by many

standards. Additionally, there are no teaching or lab assistants available for community

college faculty as compared to university faculty who often have teaching or lab

assistants to conduct labs, grade papers, and cover occasional lectures. There are also

institutional expectations to serve the college community and perform administrative

duties (Bilal et al., 2017; Twombly & Townsend, 2008).

Despite the teaching and extra-curricular load, community college faculty are

often perceived as "lesser than" their peers. Most do not hold doctoral degrees like their

university counterparts and have less teaching qualifications and training than high

school teachers (Flynn et al., 2017; Twombly & Townsend, 2008). Ironically, community

college faculty are generally hired due to their professional aptitude as opposed to their

teaching skills and tend to learn pedagogy through trial and error (Flynn et al., 2017;

Twombly & Townsend, 2008). Even these on-the-job opportunities to develop teaching skills may be limited as a result of changing hiring practices.

At present, there is a movement across higher education to fill vacancies with part-time faculty who usually teach three to nine credit hours per semester. Typically, part-time faculty are not responsible for administrative and leadership duties or involved in curriculum design (Latz & Rediger, 2015). Part-time faculty currently comprise 67 percent of all community college teaching staff (Schmidt, 2008 as cited in Latz & Mulvihill, 2011). The increase of part-time faculty may be due, in part, to their temporary employment status and minimal compensation packages (CCCSE, 2014; Fain, 2014). Regardless, Kater (2017) asserts a negative impact as "faculty are increasingly "managed professionals" … manifested primarily in the adjunctification of the faculty" (p. 239). Kater's research focused on faculty perceptions of the concept of shared governance within the changing faculty population. Shared governance includes faculty in decisions affecting the classroom. As such, the loss of shared governance also negatively impacts self-efficacy (Kater, 2017). This shift in faculty composition, however beneficial for the budget, may harm the institution (Kater, 2017).

While the full implications of this hiring strategy are unknown, research suggests it may have resounding effects on academics (Barnshaw & Dunietz, 2015; Dowd & Shieh, 2013). The individual share of advising and departmental committee responsibilities increases as full-time faculty numbers shrink. Thus, full-time faculty have heavier workloads than in the past. Additionally, part-time faculty members lack the economic security of tenured positions, and the institution lacks the commitment to incentivizing development opportunities and providing adequate working conditions

(Barnshaw & Dunietz, 2015). Withal, researchers warn the college professoriate is in "danger of losing its attractiveness" due to the lack of financial compensation and decline of tenure (Barnshaw & Dunietz, 2015, p. 12).

As transformational initiatives such as the previously mentioned Guided Pathways accelerate, full-time faculty are charged with providing more in-depth student advising, coaching, and mentoring. Since part-time faculty members are not required to complete the same obligations as full-time members, this inadvertently creates hardships for all faculty affecting the quality of output (Bettinger & Long, 2010). Additionally, part-time faculty often determine it financially necessary to work in industry or at other colleges, resulting in poor work-life balance. These contribute to faculty dissatisfaction, lack of commitment, insecurity, and concerns over equity and the ability to perform (Harbour, 2018; Latz & Rediger, 2015).

Regardless, no one group of people on the college campus spends more time with students than faculty. CCCSE (2009) reports, the more time faculty spend with students, the more likely students are to be engaged and successful. Efficacious faculty-student exchanges include interactive instruction with classroom discussions and case studies, as well as involvement in service projects, hallway meetings, and community cultural events. Due to the increasing burdens on full-time instructors—and the lack of requirement from the 70 percent part-time staff—opportunities for meaningful student interactions and engagement are limited (Beach et al., 2016; CCCSE, 2009).

### Campus Culture and Leadership

Campus culture is "constantly reenacted and created by our interactions with others and shaped by our own behavior" (Schein, 2010, p. 3). As such, the campus

culture encompasses many levels of consideration, including (a) observed behavior and processes; (b) beliefs, values, and rationalizations; and (c) underlying assumptions determining perceptions and behaviors (Schein, 2010). Furthermore, leadership, whether a faculty-peer, department leader, or administrator, promotes the beliefs and values emulated within the campus culture, thus shaping perceptions and behaviors. For instance, when faculty members assume that a professional development program "does not work," changing this shared assumption within the campus culture "is difficult, time-consuming, and high anxiety-provoking" (Schein, 2010, p. 33). Thus, attitudes become contagious within the campus culture because "[c]ultures tell their members who they are, how to behave toward each other, and how to feel good about themselves" (Schein, 2010, p. 29). Organizational leaders "must exhibit a strong commitment to the [change] process" (Roueche et al., 2001, p.527). Nevertheless, "Leaders are faced with an elaborate culture to keep out new ideas" (Baker, 1998 in Jones-Kavalier & Roueche, 2010, p. 36).

Historically, almost every department within higher education institutions has operated within a silo that "evolves as it adapts to its unique environment" (Schein, 2010, p. 296), evolving unique language and methods of accomplishing duties and responsibilities. Silos exist as subcultures within the campus infrastructure (e.g., administrative areas, student services, and academic departments), but they also exist in the mind. "In the mind, they provide safety and comfort by keeping the others out, those who are 'not like us,'" creating an "us and them" mentality (Cilliers & Greyvenstein, 2012, p. 3). As such, silos often result in an unwillingness or difficulty to communicate and collaborate information and knowledge. And yet, cross-functional relationships are

critical in developing an inclusive and cooperative campus culture (Cilliers & Greyvenstein, 2012; Schein, 2010). For instance, silos can isolate faculty members and staff members who, in turn, may unknowingly provide overlapping professional development services, which results in duplication of effort and inefficiency. "Integrated structures are key to sustaining collaboration and linking work that is typically done in isolation to the mission and networks of the campus" (Lloyd, 2016, p. 613).

Improving the organizational culture is central in facilitating improvement efforts; campus culture can be a significant obstacle creating roadblocks to reach goals. it can be a significant benefit by fostering improvements and fulfilling goals. Failing to nurture the desired culture, destines initiatives to failure (Cameron & Quinn, 2006). Thus, transforming the campus culture requires "feeding the soul of the organization" (Jones-Kavalier & Roueche, 2010). Cultivating the desired culture necessitates campus leaders to (a) build relationships of mutual trust and mindfulness, (b) make data-informed decisions, (c) model the desired change, (d) conserve key values across generations, and (e) invest in innovative and relevant professional development (Cameron & Quinn, 2006; Jones-Kavalier & Roueche, 2010; Schein, 2010).

To cultivate the desired campus culture, "Effective organizational change must involve all constituent groups" (Boggs & McPhail, 2016, p. 140) moving forward as "proactive problem solvers and learners" (Schein & Schein, 2016, p. 344). Committing to a learning culture instead of a problem/solution culture promotes embedding learning into the campus DNA. As people learn new skills, they are apt to (a) gain confidence, (b) "try new ways of doing things," (c) embrace new ways rather than resisting them, and (d) accept "errors and failures as learning opportunities" (Schein & Schein, 2016, p. 344).

Furthermore, with leaders championing the belief that faculty and staff desire improvement and are willing to learn if they are "provided the resources and the necessary psychological safety," inevitably self-fulfilling prophecies occur along with positive attitude adjustments (Schein & Schein, 2016, p. 344).

## Professional Development

The field of faculty professional development is relatively young; Sorcinelli et al. (2017) credit the University of Michigan with establishing the first faculty learning center fifty years ago. This new practice referred to by interchangeable terms including "professional development," "faculty development," "faculty training," "teacher training," and "staff development," is defined as comprehensive, sustainable, and rigorous programs, with goals of increasing student achievement (National Staff Development Council (NSDC), 2009). Professional associations and foundations such as the Teagle Foundation and Andrew W. Mellon Foundation support innovative pedagogy, curriculum, diversity, and assessment programs. Additionally, government agencies like the National Science Foundation (NSF) partner with schools to target institution-level transformations (Sorcinelli et al., 2017).

According to Sorcinelli et al. (2006), faculty development has evolved through several stages. First, the Age of the Scholar (late 1950s-1960s) focused on improving scholarly expertise via research and publication. The second stage, the Age of the Teacher (1960s-1970s), broadened the role of faculty, as the focus shifted to include improving teaching skills along with research opportunities. Developers became part of the training process, ushering in the Age of the Developer (1980s). Increasingly supported by institutional and external funds, teaching development centers expanded. As

a result, measuring the outcomes of teacher training was prioritized (Sorcinelli et al., 2006). The Age of the Learner (1990s) changed the focus from teacher to learner, with more student-centered pedagogical approaches, including active and collaborative learning. Community colleges began to see an increase in faculty development centers, and professional development societies took a foothold in higher education (Beach et al., 2016). Sorcinelli et al. (2006) explained this age as a time of significant change; the classroom concept was changing, as well as approaches to faculty, instructional, and organizational development.

Technological advances changed the way of information presentation and availability in the 2000s ushering in the Age of the Networker. Beach et al. (2016) characterized the time with three dominant themes, including, (a) faculty roles; (b) the student body; and (c) the nature of teaching, learning, and scholarship. Furthermore, faculty developers identified student learning outcome assessments and development program accountability as top priorities. Beach et al. (2016) identified the Age of Evidence (current) as a time for faculty developers to embrace the needs of faculty members while also assessing the "impact of their programs on teaching and learning and other key outcomes" (Sorcinelli et al., 2017, p. 8).

However, not all administrators, developers, and faculty agree on what constitutes faculty professional development or delivery methods. For example, many development departments assume a passive role, anticipating faculty will show interest in workshops presented, and then find time to attend as well as integrate into the classroom. Additionally, a wide range of professional development activities exist. Delivery and duration range from hour-long workshops to semester-long programs, individual research

to collaborative learning, or classroom observations to online training, lecture-style to

immersive instruction. Topics vary and include classroom practices, technology, distance

education training, curriculum, coaching, and faculty leader programs. At length, the list

continues to include many immediate and long-term needs of the college and staff

(Darling-Hammond et al., 2010; Desimone, 2009; Haras, 2018; Kang et al., 2013;

Sorcinelli et al., 2006). Suffice it to say, experiences range from formally structured

seminars to hallway discussions with contemporaries. More importantly, "learning should

be viewed as both a process of active individual construction and a process of

enculturation into the . . . practices of wider society" (Cobb, 1994 as cited in Desimone,

2009, p. 182). Such diverse and dynamic learning is challenging to identify and measure.

Desimone (2009) recommended a comprehensive framework for evaluating the

impacts identifying critical features of professional development, asserting opportunities

resulting in increased teacher learning and improved practice. Desimone (2009) states

that there is enough evidence to establish a consensus of core features to institute in all

professional development studies. The framework identified in Figure 2-2 links

professional development with teacher knowledge, practice, and student achievement.

Figure 2-2

Desimone's Conceptual Framework
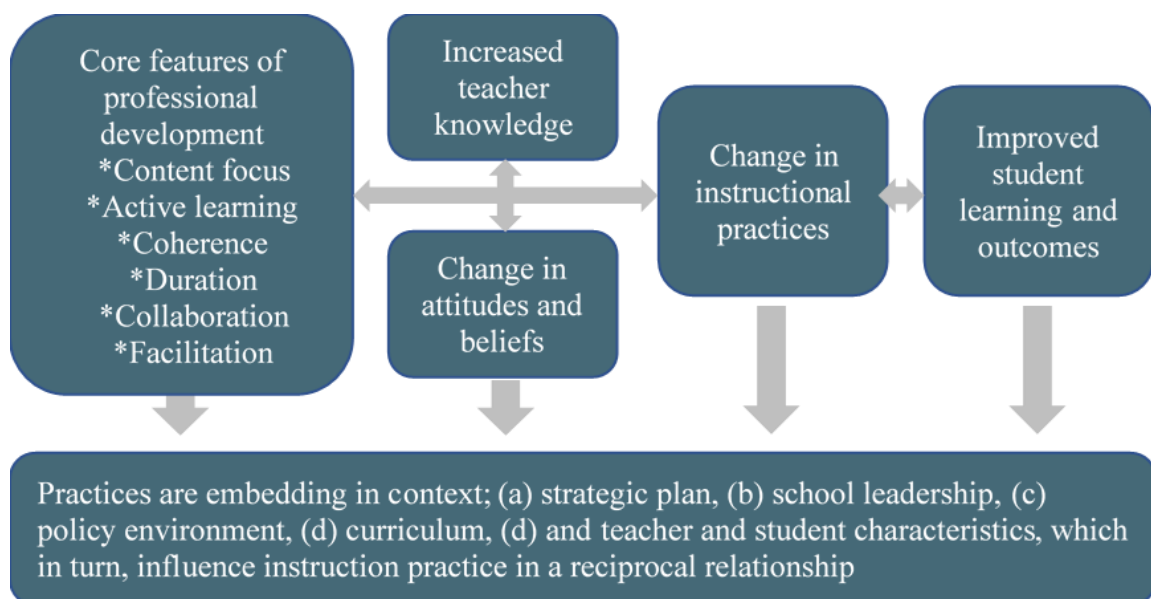


*Note.* Desimone (2009) proposed a conceptual framework for studying professional development effects on teachers and students (Adapted from Desimone, 2009).

Darling-Hammond, Hyler, and Gardner (2017) used a similar framework to analyze 35 studies that demonstrated positive links to professional development, classroom practices, and student outcomes. They and other researchers expanded Desimone's core framework and identified the following elements as the key to effective development.

Table 2-1

*Desimone's Expanded Framework*

| | |
|---|---|
| Content-focused | Development focused on the discipline-specific curriculum and pedagogies. |
| Active learning | Teachers were directly engaged in designing and testing teaching strategies. Program leaders did not use traditional lecture styles but adopted more contextualized "hands-on" learning, including observations, interactive feedback, and leading discussions. |
| Duration | Change requires time, and as such, activities should span enough time to develop. Research has shown the more extensive faculty development, and the more likely faculty implement learned techniques. Thus, one and done workshops do not promote sustained, embedded change. |
| Supports collaboration | Collective participation, typically in job-embedded contexts, is integral to the process. |
| Coherence | Coherence involves the extent that teacher learning is consistent with the participant's knowledge and beliefs. Additionally, development should align with the college's goals for student learning, as well as state and federal education reforms and policies. |
| Models and modeling | Examples of models include case studies, demonstration lessons, sample assessments, and student work samples. |
| Feedback and reflection | Offer opportunities for feedback and reflection. |

Recommendations included providing coaching and expert support and offering opportunities for feedback and reflection (Darling-Hammond et al., 2017). Ironically, very little formal training provides teaching necessary to address adult learning, memory, or transfer of learning (Khalil & Elkhider, 2016). Additionally, the "cognitive, organizational, and educational psychologists" that teach learning principles and evidence-based decision-making rarely apply the principles they teach (Halpern & Hakel, 2003).

**The Significance of Professional Development**

Nearly 30 years ago, Boyer (1990) proposed that college faculty must remain current within their fields and become scholars on current advances to develop and assess better ways to facilitate student learning. Altany (2012) describes the three-legged stool of academic life (teaching, research, and service) as missing a leg that would add strength and stability. The missing leg is professional development. Altany (2012) contends professional development is integral to quality teaching because it emphasizes (a) continuous professional growth, addressing theory, research, and collaboration; (b) understanding instructional concepts and processes; (c) reflection and exposure to new ideas; (d) motivation; (e) strengthening affective, intellectual, and social aspects of academia; and (f) opportunities to learn about their profession, students, and about themselves (Altany, 2012).

Since Boyer's initial assertion that effective teaching demands more than skill acquisition, faculty are faced with creating a balance of their time between college duties and teaching responsibilities. McKeachie and Svinicki assert, "Teaching skillfully may be less time consuming than teaching badly. Teaching well is more fun than teaching poorly" (2013, p. 5). As such, dedicating time to develop appropriate skills will lead to achieving self-satisfaction and self-efficacy.

Bandura's social cognitive theory defines the value of self-efficacy in academic achievement, motivation, and learning. Having knowledge and skills is not enough; the faculty must have confidence in their performance ability (Bandura, 1993). Individuals' beliefs about how capable they are to perform specific tasks are closely related to faculty members' optimism, persistence, and success in challenging settings (Wang et al., 2015).

Developing self-efficacy requires creating a culture of encouragement and support for faculty.

**Creating Culture with Professional Development**

Condon et al. (2016), performed a three-year longitudinal study across two campuses to identify the effects of institutionally-supported faculty development on student learning. The improvement in student outcomes, they concluded, justified the expense of the faculty training. Development programs should rely on well-designed curricula with specific goals and measurable outcomes that promote a culture of learning.

Improved teaching skills are critical, as high-quality teaching is positively correlated with student retention (Gyurko et al., 2016) and persistence leading to graduation (Kezar and Maxey, 2015; Gyurko et al., 2016). Faculty skills also improve student cognitive and critical thinking skills, which improves social integration, and subsequently, higher re-enrollment (Haras et al., 2017). These step-by-step improvements begin in the classroom with a well-rounded, a well-supported faculty member (Gyurko et al., 2016; Gibbs & Coffey, 2004). However, many colleges' development programs are inconsistent, irrelevant, non-research-based, and unfunded, thus not embedded into the campus culture.

Murray (2002a) noted that when development programs lack ties to the institution's long-term strategic plans, the administration finds it difficult to commit resources to the program. Moreover, because the characteristics influencing program effectiveness are many and complex, competent professional development requires well-thought-out and agreed-upon criteria to provides coherent, well-developed contextual elements (Bilal et al., 2017; Guskey 2003). A weak commitment to forming a

development curriculum, however, results in programs without defined outcomes or measures of success. As a result, programs are minimally impactful and do not address faculty or campus needs. Faculty participation is low, while resentment is high (Murray, 2002a).

Beach et al. (2016) described a need for professional development to move beyond focusing on the individual to a more comprehensive system of interconnected people and skills. As such, faculty development should be multidimensional, fostering instructional, scholarly, and leadership skills, while addressing faculty roles in the institution and community, and goals for organizational development, and work-life balance (Beach et al., 2016). All faculty, full-time or part-time, tenure- and non-tenure-track, should be supported by these initiatives (Haras et al., 2017). "The tug and pull between greater focus and greater inclusivity in goals, structures, and services will continue to be the subject of ongoing and careful reflection in the incredibly varied faculty development programs" (Beach et al., 2016, p. 12).

Nations such as Australia, Singapore, Norway, and Switzerland have high performing schools because they champion the academic community with teacher training, providing:

- government-supported clinical training and intensive teaching coursework;
- embedded, ongoing professional development;
- opportunities for innovation and collaboration;
- opportunities for teacher involvement in curriculum and assessment development and decision making;
- mentoring and reduced teaching loads for new teachers; and
- salaries competitive with professionals like engineers (Darling-Hammond et al., 2010; OECD, 2018).

According to Stanford University researchers, the above practices are not standard in the United States. In reality, only a small percentage of U.S. instructors receive sustained, continuous professional development necessary (Darling-Hammond et al., 2010).

Interestingly, high-achieving nations import innovative education teaching models from the United States. Nevertheless, "[w]hy don't current education reformers in the United States make better use of the American education innovations that other countries have been able to utilize to improve the performance of their school systems during the last century" (Sahlberg, 2015, p. 152)? Researchers acknowledge the knowledge base, and recommend the United States emulate successful education programs by (a) providing opportunities to develop research-based training with clinical application opportunities, (b) underwriting mentorships, (c) providing at least ten hours per week for joint curriculum planning, and (d) job-embedded professional development. Recommendations also included providing training and time allocation for ongoing curriculum development by supporting at least ten days per year for regular professional development opportunities (Darling-Hammond et al., 2010).

**Pedagogical Training**

Pedagogical training "involves relatively sophisticated processes underpinned by theoretical models of professional development (Schon, 1987) and change over time in teachers' conceptions of teaching (Trigwell et al. 1994)" (as cited in Gibbs and Coffey 2004, p. 88). Gibbs and Coffey (2016) focused on instructor training efficacy by concentrating research on original investigations. The study identified two main teaching approaches; teacher-focused and student-focused. The teacher-centered approach focuses on content delivery under the assumption that if teachers communicate their knowledge

to students, then the students will have that knowledge (Jonassen & Land, 2012).

However, the student-focused approach emphasizes developing concepts through

teacher-student and student-student interactions with the expectation of developing a

higher order of learning, and thus, achieving greater academic success than more

traditionally taught students (Gibbs & Coffey, 2004; Jonassen & Land, 2012). If

professional development highlights, identifies, and trains faculty, then student learning

and outcomes will improve.

Accordantly, McKee and Tew (2013) supported earlier studies, stating the lecture

system is not the best method to reach today's students. In the digital world of unlimited

data, students "study, work, write and interact" in different ways than in the past, and

future productivity was dependent upon understanding the 'Net Generation.'

Unfortunately, many higher education pursuits embracing new learning styles develop

without consideration of learning outcomes mastery. In order for faculty to "be prepared

to lead their institutions through veritable seismic shifts of the very ground on which their

institutions are built" (p. 13), faculty training methods require reevaluation (McKee &

Tew, 2013).

> Some time ago, a colleague and I reviewed the literature on interventions to
>
> improve instruction. If I were to do that paper again, I would pay special attention
>
> to those changes that improved student learning. The research we looked at then
>
> did not give workshops very high marks. If teachers changed, they did so right
>
> after the event but soon reverted to their old ways of doing things (Weimer, 2014,
>
> para. 2).

A successful faculty development program begins by knowing the audience and identifying targeted learning goals. For instance, Kane (2003) reported that faculty from different departments approached scholarly studies differently, had different learning styles and methods of expression. Thus, faculty disciplines, as well as experience levels, influence needs and learning styles (Kane, 2003). Limited faculty time requires goals are well-defined and communicated. Identifying measurements of success follow goal setting. Ideally, "the impact of a faculty development program should be measured by a thorough and focused assessment plan" (Lancaster et al., 2014, p. 3). Assessing and evaluating development programs allow for continual adjustments and improvements. In regards to pedagogical training, Lancaster et al. (2014) found that common areas assessed included:

- faculty satisfaction as measured through participation and survey data,
- the impact of teaching as measured via student evaluations, syllabi analyses, focus groups, and classroom observations, and
- the impact on student learning as measured by student retention, grade point averages, and artifacts of student learning.

### Faculty Attitudes, Perceptions, and Participation

Faculty are experts, and yet, development is presented such that faculty need remediation (Haras, 2018). This perception makes change tricky and stressful, especially when telling experienced faculty their methods are not the most effective approach for the 21st-century student (Henderson & Lawton, 2015). It seems intuitive that teachers ask how they can help students better learn, yet when offered opportunities, they may become defensive. Gibbs and Coffey (2004) interviewed faculty, finding attitudes varied between departmental training and professional development programs. Often rebuffed and seen

as criticism within academic departments, training was embraced and seen as opportunities within other training programs (Gibbs & Coffey, 2004). Why the variance? Cognitive psychologists suggest there will be no substantial gains in educational reform until we understand why faculty members may resist change (Tagg, 2012).

Like most people, faculty choices are made based on how they interpret change will affect them. Personal and cultural influences may account for the change. Weaver et al. (2016) suggested faculty are influenced by their knowledge about new teaching approaches, how new methods will genuinely improve student learning, their satisfaction with their current practices, and access to peer support. Furthermore, the cultural aspect, colleague and department interest in change, college incentives (or lack of), and status shape decisions (Weaver et al., 2016).

Kahneman's and Tversky's prospect theory suggests that decisions are based on how outcomes are framed (Tagg, 2012). For instance, when asked to select between two alternative programs that had the same outcomes, subjects selected the outcome assuring a small gain as opposed to risk.

> In the first version the alternatives were as follows: If Program A is adopted, 200 people will be saved. If Program B is adopted, there is a one-third probability that 600 people will be saved and a two-thirds probability that no people will be saved" (Tagg, 2012, p. 9).

The researchers concluded that most people exhibit a powerful bias causing them to take measures to avoid loss as opposed to achieving gain.

Tagg (2012) linked Thaler's (1980) endowment effect theory to explain how faculty may perceive their status quo and inherent risk aversion. The endowment theory

suggests that when a person owns something (like knowledge), it becomes more valuable. This concept ties into Bandura's social cognitive theory of self-efficacy. Loss aversion, endowment, and self-efficacy lead to status quo bias. For instance, resisting the adoption of new technology is revealed as a failure of the user to switch from the old system, thus deciding to forego uncertainty and reveal potential ineptitude. According to Tagg (2012), status quo bias is decidedly against the designed change implemented in faculty development.

The campus teaching culture and value affect how faculty perceive and thus respond to development programs. Embracing development requires a culture acknowledging and embracing the risks associated with experimentation. Thus, adopting new training can have a "positive impact on instructor self-efficacy" and "one's belief to help students succeed" and improve instructional practice (Haras et al., 2017, p. 36).

Reporting on the status of faculty development, Murray (2002b) suggested an "attitude adjustment" necessary to achieve a paradigm shift. Training programs "provided a kind of 'alternative culture' that counter-balanced the negative influences" (p. 98) of experienced faculty over newer faculty members (Gibbs & Coffey, 2004). It stands to reason that pedagogical techniques occur at the beginning of a faculty member's career. Institutions providing extensive initial training often provided additional support, including seminars and conferences, mentors, discussion of student feedback surveys, rewards, and potential for promotions (Gibbs & Coffey, 2016; Steinert, 2012). The support and encouragement received from development programs may have contributed to positive changes. However, Gibbs and Coffey (2004) could not identify a specific type of training that resulted in improved student outcomes. Even so, a single list of best

practices is not universally applicable; every college needs to customize programs to fulfill their needs and goals.

## Summary

Faculty are content experts, formally trained in their area of expertise, so why is professional development necessary? Teaching and learning research demonstrate that what faculty know and practice have an influence on how students learn. Most significantly, "these are dynamic behaviors and dispositions that evolve over time and include the right types of content-specific skills often referred to as pedagogical content knowledge" (Solis, 2009, para. 8). As previously established, supporting faculty through professional training enhances student learning and teaching excellence. By its very nature, faculty professional development programs provide necessary and relevant training. "[U]nderstanding what makes professional development effective is critical to understanding the success or failure of many education reforms" (Desimone, 2009, p. 181).

The topic of faculty training has generated a great deal of literature, resulting in calls for renewed efforts to provide relevant pedagogical professional development. However, most existing research identifies different forms and outcomes of professional development from administrative viewpoints, and few studies examine faculty attitudes and perceptions of faculty development programs. Those that have; demonstrated many programs are ineffective and often resented by faculty (Sorcinelli et al., 2006; MacKinnon, 2003; Murray, 2002b). Thus, consideration of faculty attitudes is relevant because "positive attitudes encourage change and lead to greater efficacy of faculty development programs" (Díaz et al., 2010, p. 103). Similarly, negative attitudes inhibit

efficacy, "however, it is important to point out those negative attitudes most often arise from a lack of knowledge about the reason for change" (Díaz et al., 2010, p. 103). Guskey (2009) states, "The most powerful content will make no difference if shared in a context unprepared to receive it and use it. Similarly, a seemingly powerful professional development activity poorly suited to a particular context will likely fail miserably" (p. 229).

# Chapter 3 - Methodology

Chapter three identifies the methods used in this research study. First, the research questions and hypotheses are identified. Next, the methods section defines (a) Bandura's social cognitive theory as the theoretical framework providing the foundation of the research design; (b) the design approach for conducting the research; (c) the parameters for the selection of the study's population and sample; and (d) a description of the instrumentation including the validity and reliability of the study, sampling procedures, methods for data collection and data analysis. This chapter also describes (a) limitations that may impact the study's results, and (b) data management. Chapter three concludes with a summary of the purpose and goals of the study.

## Research Questions and Hypotheses

The central research question for this study: What are community college faculty members' attitudes toward and perceptions of pedagogical (teacher training) professional development? The hypotheses and ensuing research questions:

**RQ 1.** What faculty characteristics are associated with different attitudes about faculty professional development?

$H_O$**:** There is no significant difference in mean faculty attitudes about faculty professional development by faculty characteristics.

$H_1$**:** There are significant differences in mean faculty attitudes about faculty professional development by faculty characteristics.

**RQ 2.** What external (campus culture, administrative support, colleague influences, funding, and time availability) and internal factors (examining perceptions about professional development activities and self-efficacy) predict attitudes about faculty professional development?

$H_O$**:** External and internal factors do not significantly predict attitudes about faculty professional development.

**H$_1$:** External and internal factors do significantly predict attitudes about faculty professional development.

**RQ 3.** What significant associations exist between faculty attitude and participation in professional development activities?

**H$_O$:** There is no significant association between faculty attitude and participation in professional development activities.

**H$_1$:** There is a significant association between faculty attitude and participation in professional development activities.

**RQ 4.** What is the correlation between faculty attitudes about faculty training and their perceptions about the impact on teaching?

**H$_O$:** There is no significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

**H$_1$:** There is no significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

**RQ 5.** Which professional development topics do faculty consider the most useful training?

## Methods

This researcher operated under the assumption of objectivity and conducted non-experimental research using a quantitative survey with categorical and quantitative data (Johnson & Christensen, 2014). The survey provided rating scales to measure responses in order to evaluate descriptive statistics, including the mean, standard deviation, ANOVA, multiple regressions, correlations, and other statistical evaluations dependent upon the hypothesis tested. A correlation between measured variables cannot determine causation but attempts to determine to what degree a relationship exists. A strong relationship infers the need for experimental research to determine causality (Johnson & Christensen, 2014). The data analysis section of this chapter will further validate the use of the selected statistics.

**Theoretical Framework**

The theoretical framework is the foundation, serving as support and structure, guiding the research design and variables measured (Creswell, 2014).  Thus, Bandura's social cognitive theory (SCT) provided a comprehensive framework to explain (a) the interacting influences of the person, environment, and behavior; and (b) the interactions of faculty motivation and action (LaMorte, 2016). SCT guided the selection of the independent and dependent variables used throughout this study while also explaining the results of the study.

In the manner that learning is holistic, people learn through their own experiences, through observations of others, and the consequences of observed and experienced actions (Figure 3-1). Moreover, Bandura explains that if teachers participate in intriguing courses, and they enjoy the experiences, they are likely to employ learned tools (Bandura, 2002). As such, SCT serves as an essential framework explaining the effectiveness of professional learning (Watson, 2014).

Figure 3-1

*Bandura's Social Cognitive Theory*
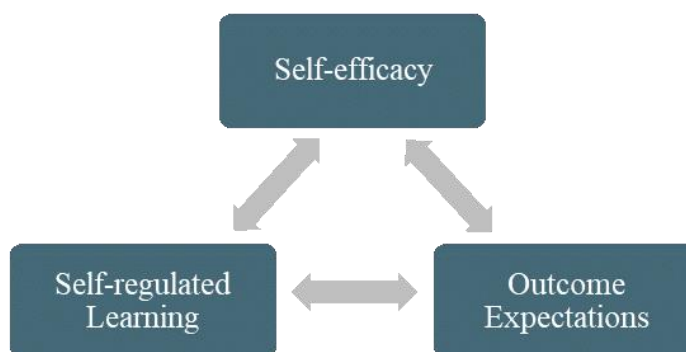
*Note.* The Social Cognitive Theory (SCT) as adapted from Bandura, A. Social Foundations of Thought and Action: A Social Cognitive Theory, 1986.

Bandura (1997) further explores the personal factors of SCT, identifying three key aspects: self-efficacy, outcome expectations, and self-regulated learning (Figure 3-2). "The self is socially constituted, but, by exercising self-influence, individuals are partial contributors to what they become and do" (Bandura 1997, p. 6). People typically select tasks and activities where they feel they can succeed; their self-efficacy determines the difficulty they are willing to undertake, and their resiliency when challenged (Bandura, 1993; Pajares, 2002).

Figure 3-2

*Bandura's Three-Point Reciprocal Model*
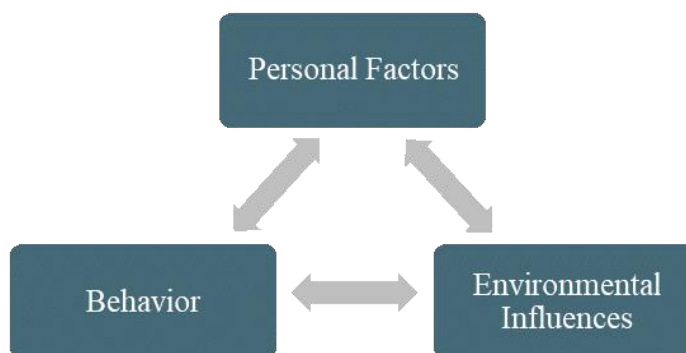


*Note.* Bandura's key aspects within the personal aspects affect adult learning (Adapted from Bandura, 1997).

The teaching profession is not an isolated endeavor; there are interactions among peers, administrators, students, and job and community expectations. As such, "Bandura expanded the conception of human agency to include the collective agency. People work together on shared beliefs about their capabilities and common aspirations to better their

lives" (Pajares, 2002, p.2). In the case of professional development, motivation, and willingness to engage depends on whether one's peers or superiors support participation. Faculty are motivated when their colleagues are engaged, or when others build confidence through constructive feedback and reward.

Because of the reciprocal nature of SCT, and because "The experiences generated by behavior also partly determine . . . subsequent behavior" (Bandura, 1977, p. 9), program developers can facilitate faculty learning by challenging self-beliefs (i.e., styles of learning) and habits of thought (i.e., about student success). This can improve teaching skills and practices and alter classroom behaviors that may otherwise undermine success. Faculty attitudes act as catalysts or inhibitors in the decision to participate in the desired behavior.

The conceptual model applied SCT, identifying the interactions of faculty characteristics with internal and external factors, and how different factors influence faculty characteristics, attitudes, and perceptions, specific to this study (Figure 3-3). For this study, internal factors were separated into demographic items (personal characteristics) and internal perceptions. Personal characteristics included teaching load, teacher training received during the pursuit of academic degree, highest academic degree earned, tenure status, primary teaching discipline, years of service to the current institution, teaching experience, and role at the college. Internal perceptions included faculty attitude about teacher training activities and self-efficacy. External or environmental factors included perceptions about the campus culture encompassing administrative support, colleague influence, and the availability of funds, and time for

participation. Behavior was identified by participation in faculty development activities and subsequent use of development tools in the classroom.

Figure 3-3

*A Conceptual Model of Interactions*
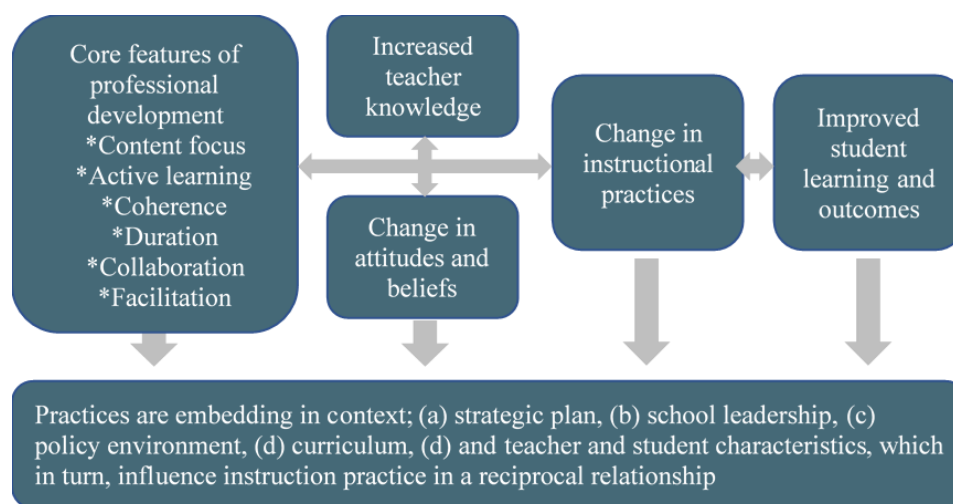


*Note.* A conceptual model of factor interactions related to faculty perceptions of professional development (Adapted from Desimone, 2009).

## Design Approach

Bandura's social cognitive theory (SCT) guided this study, explaining human behavior as determined by changing personal factors, environmental factors, and behavior. The comparative design of this research employed Bandura's SCT in a non-experimental, scaled survey to collect quantitative data. Quantitative research provides an empirical observation of cause and effect. The numeric research design is measured objectively, allowing the researcher to draw logical conclusions to relationships from evidence and reduce potential researcher bias (Johnson & Christensen, 2014). Furthermore, quantitative research seeks explanations and predictions "to establish,

confirm, or validate relationships and to develop generalizations that contribute to theory" (Dansieh, 2015, p. 410).

Quantitative research allowed the researcher to collect data from a larger sample population than would be feasible using qualitative or mixed methods research designs. The advantage is that a larger sample size can be more universally applicable (Johnson & Christensen, 2014). For instance, a qualitative interview process typically has a smaller sample, which could skew to that particular sample and not represent the population demographics. Furthermore, implementing a sequential mixed methods design may have negatively affected participant availability (Wisdom & Creswell, 2013). In turn, small sample size, and lack of consistent participation potentially leads to administrators and others dismissing the results (Johnson & Christensen, 2014).

The survey design included an emphasis on deductive reasoning, hypothesis testing, explanation, prediction, and a standardized method of data collection. Furthermore, it allowed the researcher to make comparisons among the respondents in statistical analysis and correlation analysis of attitudes, perceptions, behaviors, and other variables (Creswell, 2012). Within the large sample size, survey participants are more likely to represent the general faculty population investigated, with results more accurately representing the population's characteristics (Johnson & Christensen, 2014).

*Variables*

The dependent variable included faculty attitudes of professional development. The independent variables, as informed by Bandura's SCT, included faculty characteristics, intrinsic and extrinsic variables. Specifically, the independent variables associated with faculty characteristics included the average number of hours worked per

week, average teaching load, teaching training received while in school, highest

education level attained, tenure status, years as an instructor, and position serving the

college. Additional independent variables included self-efficacy, campus culture, time

and funds availability, and administrative and colleague support. Independent variables

included faculty implementation of learned tools and participant perceptions of student

improvement in the classroom.

### *Site Selection*

The researcher selected the Texas community college faculty as the target

population for this study. 50 Texas community college districts serve over 726,699

students ([Appendix B- Texas Districts Map](#)) (Texas Higher Education Coordinating

Board (THECB), 2018). Texas delineates community colleges by peer groups that are

determined by the number of students served. Small campuses serve up to 3,000 students,

medium campuses serve up to 9,000 students, large campuses serve up to 18,000

students, and very large campuses serve over 18,000 students (Table 3-1) (THECB, n.d.).

However, within the 50 service areas, there are 82 independent campuses. Because

campuses act independently, the researcher considered each campus individually. Table

3-1 provides the frequency of 82 Texas community college campuses according to the

THECB size parameters.

Table 3-1

*Frequency of Texas Community College Campuses Grouped According to Number of*
*Students Served*

| Number of Students Served | Frequency |
|---|---|
| Up to 3,000 | 15 |

| | |
|---|---|
| 3,001-9,000 | 39 |
| 9,001-18,000 | 20 |
| Greater than 18,000 | 8 |

## Population and Sample

This study's target population included Texas community college full-time and part-time faculty across disciplines, ranks, and tenure status. Texas Community College Teacher Association (TCCTA) (2018) reports that 12,221 full-time faculty and 22,455 part-time faculty are employed statewide. Thus, the sampling frame was based on 33,676 Texas community college faculty.

### *Selection of Participants*

A stratified random sample "provides a more representative sample than a strictly simple random sample" (Lunenburg & Irby, 2008, p. 167). Therefore, stratified random sampling selection was employed to achieve faculty representation across different campus sizes. To determine an appropriate survey sample size, Qualtrics® online sample size calculator was employed. Adequate sample size is essential to use data and generalize research findings (Creswell, 2014). With a 95% confidence interval and a margin of error of plus-or-minus 5%, the sample size for a population size of 33, 676 is 380 samples. The researcher determined that 15 percent of each stratification would allow for an acceptable sample size, resulting in a sample of 12 campuses (Table 3.2). Campus selection involved assigning a number to each campus, and then a random number generator (Randomness and Integrity Services Ltd., 2019) produced the numbers as outlined.

Table 3-2

*Sample Size of Texas Community College Campuses Representing Each Stratification*

| Campus Size | Number of Campuses |
|---|:---:|
| Up to 3,000 | 2 |
| 3,001-9,000 | 6 |
| 9,001-18,000 | 3 |
| Greater than 18,000 | 1 |

Following sample selection, the researcher requested permission for faculty participation from campus or district administrators. Administrators served as gatekeepers, determining access to potential participants (Laerd Dissertation, 2012). Some campuses declined participation, while others requested participation, and as such, a total of 14 campuses were surveyed (Table 3-3).

Table 3-3

*Texas Community College Campuses Surveyed Within Each Group*

| Campus Size | Number of Campuses |
|---|:---:|
| 100-3,000 | 2 |
| 3,001-9,000 | 7 |
| 9,001-18,000 | 4 |
| 18,001-50,000 | 1 |

**Instrumentation**

Instrumentation is defined as the course of action; developing, testing, and using the study instrument (Creswell, 2012). In an exhaustive review of the literature, relevant instrumentation, a survey tool, was identified and modified to suit the needs of this study. Topics reviewed included professional development, pedagogical or teacher training,

professional developer opinions, and faculty attitudes and perceptions. The task required deciding specific items to include from surveys such as the Teachers' Attitudes about Professional Development (TAP) survey and the College Teaching Self-Efficacy Scale (CTSES). The surveys focused on similar areas of interest, including behaviors, and were comparable to other well-validated measures (Chang et al., 2011; Torff et al., 2005). Other surveys examined included those used by Persellin and Goodrick (2010), Brooks et al. (2011), and Torff and Sessions (2008).

*Survey Tool*

In this study, the web-based survey tool, SurveyMonkey®, was used to build and measure variables outlined in the research questions and hypotheses (Appendix C). Denscombe (2014) determined that data collected via Internet surveys are reliable and not significantly different from more traditional methods. Additionally, "Good questionnaires are easy to administer, yield reliable data, and accurately measure the constructs for which the survey was designed" (Pasek & Krosnick, 2010, p. 3). This method also allows for anonymous and confidential responses, creating an opportunity for responders to answer in a frank manner (Denscombe, 2014; Pasek & Krosnick, 2010).

*Survey Development*

Johnson and Christensen (2014) recommend that questionnaire item construction requires careful reflection of the following principles.

- A. The questionnaire items relates to the research objectives.
- B. The researcher understands the participants.
- C. The questionnaire is written in language familiar to the participants.
- D. Questionnaire items are clear, precise, and succinct; items are not leading or loaded.
- E. Questions do not combine two or more objectives.

F.      The items avoid double negatives.

The survey consisted of closed-ended questions and provided mutually exclusive response categories that did not overlap. The researcher developed a fully anchored rating scale and included reverse scoring items to mitigate response bias (Johnson & Christensen, 2014; Torff et al., 2005).

Roueche et al. (1995) described professional or faculty development as "systematic processes offered to groups of teachers in response to organizational needs and designed to promote growth, understanding, and improvement in the classroom" (p. 82). Accordingly, at the onset of the survey questions about faculty professional development experiences, the survey defined professional or faculty development to include any event designed to improve teaching skills.

The survey included demographic, characteristic, and other prompts that permitted one answer and multiple-choice prompts that permitted multiple answers. Most inquiries were multi-layered.  For instance, the *Faculty Attitudes and Perceptions* section included prompts four-seven, each having several topics to address. For example, prompt six requested insight into how faculty development affected teaching using four items requiring responses (Figure 3-4).

Figure 3-4

*Survey Item 6*



*Note.* Participants respond to the prompt by addressing a series of items, each requiring a response.

The demographic questions asked about teaching load, teaching discipline, academic rank, highest academic degree earned, and amount of pedagogical training received while attending school, years of teaching experience, and tenure status. For analysis purposes, the teaching disciplines were collapsed into categories based on typical academic divisions found in Texas community colleges.

Survey items were designed to query participants about internal factors, including perceptions about the effectiveness of faculty training and self-efficacy. Survey items were also designed to query participants about external (environmental) factors, including perceptions of campus culture, administrative support, colleague influence, funding, and time. The survey is found in Appendix D.

The electronic survey provided an efficient means of gathering a large amount of data (Watson, 1998) while reducing potential bias (Creswell, 2012). However, it is noted

that the survey did not measure people's behavior, only their perceptions of those behaviors. Thus, precise wording was necessary when constructing the survey instrument to procure the desired information (Creswell, 2012; Watson, 1998).

**Validity and Reliability**

Two concepts that studies are concerned with are the concepts of validity and reliability. Validity refers to the degree to which a construct is accurately measured—does the instrument measure what it purports to measure. Reliability refers to whether that construct is consistently measured—will the same results be achieved on repeated measures (Heale & Twycross, 2015). Krosnick and Presser (2010) determined that reliability and validity are higher for Likert scales with a moderate number of points. As a result, the current study used three, five, or six-point scales. A matrix ensured alignment to research questions to reduce threats to validity and reliability (Table 3-4).

Table 3-4

*Alignment of Survey Questions and Research Questions*

| Survey Headings | Survey Item | Bandura's SCT | Research Questions |
|---|---|---|---|
| Faculty Development Experiences | 1, 2, 3 | Experiences | Established whether faculty attended professional development. |
| Faculty Attitudes and Perceptions | 4, 5 | Personal Factors | RQ 1. What faculty characteristics (IV) are associated with different attitudes (DV) about faculty professional development? |
| Faculty Attitudes and Perceptions | 6, 7, | Environmental Influences | RQ 2. What external and internal factors (IV) predict attitudes (DV) about faculty professional development? |
| Campus Culture | 8, 9, 10, 11, 12, 13 | Environmental Influences, Behavior | RQ 2. What external and internal factors (IV) predict attitudes (DV) about faculty professional development? |

Table 3-4

*Alignment of Survey Questions and Research Questions*

| Survey Headings | Survey Item | Bandura's SCT | Research Questions |
|---|---|---|---|
| Participation | 14 | Environmental Influences, Behavior | RQ 3. What is the association between faculty attitude and participation in faculty professional development activities? |
| Participation | 5, 15, 16 | Behavior | RQ 4. What is the correlation between faculty attitudes about faculty training and their perceptions of the impact on teaching? |
| Participation | 17 | Environmental Influences, Behavior | Which professional development topics do faculty perceive to be useful for training? |
| Average Work Week | 18, 19 | Personal Factors | Faculty characteristics. |
| Faculty Characteristics | 20, 21, 22, 23, 24, 25, 26, 27 | Personal Factors | Faculty characteristics. |

RQ Research Question, IV Independent Variable, DV Dependent Variable
Bandura's SCT determinants

This matrix helped ensure that the survey instrument was accurately measuring

concepts such as faculty characteristics and both internal and external factors that may

impact attitudes. The resulting instrument was then reviewed by both an outside

consultant and dissertation committee to ensure further the instrument was accurately

measuring what it claimed. Moreover, to refine the instrument, a field test was conducted

at a single college among seven faculty members and institutional effectiveness and

research administrator. Recommendations were based on the following questions:

A.      Were the instructions clear and understandable?

B.      Was the survey easy to navigate? Did you experience technical difficulties?

C.      Did the questions provide sufficient detail?

D.      Were there adequate answer choices?

E.      Were there irrelevant questions?

F.      Did you see any typographical errors?

G.      Was the survey convenient and not too time-consuming?

H.      Please share your comments or suggestions that would make this survey more successful (Roberts, 2010).

Following the field test, the researcher reflected on feedback and made revisions to the survey.

**Sampling Procedures**

Sampling was conducted following compliance with requirements outlined in the Kansas State University (KSU) Institutional Review Board (IRB) Operating Procedures (Kansas State University, 2018), the Collaborative Institutional Training Initiative (CITI, 2019), and following site approval. Approval from the IRB was partly contingent on ensuring that participant names and identification information would not be asked during the survey and that data collection would remain confidential.

The researcher submitted research applications to appropriate chief academic administrators and institutional research representatives of each institution. Correspondences with Academic Officers, Institutional Effectiveness and Research Administrators, and IRB committee members requested permission to allow faculty participation. Communications included the purpose of the study, methods, and terms of participation (Appendix E). Requests and process approval occurred during June, July, August, and September 2019.

Participating administrators optioned to distribute the survey instrument on behalf of the researcher or provide the researcher access to faculty email addresses. The sampling frame was based on the administration's willingness to participate and the availability of faculty information.

Teaching members of each participating campus received an invitation that included the survey's purpose and goal, and information regarding the confidentiality, voluntariness of participation, and anonymous nature of the study. The form also stated the faculty's right to withdraw from the study and incorporated consent to participate. Additionally, the recruitment email granted the researcher permission to use survey responses in a dissertation (Creswell, 2012; Watson, 1998) (Appendix F). Self-selected random sampling occurred based on the concept that faculty volunteered to participate and were not approached by the researcher directly (Laerd Dissertation, 2012).

**Data Collection**

Distribution of the recruitment invitation occurred in staggered periods depending on when a site consented to participation. One survey was completed in June 2019, with other surveys completed throughout September and October 2019. Participants were given 14 days to complete the survey (Johnson & Christensen, 2014). Following the initial distribution of the survey, a reminder email was sent to non-participants or those that did not complete the survey (Fan & Yan, 2010; Watson, 1998). According to Zong (n.d.), survey responses generally occur within 48 hours, and reminders were sent on or about the third day of the survey.

If campus administrators elected to provide email lists, the researcher sent the letter of invitations along with the survey link. Administrators electing to serve as a

campus liaison for the researcher received the faculty letter of invitation and the survey link. Liaisons were also asked to send reminder emails to faculty.

**Data Analysis and Statistical Techniques**

Survey results were tracked in SurveyMonkey and then data imported into Excel and SPSS analytics software for statistical analysis in order to address the research questions. Two types of statistical techniques used included descriptive statistics and inferential statistics. Descriptive statistics provided frequency and percentages for categorical variables, and mean and standard deviation measured continuous variables. Inferential statistics were used because this research aimed to determine the relationship between variables. ANOVA was used to address RQ1, while multiple regressions addressed RQ2, RQ3, and RQ4. RQ5 was addressed by conducting descriptive statistics.

RQ1 included the continuous dependent variable, attitudes about faculty professional development, and the following categorical independent variables: average number of hours worked per week, teaching load, teaching training received, highest education level earned, tenure status, years as an instructor, and position at college. ANOVA measured significant mean differences in the dependent variable among different categories/levels of one or more categorical independent variables.

Multiple regression was employed to address RQ2, including the continuous dependent variable, attitudes about faculty professional development, and the independent variables, internal and external factors. The independent variables additionally included: average number of hours worked per week, teaching load, teaching training received, and highest education level, tenure status, years as an instructor, and position at college. The change in significance was then measured to see if the addition of

these other faculty/institutional/personal characteristics increased the predictability of the model.  Multiple regression was performed for RQ3 and RQ4 with the dependent variable, attitudes, independent variables, participation in faculty professional development (RQ3), and the impact on teaching (RQ4).

Before statistical testing, assessments for the assumptions for parametric tests occurred. ANOVA assumptions include normality, no presence of outlier, and homogeneity of variances. First, an investigation of skewness and kurtosis statistics and histograms tested for normality. To determine whether the data followed a normal distribution, skewness statistics greater than three indicated strong non-normality, and kurtosis statistics between 10 and 20 also indicated non-normality (Kline, 2011). Second, checking the presence of outliers was conducted by investigating z-scores of the data set. Z-scores greater than three or less than -3 were outliers (Kline, 2011). Lastly, Levene's test, which tests the null hypothesis that the variance is equal across groups, assessed the assumption of homogeneity of variances.  A p-value of less than .05 indicated a violation of the assumption. In contrast, a *p*-value greater than the level of significance value of .05 showed homogeneity, meaning that the variance of each group of that independent variable be equal or homogenous**.** If violations of the required assumptions occurred, the non-parametric version of the ANOVA, Kruskal-Wallis test, was employed.

The assumptions of multiple regression were also tested. These assumptions included linearity, normality, homoscedasticity, and multicollinearity. Plots of the standardized residuals and the standardized predicted values were examined to assess linearity and homoscedasticity (Osborne & Waters, 2002). A Shapiro-Wilk test of normality determined the normal distribution of the data (Ghasemi & Zahediasl, 2012).

Kurtosis and skewness statistics were generated to assess normality further. Finally, the variance inflation factor (VIF) was calculated for each variable to determine if there was a violation of multicollinearity between any two variables. If the VIF scores fell below 10, there was no violation of the assumption of multicollinearity (Field, Discovering statistics using SPSS, 2009). Outlier detection was assessed through visual inspection of the boxplots (Osborne & Waters, 2002).

Additionally, the reliability of the survey instrument was measured. "Reliability of an instrument is closely associated with its validity. An instrument cannot be valid unless it is reliable" (Tavakol & Dennick, 2011). Cronbach's alpha was employed to establish the internal reliability of the multiple Likert scale items used to measure the same underlying constructs. Cronbach's alpha between 0.7- 0.95 indicated that multi-item measures would be averaged for further analysis (Bedeian, 2014).

**Limitations**

Limitations are defined as issues within a research study over which the researcher has little or no control (Lunenburg & Irby, 2008). As such, imperative to this study is the awareness of this study's factors potentially impacting relationships between independent and dependent variables, and the data interpretation. Teaching faculty are diverse and complex, and campuses vary widely by geography, size, available resources, and faculty and student demographics. The focal point of this study was teaching faculty at Texas community colleges; thus, the ability to generalize to the population of all teaching faculty is limited. However, community college faculty populations share many characteristics (Flynn et al., 2017; Twombly & Townsend, 2008) and can thus be

cautiously generalized. Further research will need to address items such as additional

geographic regions and levels of education.

The Likert-style questionnaire survey did not provide a means for free response

answers, limiting interpretation of faculty perceptions (Krosnick & Presser, 2010).

Furthermore, many participants may avoid selecting extreme measures like strongly

disagree or strongly agree, concealing real attitudes and behaviors (Theofanidis &

Fountouki, 2019). The nature of a self-administered survey may have introduced

reporting bias, dependent upon individual experiences and interpretations. Additionally,

potential self-reporting bias of surveyed faculty may have affected reliability; "self-

reports might be confounded by pressure for positive self-presentation, [and] affective

feelings" (Bedeian, 2014).

Another limitation is the voluntary nature of the study. First, there is no "good

time" in the year when faculty are not busy. The researcher carefully considered the

timing of delivering the survey. According to interviews with dissertation committee

members, sending items requiring action by faculty should not be sent during the summer

or the first or final weeks of classes. As such, most surveys were sent out after a few

weeks into the fall semester.

Using an email linked electronic survey may have limited the number of

responses. With the ever-growing deluge of scams, phishing, and unsolicited emails,

many colleges have implemented spam-blocking tools (Fan & Yan, 2010). For instance,

after receiving no survey responses from a college, the researcher contacted the college

IT department to release the survey from the "spam folder." Additionally, many

campuses provide training and attach warnings about opening unsolicited or unfamiliar

emails. In order to combat this limitation, the researcher requested that campus administrators send an email to potential participants informing them of the survey.

## Data Management

The researcher assumed responsibility as a good steward for data collected, obligated to ensure and maintain data confidentiality while protecting the privacy of research participants. Data were collected and imported into an Excel spreadsheet. The data was then coded, formatted, and imported into SPSS statistical software for analysis. All data were stored as password-protected files on a USB flash drive. The researcher will continue to maintain integrity, storing, and preserving data for five years by securely storing the electronic data on a USB flash drive in the confines of a locked file cabinet in the researcher's home office.

## Summary

The purpose of the quantitative study was to examine the perceptions of faculty development programs and subsequent application of learning in the classroom. The goal of this study was to provide insight to community college administrators, faculty development developers, and faculty as they seek to develop meaningful and applicable faculty training that will positively influence student success. This chapter explained the research methodology, design, and survey sampling employed. The chapter also explained the variables, tests for validity, and methods of data analyses, as well as limitations and assumptions. Chapter four presents the findings from the data collected.

# Chapter 4 - Presentation and Analysis of Data

Community college enrollment continues growing to fulfill the needs of the twenty-first-century student population (AACC, 2018). Serving a diverse and growing student population requires that faculty members learn and adopt new pedagogical approaches (AACC, 2014). With the mounting pressures for improved student success, many community colleges have adopted professional development programs. This study intended to investigate Texas community college faculty attitudes and perceptions about teacher training professional development by examining internal and external factors predicting attitudes, and how faculty perceive professional development experiences influence teaching and student learning.

Attitudes determined by perceptions about self, cognitive, behavioral, and affective components guide behavior (Stagnor, 2013). As such, administrators and professional development developers need to understand faculty attitudes and perceptions to invest wisely in faculty professional development. "Attitudes are evaluations," and as such, can be assessed using standard measuring techniques (Stagnor, 2013).

An online survey developed and executed using SurveyMonkey® generated data for this research. The survey was designed and tested for validity. The survey consisted of 27 closed-ended items, of which 15 were Likert scale matrix items. The Likert items mostly consisted of five points based on the scales from *Strongly Disagree* to *Strongly Agree*, or from *Never* to *Very Frequently*. Other questions established participation in faculty development activities and demographic information such as teaching load, prior teacher training, academic degree earned, teaching discipline, teaching experience, and position at the college.

Teaching members from 14 Texas community colleges received emails with an invitation to participate, consent to participate, and the survey link. The faculty list included campus members who taught at least one course in a typical semester, including teaching administrators, deans, part-time faculty, and full-time faculty. Due to different institutional campus policies distributing the invitation and survey consisted of multiple approaches. These approaches included the researcher sending the survey directly to faculty and sending the survey to institutions for distribution. A total of 997 responses were anonymously received. Following data collection, the 14 campuses were de-identified by assigning pseudonyms. There was no mechanism requiring participants to answer a question; thus, sample sizes varied within the results. Of the 997 participants that consented to partake in the survey, 786 (78.9%) completed the entire survey, exceeding the adequate sample size of 380 participants.

Survey data were analyzed using Excel and SPSS statistical software. One-way Analysis of Variance (ANOVA) and multiple regressions was performed to determine the relationship among survey variables. A priori level of significance for all statistical analyses was set at an alpha level of 0.05.

Chapter four focuses on analysis while exploring associations between faculty attitudes and perceptions and results produced from the survey instrument used in the study. The first stage in data analysis was to explore possible patterns of the data collected; thus, instrument reliability was initially reported. Next, descriptive statistics organized and summarized numerical data. Employing descriptive statistics determined potential relationships between variables investigated. Frequency tables were constructed

for variables of interest. A series of ANOVAs were completed to determine if faculty characteristics or opinions were a predictor of significant relationships.

## Instrument Reliability

It was essential to see whether data met the criteria necessary for the parametric statistics used in this research. Table 4-1 below depicts the reliability of each scale utilized, as measured by the Cronbach's alpha. Cronbach's alpha measured internal consistency or reliability of the psychometric instrument. Values above 0.7 suggest reliability.

Table 4-1

*Cronbach's Alpha Reliability Measure*

| Measure/Variable | Number of Items | Cronbach's alpha |
|---|---|---|
| Professional Development Attitudes | 13 | 0.825 |
| Self-efficacy | 5 | 0.822 |
| Campus Culture | 5 | 0.481 |
| Administration Support | 8 | 0.804 |
| Colleague Interaction | 5 | 0.488 |
| Behavior Results | 5 | 0.845 |
| Change in Activities | 9 | 0.833 |
| Student Learning Impact | 9 | 0.925 |

## Descriptive Statistics of Study Variables

The sample population was surveyed using non-probability sampling from 14 community colleges across Texas. To control against potential population bias, the survey was administered on colleges that were grouped according to the number of students served and then randomly selected.

**Frequency of Faculty Characteristics**

The survey instrument contained items intended to produce demographic data about the educators within each participating campus. Full-time and part-time participants were queried about the types of faculty development attended in the past two years, and how many hours per week they dedicated to their institute. Additionally, prompts asked participants to describe the number of courses taught in a typical semester, how much teacher training they received while pursuing their academic degree, what was the highest degree earned, tenure status, and primary teaching discipline. Further inquiries included years of teaching experience, years of service to their institute, and position at the college. Demographical data contextualized results and identified differences between variables.

Regarding college work hours per week, 172 (17.3%) participants worked 41-50 hours. This was followed by 158 (15.8%) working 31-40 hours; 139 (13.9%) 11-20 hours; 139 (13.9%) > 50 hours; 98 (9.8%) 21-30 hours; and 92 (9.2%) 0-10 hours. One hundred ninety-nine (20.0%) did not provide a response (Table 4-2).

Table 4-2

*Weekly Hours Worked by Full-time and Part-time Faculty*

| Hours | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| 0-10 hrs | 92 | 9.2 | 11.5 | 11.5 |
| 11-20 hrs | 139 | 13.9 | 17.4 | 28.9 |
| 21-30 hrs | 98 | 9.8 | 12.3 | 41.2 |
| 31-40 hrs | 158 | 15.8 | 19.8 | 61.0 |
| 41-50 hrs | 172 | 17.3 | 21.6 | 82.6 |
| > 50 hrs | 139 | 13.9 | 17.4 | 100.0 |
| Total | 798 | 80.0 | 100.0 | |
| Missing | 199 | 20.0 | | |
| Total | 997 | 100.0 | | |

Next, the teaching load was examined. Many participants taught one to three courses, 398 (39.9%); followed by four to six courses, 286 (28.7%); seven or more courses, 111 (11.1%); and no courses (10%). 192 (19.3%) participants did not respond (Table 4-3).

Table 4-3

*Teaching Load*

| Course Load | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| 0 courses | 10 | 1.0 | 1.2 | 1.2 |
| 1-3 courses | 398 | 39.9 | 49.4 | 50.7 |
| 4-6 courses | 286 | 28.7 | 35.5 | 86.2 |
| 7 or more courses | 111 | 11.1 | 13.8 | 100.0 |
| Total | 805 | 80.7 | 100.0 | |
| Missing | 192 | 19.3 | | |
| Total | 997 | 100.0 | | |

The highest education level attained was assessed. Many participants held a Master's degree, 484 (48.5%), 223 (22.4%) participants held a Doctorate, while 66 (6.6%) held a Bachelor's degree, 30 (3.0%) held an Associate degree. 194 (19.5%) participants did not respond (Table 4-4).

Table 4-4

*Education Level of Participants*

| Education Level | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Associate | 30 | 3.0 | 3.7 | 3.7 |
| Bachelor's | 66 | 6.6 | 8.2 | 12.0 |
| Master's | 484 | 48.5 | 60.3 | 72.2 |
| Doctoral | 223 | 22.4 | 27.8 | 100.0 |
| Total | 803 | 80.5 | 100.0 | |
| Missing | 194 | 19.5 | | |
| Total | 997 | 100.0 | | |

Most participants indicated they were non-tenured, 562 (56.4%), followed by 180 (18.1%) tenured participants, and 56 (5.6%) participants indicated they were on a tenure track. 199 (20.0%) participants did not respond (Table 4-5).

Table 4-5

*Tenure Status of Participants*

| Tenure Status | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Non-tenured | 562 | 56.4 | 70.4 | 70.4 |
| Tenure Track | 56 | 5.6 | 7.0 | 77.4 |
| Tenured | 180 | 18.1 | 22.6 | 100.0 |
| Total | 798 | 80.0 | 100.0 | |
| Missing | 199 | 20.0 | | |
| Total | 997 | 100.0 | | |

In terms of teaching disciplines, 334 (33.5%) of participants identified their disciplines as in the social sciences/humanities/arts (SS/H/A). The natural sciences/mathematics/computer sciences (NS/MC/S) disciplines followed at 196 (19.7%), allied health/workforce training (AH/WT) disciplines at 155 (15.5%), business and accounting (B/A) disciplines at 57 (5.7%), and education (Ed) discipline at 49 (4.9%). Of the 997 surveys, 206 (20.7%) participants did not respond (Table 4-6).

Table 4-6

*Teaching Discipline of Participants*

| Disciplines | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| SSHA | 334 | 33.5 | 42.2 | 42.2 |
| NS/M/CS | 196 | 19.7 | 24.8 | 67.0 |
| AH/WT | 155 | 15.5 | 19.6 | |
| B/A | 57 | 5.7 | 7.2 | 80.4 |
| Ed | 49 | 4.9 | 6.2 | 73.2 |
| Total | 791 | 79.3 | 100.0 | |
| Missing | 206 | 20.7 | | |
| Total | 997 | 100.0 | | |

Most participants, 278 (27.9 %), reported teaching at their current schools between 0-5 years, followed by 191 (19.2 %) participants reported teaching for 11-20 years.  Participants teaching 6-10 years were 183 (18.4 %), while 148 (14.8 %) reported teaching over 20 years at the same institution. 197 (19.8%) of participants did not respond (Table 4-7).

Table 4-7

*Years Teaching at Current School*

| Years of Teaching | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| 0-5 yrs | 278 | 27.9 | 34.8 | 34.8 |
| 6-10 yrs | 183 | 18.4 | 22.9 | 57.6 |
| 11-20 yrs | 191 | 19.2 | 23.9 | 81.5 |
| >20 yrs | 148 | 14.8 | 18.5 | 100.0 |
| Total | 800 | 80.2 | 100.0 | |
| Missing | 197 | 19.8 | | |
| Total | 997 | 100.0 | | |

The number of years teaching at the college level was reported with 240 (24.1%) participants teaching 11-20 years, followed by 227 (22.8%) teaching more than 20 years, 173 (17.4%) teaching 6-10 years, and 161 (16.1%) 0-5 years, 196 (19.7%) did not respond (Table 4-8).

Table 4-8

*Experience Teaching at the College Level*

| Number of Years Teaching | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| 0-5 yrs | 161 | 16.1 | 20.1 | 20.1 |
| 6-10 yrs | 173 | 17.4 | 21.6 | 41.7 |
| 11-20 yrs | 240 | 24.1 | 30.0 | 71.7 |
| >20 yrs | 227 | 22.8 | 28.3 | 100.0 |
| Total | 801 | 80.3 | 100.0 | |
| Missing | 196 | 19.7 | | |
| Total | 997 | 100.0 | | |

Participant roles at the college were assessed. Most participants were adjuncts, 333 (33.4%), followed by professors, 217 (21.8%); associate professors, 75 (7.5%); instructors/lecturers, 64 (6.4%); department chairs who teach, 56 (5.6%); assistant professors, 45 (4.5%); and administrators who teach, 12 (1.2%). 195 (19.6%) participants did not respond (Table 4-9).

Table 4-9

*Position Served at Current College*

| Position at College | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Adjunct | 333 | 33.4 | 41.5 | 41.5 |
| Instructor/Lecturer | 64 | 6.4 | 8.0 | 49.5 |
| Assistant Professor | 45 | 4.5 | 5.6 | 55.1 |
| Associate Professor | 75 | 7.5 | 9.4 | 64.5 |
| Professor | 217 | 21.8 | 27.1 | 91.5 |
| Department chair | 56 | 5.6 | 7.0 | 98.5 |
| Administrator | 12 | 1.2 | 1.5 | 100.0 |
| Total | 802 | 80.4 | 100.0 | |
| Missing | 195 | 19.6 | | |
| Total | 997 | 100.0 | | |

The study's participants reported the amount of teaching training they received while pursuing their academic degrees. The averaged results were based on a sliding scale with zero representing *no teacher training,* to 100 representing *extensive training*. Faculty members reporting the most training received while pursuing their academic degrees had 6-10 years of college teaching experience (60.22); followed by faculty members with more than 20 years of teaching experience (59.36); 11-20 years of teaching

experience (58.47); 0-5 years teaching experience (57.30). Figure 4.1 depicts the

information.

Figure 4-1

*Average Amount of Training Faculty Members Received During Pursuit of Academic*

*Degrees*
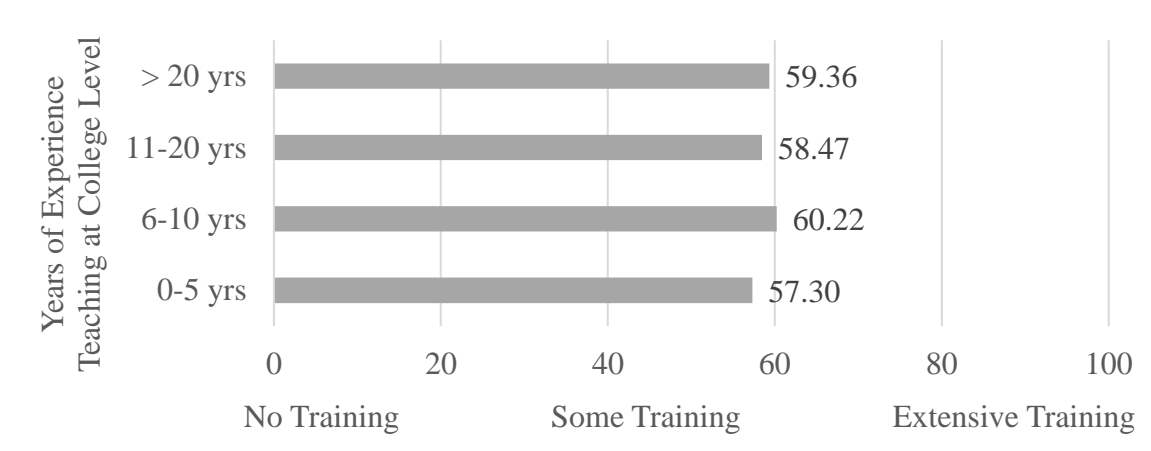


*Note.* Based on years of college teaching experience. On a sliding scale, 0-100, faculty

participants determined the amount of training they received during the pursuit of their

academic degree.

**Mean and Standard Deviation**

Descriptive statistics of the mean (*M*), standard deviation (*SD*), minimum (*Min*),

Maximum (*Max*), skewness, and kurtosis were computed for the continuous study

variables. Each variable had a minimum of 1.00 and a maximum of 5.00. Additionally,

all skewness and kurtosis values were within acceptable ranges in order to establish

normality. Table 4-10 reports the mean, standard deviation, skewness, and kurtosis.

Table 4-10

*Descriptive Statistics for the Continuous Study Variables*

| Variables | *M* | *SD* | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|
| | | | Statistic | Std. Error | Statistic | Std. Error |
| Faculty Opinion | 3.50 | .60 | -.684 | .079 | .982 | .158 |
| PD Affect Change | 2.61 | .95 | .258 | .087 | -.454 | .173 |
| Self-Efficacy | 4.28 | .58 | -1.014 | .081 | 2.663 | .162 |
| Campus Culture | 3.28 | .62 | -.385 | .084 | .387 | .168 |
| Time Availability | 3.09 | .51 | .188 | .084 | .874 | .168 |
| Funding | 2.89 | .66 | -.084 | .085 | 1.125 | .169 |
| Administrative Support | 3.37 | .78 | -.310 | .084 | -.041 | .168 |
| Colleague Influences | 3.38 | .64 | -.492 | .084 | .732 | .168 |
| Behaviors | 3.48 | .84 | -.377 | .086 | -.282 | .172 |
| Change In Activities | 2.61 | .95 | .258 | .087 | -.454 | .173 |
| Student Learning | 3.42 | .91 | -.386 | .089 | -.035 | .178 |

## Hypothesis Testing

SPSS® software platform was used to analyze the following research questions.

The researcher utilized ANOVA to address research question one, and multiple

regression to address research questions two, three, and four. Research question five was

addressed by conducting descriptive statistics. The following are the results of the

analysis for each of the research questions and respective hypotheses.

### Research Question One

ANOVA analysis provided insight into the first research question and hypotheses:

**RQ 1.** What faculty characteristics are associated with different attitudes about

faculty professional development?

**H₀:** There is no significant difference in mean faculty attitudes about faculty

professional development by faculty characteristics.

**H₁:** There are significant differences in mean faculty attitudes about faculty

professional development by faculty characteristics.

A one-way ANOVA was conducted to determine if there was a statistically

significant difference between the means of the dependent variable (DV), attitudes about

faculty professional development based on the independent variable (IV) of weekly hours

of college work. Participants were classified: 0-10 hours, 11-20 hours, 21-30 hours, 31-40

hours, 41-50 hours, and more than 50 hours. There were no outliers, and the data were

normally distributed for each group. As assessed by Levene's Test of Homogeneity of

Variance ($p = .031$), homogeneity of variances was violated. Faculty attitude was

statistically significantly different between the different number of hours worked. Thus,

Games-Howell post hoc analyses were conducted to compare groupings.

The results of the overall ANOVA were significant, $F(5, 788) = 2.743$, $p = .018$.

Tukey post hoc comparisons did reveal statistically significant differences between the

31-40 hours ($M = 3.61$, $SD = 0.53$) and greater than 50 hours ($M = 3.41$, $SD = 0.66$)

groups, with the 31 - 40 hours group having a greater mean attitude compared with the $>$

50 hours group. Tables 4-11 and 4-12 depict this information.

Table 4-11

*Descriptive Statistics for Attitudes Toward PD as a Function of Weekly College Hours Worked*

| Hours Worked | N | M | SD | SE | 95% *CI* for *M* | | Min | Max |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | Lower Bound | Upper Bound | | |
| 0 - 10 hrs | 92 | 3.50 | .52 | .05 | 3.39 | 3.61 | 2.38 | 4.80 |
| 11 - 20 hrs | 137 | 3.59 | .56 | .05 | 3.50 | 3.69 | 2.00 | 4.69 |
| 21 - 30 hrs | 98 | 3.45 | .58 | .06 | 3.33 | 3.56 | 1.92 | 4.54 |
| 31 - 40 hrs | 154 | 3.61 | .53 | .04 | 3.52 | 3.69 | 1.85 | 5.00 |
| 41 - 50 hrs | 171 | 3.58 | .59 | .05 | 3.49 | 3.67 | 1.77 | 5.00 |
| > 50 hrs | 137 | 3.41 | .66 | .06 | 3.30 | 3.52 | 1.69 | 4.77 |
| Total | 789 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

*Note*. M, SD, SE, CI are used to represent mean, standard deviation, standard error, and confidence intervals, respectively. Higher mean scores indicate a more positive attitude.

Table 4-12

*ANOVA Analysis of Attitudes Using Average Weekly College Hours Worked Criterion*

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
| --- | --- | --- | --- | --- | --- |
| Between Groups | 4.570 | 5 | .914 | 2.743 | .018 |
| Within Groups | 260.894 | 783 | .333 | | |
| Total | 265.463 | 788 | | | |

The second ANOVA was conducted to determine if there was a statistically significant difference between the attitudes about faculty professional development (DV) means based on the independent variable (IV) of average course load. Participants were classified: no coarse load, 1-3 course loads, 4-6 course loads, and seven or more course loads. There were no outliers, and the data were normally distributed for each group. No

violation of the homogeneity of variances was assessed by Levene's Test of

Homogeneity of Variance ($p = .062$). Thus, Tukey's post hoc tests were conducted to

compare groupings. The results of the overall ANOVA were not significant, $F(3,794) =$

2.052, $p = .105$. No Tukey post hoc comparisons revealed any significant differences in

attitude score based on course load ($p > .05$). Table 4-13 and 4-14 below depict this

information.

Table 4-13

*Descriptive Statistics for Attitudes Toward PD as a Function of Course Load*

| Average Course Load | N | *M* | *D* | *E* | 95% *CI* for *M* | | Min | Max |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 0 courses | 10 | 3.66 | .53 | .17 | 3.28 | 4.04 | 2.77 | 4.46 |
| 1 - 3 courses | 392 | 3.58 | .55 | .03 | 3.52 | 3.63 | 1.92 | 5.00 |
| 4 - 6 courses | 282 | 3.48 | .58 | .03 | 3.42 | 3.55 | 1.69 | 4.69 |
| 7 or more courses | 111 | 3.47 | .66 | .06 | 3.34 | 3.59 | 1.77 | 4.77 |
| Total | 795 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-14

*ANOVA Analysis of Attitudes Using Average Course Load Criterion*

| ANOVA | Sum of Squares | *df* | Mean Square | *F* | *Sig.* |
|---|---|---|---|---|---|
| Between Groups | 2.053 | 3 | .684 | 2.052 | .105 |
| Within Groups | 263.791 | 791 | .333 | | |
| Total | 265.844 | 794 | | | |

The third ANOVA performed included the highest education level attained (IV) and attitudes about faculty professional development (DV). Participants were grouped into Associate Degree, Bachelor's Degree, Master's Degree, and Doctoral. There was a violation of the homogeneity of variances assumption as assessed by a statistically significant Levene's test ($p = .008$). Thus, Games-Howell post hoc tests were conducted to compare groupings. The results of the overall ANOVA were significant, $F(3, 792) = 2.627$, $p = .049$. However, no Games-Howell (or Tukey) post hoc comparisons revealed any significant differences in mean attitude based on course load. Tables 4-15 and 4-16 depict this information.

Table 4-15

*Descriptive Statistics for Attitudes Toward PD as a Function of Highest Education Level Attained*

| Degrees Held | *N* | *M* | *SD* | *SE* | 95% *CI* for *M* | | Min | Max |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| Associate's | 29 | 3.48 | .50 | .09 | 3.29 | 3.67 | 2.62 | 4.64 |
| Bachelor's | 66 | 3.64 | .60 | .07 | 3.50 | 3.79 | 2.23 | 5.00 |
| Master's | 481 | 3.56 | .55 | .02 | 3.51 | 3.60 | 1.69 | 4.77 |
| Doctoral | 217 | 3.45 | .64 | .04 | 3.36 | 3.54 | 1.77 | 4.80 |
| Total | 793 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-16

*ANOVA Analysis of Attitudes Using Highest Education Level Attained as Criterion*

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.629 | 3 | .876 | 2.627 | .049 |
| Within Groups | 263.123 | 789 | .333 | | |
| Total | 265.752 | 792 | | | |

The fourth ANOVA performed included tenure track as the independent variable and attitudes about faculty professional development as the dependent variable. There was no violation of the homogeneity of variances assumption as assessed by a non-significant Levene's test ($p = .917$). Thus, Tukey's post hoc tests were conducted in order to compare groupings. The results of the overall ANOVA were not significant, $F(2, 787) = 1.396$, $p = .248$. No Tukey post hoc comparisons revealed any significant differences in attitude score based on course load ($p > .05$). Tables 4-17 and 4-18 depict this information.

Table 4-17

*Descriptive Statistics for Attitudes Toward PD as a Function of Tenure Status*

| Tenure Status | N | M | SD | SE | 95% CI for M | | Min | Max |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| Non-tenured | 556 | 3.53 | .57 | .02 | 3.49 | 3.58 | 1.69 | 5.00 |
| Tenure track | 55 | 3.64 | .61 | .08 | 3.48 | 3.81 | 1.77 | 4.58 |
| Tenured | 177 | 3.49 | .58 | .04 | 3.41 | 3.58 | 1.85 | 5.00 |
| Total | 788 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-18

*ANOVA Analysis of Attitudes Using Tenure Status Criterion*

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .932 | 2 | .466 | 1.396 | .248 |
| Within Groups | 262.007 | 785 | .334 | | |
| Total | 262.939 | 787 | | | |

The fifth ANOVA performed included teaching discipline as the independent variable and attitudes about faculty professional development as the dependent variable. There was no violation of the homogeneity of variances assumption as assessed by a non-significant Levene's test ($p = .236$). Thus, Tukey's post hoc tests were conducted in order to compare groupings. The results of the overall ANOVA were significant, $F(4, 780 = 6.823, p < .001$. Mean attitudes of those whose teaching discipline was education (E) ($M = 3.84, SD = 0.49$) was greater than social sciences/humanities/arts (SSHA) ($M = 3.48, SD = 0.59$), p = .001; natural sciences/mathematics/computer (NSMC) ($M = 3.47, SD = 0.56$), p = .001; and business/accounting (BA) ($M = 3.47, SD = 0.63$), $p = .001$. Additionally, those whose discipline was allied health/workforce training (AHWT) had a greater mean attitude ($M = 3.66, SD = 0.56$) compared to SSHA ($M = 3.48, SD = 0.59$), $p = .009$, and NSMC ($M = 3.47, SD = 0.56$), $p = .011$. Tables 4-19 and 4-20 depict this information.

Table 4-19

*Descriptive Statistics for Attitudes Toward PD as a Function of Teaching Discipline*

| Tenure Status | N | M | SD | SE | 95% *CI* for *M* | | Min | Max |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| SSHA | 330 | 3.48 | .59 | .03 | 3.41 | 3.54 | 1.77 | 4.80 |
| NSMC | 195 | 3.47 | .56 | .04 | 3.39 | 3.55 | 1.69 | 4.62 |
| E | 48 | 3.84 | .49 | .07 | 3.69 | 3.98 | 2.08 | 5.00 |
| BA | 56 | 3.47 | .63 | .08 | 3.31 | 3.64 | 1.77 | 4.69 |
| AHWT | 152 | 3.66 | .56 | .05 | 3.57 | 3.75 | 2.08 | 5.00 |
| Total | 781 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-20

*ANOVA Analysis of Attitudes Using Teaching Discipline Criterion*

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 8.931 | 4 | 2.233 | 6.823 | .000 |
| Within Groups | 253.950 | 776 | .327 | | |
| Total | 262.881 | 780 | | | |

The sixth ANOVA performed included the independent variable, years of teaching at the current school, and the dependent variable, attitudes about faculty professional development. There was no violation of the homogeneity of variances assumption as assessed by a non-significant Levene's test ($p = .562$). Thus, Tukey's post hoc tests were conducted to compare groupings. The results of the overall ANOVA were significant, $F(3, 789) = 5.189$, $p = .001$. Teachers who taught $0 – 5$ years ($M = 3.63$, $SD = 0.55$) had a greater mean attitude than those who taught from $11 – 20$ years ($M = 3.48$,

*SD* = 0.56), *p* = .027, and those who taught more than 20 years (*M* = 3.42, *SD* = 0.61), *p* = .002. Tables 4-21 and 4-22 depict this information.

Table 4-21

*Descriptive Statistics for Attitudes Toward PD as a Function of Years of Teaching*

| Years of Teaching | *N* | *M* | *SD* | *SE* | 95% *CI* for *M* | | Min | Max |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| 0 - 5 yrs | 277 | 3.63 | .55 | .03 | 3.57 | 3.70 | 1.77 | 5.00 |
| 6 - 10 yrs | 182 | 3.53 | .59 | .04 | 3.45 | 3.62 | 1.69 | 4.80 |
| 11 - 20 yrs | 188 | 3.48 | .56 | .04 | 3.40 | 3.56 | 2.08 | 4.77 |
| >20 yrs | 143 | 3.42 | .61 | .05 | 3.32 | 3.52 | 1.85 | 4.69 |
| Total | 790 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-22

*ANOVA Analysis of Attitudes Using Years of Teaching Criterion*

| ANOVA | Sum of Squares | *df* | Mean Square | *F* | *Sig.* |
|---|---|---|---|---|---|
| Between Groups | 5.116 | 3 | 1.705 | 5.189 | .001 |
| Within Groups | 258.307 | 786 | .329 | | |
| Total | 263.423 | 789 | | | |

The seventh ANOVA performed included years teaching at the college level as the independent variable and attitudes about faculty professional development as the dependent variable. There was no violation of the homogeneity of variances assumption as assessed by a non-significant Levene's test (*p* = .174). Thus, Tukey's post hoc tests were conducted in order to compare groupings. The results of the overall ANOVA were significant, $F(3, 790) = 10.279$, $p < .001$. Those teachers that taught more than 20 years at the college level had less mean attitude (*M* = 3.37 , *SD* = 0.61) than those who taught between 0 – 5 years (*M* = 3.69, *SD* = 0.53), $p < .001$, those that taught between 6 – 10

years ($M = 3.53$, $SD = 0.57$), $p = .037$, and those that taught between 11 – 20 years ($M = 3.58$, $SD = 0.55$), $p = .001$. Tables 4-23 and 4-24 depict this information.

Table 4-23

*Descriptive Statistics for Attitudes Toward PD as a Function of Years Teaching at the College Level*

| Years of Teaching | N | M | SD | SE | 95% *CI* for *M* | | Min | Max |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | Lower Bound | Upper Bound | | |
| 0 - 5 yrs | 160 | 3.69 | .53 | .04 | 3.61 | 3.77 | 1.77 | 5.00 |
| 6 - 10 yrs | 172 | 3.53 | .57 | .04 | 3.44 | 3.62 | 1.69 | 4.69 |
| 11 - 20 yrs | 238 | 3.58 | .55 | .04 | 3.51 | 3.65 | 2.08 | 4.80 |
| >20 yrs | 221 | 3.37 | .61 | .04 | 3.29 | 3.46 | 1.77 | 4.69 |
| Total | 791 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-24

*ANOVA Analysis of Attitudes Using Years of Teaching at the College Level Criterion*

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
| --- | --- | --- | --- | --- | --- |
| Between Groups | 10.002 | 3 | 3.334 | 10.279 | .000 |
| Within Groups | 255.261 | 787 | .324 | | |
| Total | 265.263 | 790 | | | |

The eighth ANOVA performed included position at the college level as the independent variable and attitudes about faculty professional development as the dependent variable. There was a violation of the homogeneity of variances assumption as assessed by a significant Levene's test ($p = .036$). Thus, Games-Howell post hoc tests were conducted to compare groupings. The results of the overall ANOVA were significant, $F(6, 791) = 2.430$, $p = .025$. Associate professors had a greater mean attitude

($M$ = 3.62, $SD$ = 0.43) compared to professors ($M$ = 3.45, $SD$ = 0.63), $p$ = .022. Tables 4-

25 and 4-26 depict this information.

Table 4-25

*Descriptive Statistics for Attitudes Toward PD as a Function of Position at the College*

| Position | $N$ | $M$ | $SD$ | $SE$ | 95% *CI* for $M$ | | Min | Max |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | Lower Bound | Upper Bound | | |
| Adjunct | 327 | 3.56 | .56 | .03 | 3.50 | 3.62 | 1.92 | 5.00 |
| Instructor/Lecturer | 63 | 3.47 | .53 | .07 | 3.33 | 3.60 | 2.23 | 4.62 |
| Assistant Professor | 44 | 3.62 | .53 | .08 | 3.46 | 3.79 | 1.69 | 4.54 |
| Associate Professor | 75 | 3.69 | .50 | .06 | 3.57 | 3.80 | 2.31 | 4.69 |
| Professor | 215 | 3.45 | .63 | .04 | 3.37 | 3.54 | 1.77 | 4.77 |
| Department chair | 56 | 3.43 | .65 | .09 | 3.26 | 3.60 | 1.77 | 4.46 |
| Administrator | 12 | 3.65 | .45 | .13 | 3.37 | 3.94 | 3.00 | 4.38 |
| Total | 792 | 3.53 | .58 | .02 | 3.49 | 3.57 | 1.69 | 5.00 |

Table 4-26

*ANOVA Analysis of Attitudes Using Position at College Criterion*

| ANOVA | Sum of Squares | $df$ | Mean Square | $F$ | *Sig.* |
| --- | --- | --- | --- | --- | --- |
| Between Groups | 4.829 | 6 | .805 | 2.430 | .025 |
| Within Groups | 260.031 | 785 | .331 | | |
| Total | 264.860 | 791 | | | |

**Research Question Two**

Multiple regression was conducted to address this second research question and

hypotheses:

**RQ2.** What external (campus culture, administrative support, colleague influences, funding, and time availability) and internal factors (examining perceptions about professional development activities and self-efficacy) predict attitudes about faculty professional development?

**H$_0$:** External and internal factors do not significantly predict attitudes about faculty professional development.

**H$_1$:** External and internal factors do significantly predict attitudes about faculty professional development.

Before conducting the analysis, the assumptions of multiple regression were tested. These assumptions included the independence of observations, linearity, homoscedasticity, multicollinearity, outliers, normality, and outlier detection. Plots of the standardized residuals and predicted values were examined to assess linearity and homoscedasticity. If the plots were not curvilinear, there were no violations of the assumption of linearity (Field, 2013). Additionally, if the plots formed a rectangular pattern, there was no violation of the assumption of homoscedasticity (Field, 2013). Figure 4-2 below depicts this scatter plot and does not reveal any violation of the linearity and homoscedasticity assumptions.

Figure 4-2

*Scatterplot For Violations of Linearity and Homoscedasticity Assumptions*
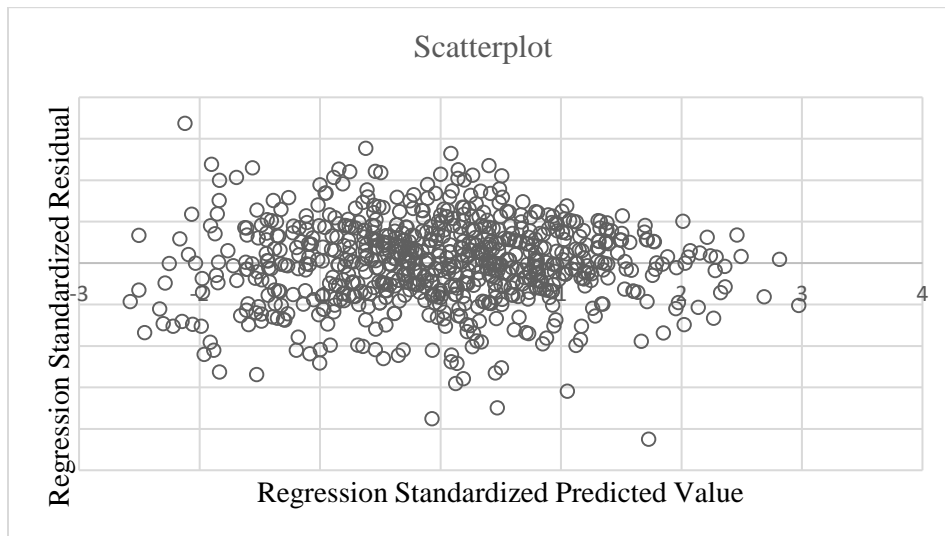


*Note.* Dependent Variable: Attitude Mean

A histogram of residuals testing for normality showed an approximate symmetric

and bell-shaped distribution. Thus, there are no violations of the normality assumption

(Figure 4-2).

Figure 4-3

*Normality Histogram*
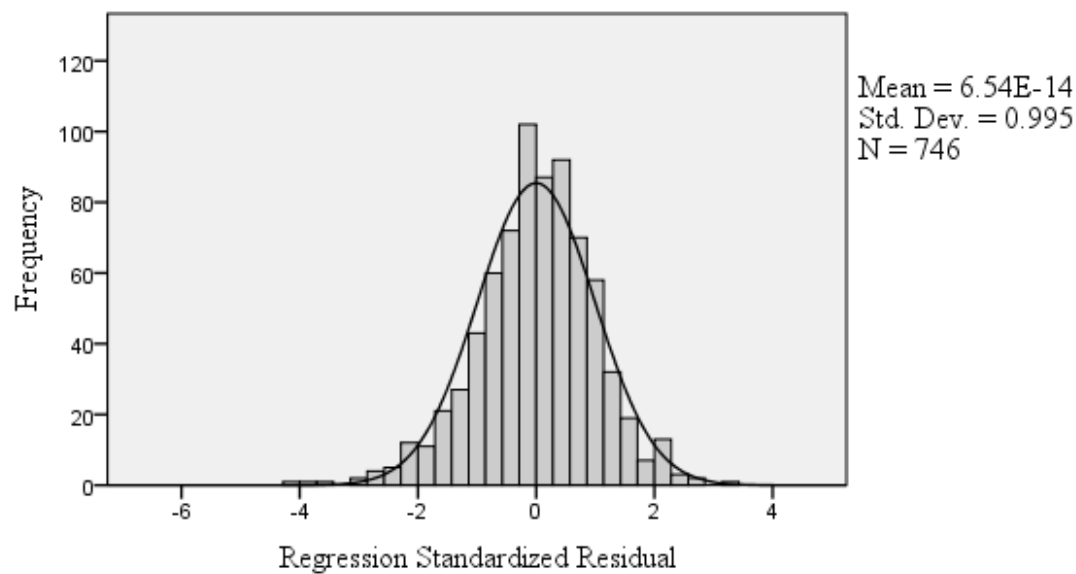


*Note.* A histogram analysis of normality displays no violation of normality. Dependent Variable: Attitude Mean.

Multicollinearity refers to the high correlation between independent variables. The variable inflation factor (VIF) was calculated for each variable to determine if there was a violation of multicollinearity between any two variables. If the VIF scores fell below 10, there was no violation of the assumption of multicollinearity (Field, Discovering statistics using SPSS, 2009). Table 4-27 depicts VIF scores, which all fell below 10; thus, there was no issue with multicollinearity.

Table 4-27

*Variance Inflation Factors (VIF) for Each Variable*

| M | Collinearity Statistics | |
|---|---|---|
| | Tolerance | VIF |
| College Culture | .656 | 1.525 |
| Administrative Support | .567 | 1.765 |
| Colleague Influences | .742 | 1.348 |
| Funding | .820 | 1.220 |
| Time Availability | .947 | 1.056 |
| PD Activities Result | .820 | 1.219 |
| Self-Efficacy | .911 | 1.098 |
| *Dependent Variable: Attitude Mean | | |

Outlier detection was also conducted. The analysis only included cases that had standardized residuals between -3 and +3, leverage values were less than 0.2, and values for Cook's distance less than one, thus ensuring that there were no issues with outliers. Residuals were independent, as assessed by a Durbin-Watson statistic of .710.

The multiple correlation coefficient $R$ is the Pearson correlation coefficient between predicted scores and actual values of the dependent value. The coefficient of determination $R^2$ measures the proportion of variance in the dependent variable that is explained by the independent variable. While the $R^2$ is biased on the sample, the adjusted $R^2$ corrects for positive bias providing a value expected in the population (Laerd Statistics, 2015). Thus, the model explained 34.5% of the variance in predicting mean attitude from external (campus culture, administrative support, colleague influences, funding, and time availability regarding professional development) and internal factors (examining perceptions about professional development activities and self-efficacy), $R_{adj}$ = 0.345. The overall model was significant, $F(7, 745) = 57.047$, $p < .001$. Campus culture

($B = 0.236$, $t = 6.557$, $p < .001$), funding ($B = 0.104$, $t = 3.243$, $p = .001$), activities

resulting from professional development ($B = 0.208$, $t = 10.227$, $p < .001$), and self-

efficacy ($B = 0.076$, $t = 2.162$, $p = .031$) were significant predictors of mean attitude.

Tables 4-28 through 4-30 depict this information.

Table 4-28

*Model Summary[b] External and Internal Factors as Predictor of Attitude*

| R | R Square | Adjusted R Square | SE of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .593a | .351 | .345 | .46492 | .710 |

a. Predictors: (Constant), Campus culture, Administrative Support, Colleague Influences, Funding, Time Availability, PD Activities Result, Self-Efficacy

b. Dependent Variable: Attitude Mean

Table 4-29

*ANOVA[a] External and Internal Factors as Predictor of Attitude*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 86.316 | 7 | 12.331 | 57.047 | .000b |
| | Residual | 159.522 | 738 | .216 | | |
| | Total | 245.838 | 745 | | | |

a. Dependent Variable: Attitude Mean

b. Predictors: (Constant), Campus culture, Administrative Support, Colleague Influences, Funding, Time Availability, PD Activities Result, Self-Efficacy

Table 4-30

*Coefficients[a] of the Dependent Variable*

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | *Sig.* | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | *B* | *SE* | *Beta* | | | Tolerance | VIF |
| (Constant) | 1.154 | .211 | | 5.471 | .000 | | |
| Campus Culture | .236 | .036 | .240 | 6.557 | .000 | .656 | 1.525 |
| Administrative Support | .049 | .031 | .061 | 1.555 | .120 | .567 | 1.765 |
| Colleague Influences | .057 | .034 | .058 | 1.690 | .091 | .742 | 1.348 |
| Funding | .104 | .032 | .106 | 3.243 | .001 | .820 | 1.220 |
| Time Availability | .026 | .037 | .022 | .714 | .476 | .947 | 1.056 |
| PD Activities Result | .208 | .020 | .335 | 10.227 | .000 | .820 | 1.219 |
| Self-Efficacy | .076 | .035 | .067 | 2.162 | .031 | .911 | 1.098 |

a. Dependent Variable: Attitude Mean_DV

## Research Question Three

Multiple regression was conducted in order to address this third research question and hypotheses:

**RQ 3.** What significant associations exist between faculty attitude and participation in professional development activities?

**H0:** There is no significant association between faculty attitude and participation in professional development activities.

**H1:** There is a significant association between faculty attitude and participation in professional development activities.

The model explained 46.2% of the variance in predicting mean attitude from faculty professional development activities behavior, $R_{adj} = 0.462$ The overall model was significant, $F(1, 795) = 683.910$, $p < .001$. Behavior was a significant predictor of attitude (B = 0.479, t = 26.152, p < .001). Tables 4-32 through 4-34 depict this information.

Table 4-31

*Model Summary[b] Behavior as a Predictor of Attitude*

| R | R Square | Adjusted R Square | SE of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .680a | .463 | .462 | .42523 | .490 |

a. Predictors: (Constant), Behavior Result

b. Dependent Variable: Attitude Mean

Table 4-32

*ANOVA[a] Behavior as a Predictor of Attitude*

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 123.665 | 1 | 123.665 | 683.910 | .000[b] |
| Residual | 143.571 | 794 | .181 | | |
| Total | 267.236 | 795 | | | |

a. Dependent Variable: Attitude Mean_DV

b. Predictors: (Constant), Behavior Result

Table 4-33

*Coefficients^a of Behavior as a Predictor of Attitude*

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | *Sig.* | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | *B* | *SE* | *Beta* | | | Tolerance | VIF |
| (Constant) | 1.856 | .066 | | 28.235 | .000 | | |
| Behavior Result | .479 | .018 | .680 | 26.152 | .000 | 1.000 | 1.000 |
| a. Dependent Variable: Attitude Mean | | | | | | | |

**Research Question Four**

Multiple regression was conducted in order to address this fourth research question and hypotheses:

**RQ 4.** What is the correlation between faculty attitudes about faculty training and their perceptions about the impact on teaching?

**Ho:** There is no significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

**H1:** There is a significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

The model explained 20.6% of the variance in predicting mean attitude from student learning and change in activities, Radj = 0.206. The overall model was significant, $F(1, 740) = 97.060$, p < .001. Change in activities (B = 0.148, t = 5.612, p < .001) and student learning (B = 0.157, t = 5.974, p < .001) were significant predictors of mean attitude. Tables 4-35 through 4-37 depict this information.

Table 4-34

*Model Summary[b] Correlation of Attitude and Impact on Teaching*

| R | R Square | Adjusted R Square | *SE* of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .456[a] | .208 | .206 | .48943 | .650 |

a. Predictors: (Constant), Student Learning, Change In Activities

b. Dependent Variable: Attitude Mean

Table 4-35

*ANOVA[a] Correlation of Attitude and Impact on Teaching*

| | Sum of Squares | *df* | Mean Square | *F* | *Sig.* |
|---|---|---|---|---|---|
| Regression | 46.501 | 2 | 23.250 | 97.060 | .000[b] |
| Residual | 176.785 | 738 | .240 | | |
| Total | 223.286 | 740 | | | |

a. Dependent Variable: Attitude Mean_DV

b. Predictors: (Constant), Student Learning, Change in Activities

Table 4-36

*Coefficients[a] of Attitude and Impact on Teaching*

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | *Sig.* | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | *B* | *SE* | *Beta* | | | Tolerance | VIF |
| (Constant) | *2.629* | *.072* | | 36.750 | .000 | | |
| Change In Activities | .148 | .026 | .243 | 5.612 | .000 | .572 | 1.748 |
| Student Learning | .157 | .026 | .259 | 5.974 | .000 | .572 | 1.748 |

a. Dependent Variable: Attitude Mean

**Research Question Five**

Lastly, descriptive statistics were calculated to address research question five:

**RQ 5.** Which professional development topics do faculty consider the most

useful training?

Faculty were asked to rate 12 professional development topics on a scale from 1

to 3, where 1 = not important, 2 = neutral, and 3 = important. Table 4-38 below provides

the mean importance of each item. The most important item was critical thinking skills

(M = 2.87, SD = 0.35). The least important was dealing with cheating, plagiarism, and

other difficult situations (M = 2.42, SD = 0.69).

Table 4-37

*Mean and Standard Deviation of the Importance of Professional Development Topics*

| Professional Development Topic | *N* | *Min* | *Max* | *M* | *SD* |
|---|---|---|---|---|---|
| Critical thinking skills | 793 | 1.00 | 3.00 | 2.87 | .35 |
| Integrating different teaching techniques | 794 | 1.00 | 3.00 | 2.74 | .48 |
| Active learning | 790 | 1.00 | 3.00 | 2.73 | .50 |
| New and innovative teaching (pedagogical) practices | 793 | 1.00 | 3.00 | 2.66 | .54 |
| Discussion skills and techniques | 792 | 1.00 | 3.00 | 2.66 | .54 |
| Using technology in the classroom | 793 | 1.00 | 3.00 | 2.65 | .55 |
| Reflective teaching | 787 | 1.00 | 3.00 | 2.59 | .57 |
| Addressing student academic preparation | 790 | 1.00 | 3.00 | 2.58 | .58 |
| Online learning | 794 | 1.00 | 3.00 | 2.55 | .63 |
| Various learning styles of college students | 790 | 1.00 | 3.00 | 2.53 | .65 |
| Lecturing skills and techniques | 790 | 1.00 | 3.00 | 2.52 | .64 |
| Dealing with cheating, plagiarism, and other difficult situations | 791 | 1.00 | 3.00 | 2.42 | .69 |

## Summary

The results of the data analysis were presented in chapter four. The researcher's main goal was to increase an understanding of Texas community college faculty attitudes and perceptions toward professional development. The quantitative research identified faculty characteristics that influence attitudes and perceptions about pedagogical professional development training, external factors contributing to faculty attitude about professional development programs, and how faculty perceive their professional development experiments influence teaching and student learning.

# Chapter 5 - Discussion and Conclusion

Nearly 50% of all college students pursue an education at community colleges (American Association of Community Colleges, 2016). The demographic characteristics of these students are broad and highly variable, necessitating dedicated, responsive, and well-trained faculty members to guide them in their academic pursuits. Community college faculty can and do make a real difference in the lives of their students. Because of the influence of community college faculty members, faculty development programs have come to the forefront of higher education to address the success and mission of community colleges. However, gaps exist in the literature regarding community college faculty members and their attitudes about faculty development. Thus, the institutional capacity for research/data-informed decisions has been lacking. This study explored the complexity of faculty attitudes and perceptions of professional development to understand the influence of several independent variables better.

The quantitative data for this study were collected from 997 community college teaching members across 14 Texas community colleges. Bandura's social cognitive theory (SCT) guided this study, explaining human behavior as a dynamic and influenced by personal factors, environmental factors, and behavior. A non-experimental, anonymous, Likert-scale questionnaire measured attitudes based on personal and environmental factors and administered through SurveyMonkey. Personal factors included demographic items, such as (a) teaching load, (b) level of teacher training received while in pursuit of an academic degree, (c) academic degree earned, (d) tenure status, (e) teaching discipline, (f) experience, and (g) role at the college. Environmental

factors encompass both external and internal factors. External factors included (a) college culture, (b) administrative support, (c) colleague influence, (d) funding, and (e) time availability. Internal factors included (a) self-efficacy and (b) faculty perceptions toward development activities.

The following research questions guided this study:

**RQ 1:** What faculty characteristics are associated with different attitudes about faculty professional development?

**RQ 2:** What external (campus culture, administrative support, colleague influences, funding, and time availability) and internal factors (examining perceptions about professional development activities and self-efficacy) predict attitudes about faculty professional development?

**RQ 3:** What significant associations exist between faculty attitude and participation in professional development activities?

**RQ 4:** What is the correlation between faculty attitudes about faculty training and their perceptions about the impact on teaching?

**RQ 5:** Which professional development topics do faculty consider the most useful training?

### Summary of Results

In accordance with the research questions, key findings were as follows: First, teachers of all ages, levels of experience, and backgrounds engage in professional development (teacher training). However, differences exist in how faculty members within these various groups experience and value training opportunities. Second, external factors, (a) campus culture, (b) administrative support, and (c) funding, are statistically

significant predictors of faculty member participation, attitudes, and perceptions of faculty professional development. Third, faculty members' self-efficacy plays a significant role in predicting attitudes about professional development. Fourth, faculty beliefs in their teaching capacity exert influences over their motivation and behavior in the classroom.

## Discussion

The following sections are presented as part of the discussion section: generational differences; self-efficacy, campus culture, and administrative support; attitudes, self-efficacy, and the classroom; and ineffective faculty development.

### Generational Differences

According to Ellis and Garcia (2017), members of every generation view the world according to their unique set of generational perspectives. For example, millennials, Generation X'ers, baby boomers, and the silent generation all view the world differently:

> Generations are known to see the world differently from one another— experienced different cultural events, established different values, motivated by different messages, and identified with different heroes—there can be challenges for these for these four generations working together. (Ellis & Garcia, 2017, p. 1)

Nevertheless, similarities also exist; millennials, Generation X'ers, baby boomers, and the silent generation all "share a strong belief in their ability to complete a task" (Heyns & Kerr, 2018, p. 8). Similarly, they share psychological needs for autonomy, relatedness, and inclusion in the workplace (Heyns & Kerr, 2018). Despite similarities, the results of this study suggest that significant differences exist along generational lines.

Specifically, (a) faculty members with fewer years of any teaching experience, (b) faculty members with fewer years teaching at the college level, and (c) faculty members who hold lower ranks in their institution rated faculty development more highly than those with more seniority.

A seeming plethora of subjects, novel topics, and the time commitment required for training, along with the sometimes inefficient and inconvenient nature of such training, often leads to resentment among faculty. Gibbs and Coffey (2004) found that senior faculty members resented professional development: "Change was sometimes frowned upon and taken to imply criticism of more experienced colleagues" (p. 98). Equally important, Kapoor and Solomon (2011) determined that training needs vary among different generations and experience levels. More specifically, "older workers may focus less on training at work than their younger counterparts," seeking to maintain the status quo as opposed to optimizing a burgeoning career (Bertolino et al., 2011, p. 250).

In alignment with the majority of research literature in this area, the conclusion that faculty members within different age groups view faculty training differently is supported by the findings of this study. For example, the most experienced professors endorsed a significantly less favorable attitude towards professional development than all other experienced cohorts. In turn, associate professors endorsed a less favorable attitude than lesser experienced instructors. Researchers promote the value of graduate programs to emphasize teacher training more prominently with both formal (courses) and informal (experiences) (Alkathiri & Olson, 2019; Gaff et al., 2000; Robinson & Hope, 2013).

Nevertheless, the results of this study did not indicate that younger faculty members participated in more teacher training during their time in graduate school.

Research results indicate that experience and generational differences are significant predictors of engagement in professional development activities. Consequently, different opinions regarding faculty development appear due to differences in career length or position in ways that overlap with generational differences. The results of this study are consistent with prior research in that faculty members maintain different professional development objectives at various stages of their lives and in their careers.

**Self-Efficacy, Campus Culture, and Administrative Support**

Social cognitive theory (SCT) asserts that people learn through a progression of observation and reflection of others and self through extrinsic and intrinsic influences and self-behaviors (Bandura, 2002). This reciprocating model reflects continuous feedback in which individuals assess their interactions with others in their environment (e.g., their supervisors) as well as the habits and practices that comprise their environmental culture—a process that ultimately influences their attitude and subsequent actions. According to Bandura (1994), self-efficacy "determine[s] how people feel, think, motivate themselves, and behave" (p. 71). Faculty members who score higher on self-efficacy are more likely to try new classroom techniques and experience higher student achievement (Goddard et al., 2004). Additionally, the results of this study indicated that stronger self-efficacy and a more positive campus culture predict more positive faculty attitudes regarding professional development (a concept more thoroughly defined later in this chapter).

The results further indicate that a positive correlation exists between campus culture and administrative support, suggesting that faculty members who regard administration as supportive have a more positive outlook toward the campus culture. "[G]roup growth and culture formation can be seen as two sides of the same coin, and both are the result of leadership activities and shared experiences" (Schein, 2010, p. 88). Tsai (2011) emphasized the critical role that workplace culture plays in influencing behaviors and attitudes:

> Culture within an organization is very important, playing a large role in whether or not the organization is a happy and healthy place to work [20]. Through communicating and promoting the organizational vision to subordinates, and in getting their acknowledgment of the vision, it is possible to influence their work behavior and attitudes. (p. 8)

This relationship in the context of this study highlights the importance of a well-prepared, supported, and valued faculty in transforming community colleges into more active learning centers where professional development programs and learning are woven into the fibers of the colleges' culture. As discussed in the literature review, culture is built through shared learning and mutual experiences, and culture changes fail when there is a lack of alignment between administrators, staff, and faculty (Schein, 2010). Therefore, fostering the desired culture requires a comprehensive and strategic vision of the goals of professional development programs, especially those associated with the institutional mission. "Without clear and distinct goals, any improvement is likely to be fleeting and limited in the number of students or faculty it impacts" (Murray, 2002b, p. 91).

**Support for Professional Development**

Faculty member support for professional development encompasses several variables. This section discusses this study's research findings for funding support for (a) on-campus and off-campus professional development activities, (b) incentives for formal teacher and discipline-specific training, (c) professional development activities, and (d) compensation. This section also discusses this study's research findings on how departmental support affects professional development.

*Funding Support*

Paramount for a healthy campus culture is the need for administrators not only to encourage faculty members through strategic professional development training (including pedagogy, discipline-specific, leadership, and technology training to improve student outcomes) but also to support them in these activities financially. According to Camblin and Steger (2000), "Support for travel, teacher training, workshops, and such are still important components of faculty development and institutions are, in many ways, obligated to provide routinely these activities and services to faculty" (p. 5). However, according to the results of this study, obligations have not been met; in fact, participants reported that only 46.4% of campuses had provided adequate funding for on-campus professional development activities. Furthermore, participants reported that only 24.8% had provided funding to support off-campus activities (Figure G-1).

In addition to inadequate funding for training, two-thirds of this study's participants stated that they never or rarely received an increase in salary after completing training certifications or graduate courses (Figure G-1). Incentives frequently change attitudes among faculty (Heimlich & Ardoin, 2008, Lowenthal et al., 2013), as

demonstrated in this study. The majority of participants reported their administration

never or only occasionally offered faculty incentives, recognition, or promotions.

Additionally, more than 80% of participants agreed that salary supplements would or do

encourage them to participate in training activities (Figure G-1).

Lacking incentives can prove crippling, yet, budget cuts, as experienced by

community colleges nationwide, prove challenging (Hendrick et al., 2006).

[There] has been a serious financial crunch for many community colleges across

the country. In light of these recent economic difficulties, many schools are faced

with challenging decisions over how best to serve their student population on a

fraction of the money to which they are accustomed. (Chen, 2019, para. 2)

Not overlooked is how funding cuts challenge the ability of institutions to invest

in their faculty (Hendrick et al., 2006). As discussed in the literature review, faculty need

to be experts in teaching (Gordon, 2012; Lancaster et al., 2014), yet, funding cuts result

in fewer dollars for training and fewer full-time faculty (Beach et al., 2016; CCCSE,

2009; Kezar et al., 2015). Ultimately, research indicates a link between student academic

outcomes and faculty compensation (Grant & Keim, 2002; Loeb & Page, 2000; RAND

Education, 2006; Sutton & Bergerson, 2001). How we reward faculty members "largely

determines what faculty do" (Sutton & Bergerson, p. 5). However, according to this

study, few faculty members receive compensation for attending professional development

training.

### *Training Implementation Support*

Effective professional development provides faculty with sufficient time to learn

new strategies, yet, many programs appear ineffective in supporting real, lasting change

(Darling-Hammond et al., 2017). Additionally, researchers have agreed that reflection and reflective practices improve implementation and instructional practice (Corcoran et al., 2003; Darling-Hammond, 2003; Holyoke & Larson, 2009; Rohlwing & Spelman, 2014). Nevertheless, when professional development programs end, support ends; 75% of this study's participants indicated they never, rarely, or only occasionally had time to implement training (Figure G-2). Also, nearly one-half of the participants' indicated their department or division leaders rarely or never set aside time to discuss professional development experiences (Figure G-3).

The desire to learn techniques to improve teaching may conflict with messages faculty members are receiving from their department and division leaders. As a result, department and division leaders, while well-intentioned, may not realize the critical and powerful influence their behavior exerts on faculty members through modeling. According to Bandura (1977), individuals learn behaviors and cognitive strategies by observing and modeling the behaviors of others. If department and division leaders fail to model the behaviors they desire from faculty members, faculty confidence, and outlooks may be negatively affected (Feldman, 1976; Korthagen, 2017). For example, faculty members may (a) express negative attitudes about faculty training, (b) fail to attend professional development opportunities, and (c) fail to implement teaching strategies that promote student success. Professional development as an endeavor requires modeling, consistency, funds, time, and energy; however, with no guarantees of success, and without departmental support, faculty members may not be motivated to overcome such barriers. Consequently, many recognize the need for training, yet they may not be motivated to pursue it.

**Attitude, Self-Efficacy, and the Classroom**

According to this study, a significant correlation exists between faculty attitudes about pedagogical training and the impact on teaching. A large portion of this study's population perceived that professional development did not improve their teaching. However, many reported employing teaching techniques learned through training programs, for which they saw improved student learning. This contradiction may reflect (a) frustrations with extra time commitments associated with professional development (e.g., attendance and implementation), (b) the absence of administrative support (both perceived and real), and (c) the absence of financial support (both perceived and real). Because of the study's participants' high self-efficacy scores, these instructors may believe more in themselves as the producer of results, and less likely to view themselves as the product of their training (Pajares, 2002).

The degree of self-efficacy among individual faculty members plays a role in decisions about the types of methodologies they use in the classroom (Mark et al., 2011). Self-efficacy, dynamic in nature, changes (a) dependent upon task difficulty, (b) environmental variabilities, and (c) the success of the endeavor. When faculty members encounter obstacles, some may give up while others persevere as they strive for success (Bandura, 1997). Regardless of whether faculty extend credit to training or themselves, this study revealed there was a significant correlation between change in classroom activities and improvement on student learning as predictors of faculty attitudes.

**Ineffective Faculty Development**

On many campuses, faculty engagement in professional development is neither an expectation or obligation (Haras, 2018). Furthermore, many professional development

programs "focus on delivering information rather than creating conditions for learning that professionals would find relevant or useful" (Haras, 2018, para. 3). Thus, some faculty attend faculty development to strengthen their skills, while others only participate if required (Lowenthal et al., 2013). For instance, many of the participants in this study's population said they would not attend professional development if they were not required. Many of those who have participated expressed a negative attitude. This is most likely a reflection of the inability of programs to engage members based on the findings that training sessions may (a) be offered sporadically, (b) be offered at inconvenient times, (c) cover discorded topics, or (d) even be irrelevant to faculty members.

Nearly all (87%) of the study's participants indicated they had attended workshops. Even though workshops are the most prevalent form of faculty training, "the sage on the stage" model has not worked any better for faculty members than for students. For example, an associate professor at Washington State University made a "naughty list" of professional development workshops. The list included "a three-hour lecture on active learning, an hour-long lecture on how ineffective lecturing is, and a workshop with the opening remarks, 'Everything I am about to share is in X document, so you can just read that'" (Nicolas, 2019, p. 1). Contrarily, The Consortium of Policy Research in Education found that when training focused on inquiry-based instruction, more strategies made it into classroom practice (Corcoran et al., 2003). Perhaps most negative attitudes reflect poor programming, poor presentation skills, or the lack of faculty motivation of the subject matter being presented.

Halx and Reybold (2006) found that although participants in their study were willing to promote critical thinking in the classroom, none had received training to do so.

Similarly, participants in this study identified critical thinking skills as the most important topic of interest for professional development. Participants in this study also highly ranked active learning, discussion skills, and techniques, as well as the use of technology ([Figure G-4](#)).

### Recommendations for Practice

Based on the results of this study, several practice recommendations are made. First and foremost, effective professional development requires top-level and mid-level leadership support. The second recommendation for practice is to address the diverse faculty population. The third recommendation for practice is to present training using best practices, reflection, and a comprehensive approach. Finally, the fourth recommendation for practice is to focus on systems of education that reflect high-achieving models when creating a learning culture reflective of the institution's mission and strategic plan.

**Leadership Support**

The need for administrative support cannot be overstated. First and foremost, providing administrative support legitimizes professional development, and as a result, departmental leaders are more likely to endorse and commit to training efforts and implementation. Likewise, providing administrative support leads to institutional and financial support (Jacob et al., 2015). Furthermore, supporting relationships are essential, as research suggests that developers must have "leadership style characteristics that are consultative and collaborative" (Jacob et al. 2015, p. 24). However, "[n]o faculty development director or coordinator, or even a faculty development resource office, can make up for the lack of a clear, constant, and resource-committed academic leader who

visibly promotes and rewards effectively institutional mission-inspired faculty development" (Smorynski, 2015, para. 3). Organizational commitment ensures that professional development is central to the college's mission and strategic plan and is a fully functioning program essential for sustainable change.

Division and department leadership are also important components of the campus and essential for creating, developing, and sustaining a successful learning culture. However, "it is astonishing that there is little or no training for this work" (Ellis & Garcia, 2017, p. 222). This study's participants indicated nearly one-half of the division or department leaders rarely or never set aside time to discuss professional development experiences. This finding, along with Ellis and Garcia's observation, may be due to a lack of professional development for newly appointed department chairs and division deans (Ellis & Garcia, 2017). In response, it is recommended that mid-level administrators receive direction and training on how to motivate and support faculty.

Furthermore, administrators may benefit from "acknowledge[ing] there are human limits to the number of change components that people or institutions can effectively implement" (Rohlwing & Spelman, 2014, p. 238). The campus is interconnected, and when changes occur, they impact other areas of the college. As such, policies and practices should be "revised so that they, at the very least, do not undermine it [new initiatives]" (Gaff et al., 2000, p. 53).

**Embracing Differences**

Community colleges are complex environments, and fitness, a term used by evolutionary biologists, depends on the adaptability to not only survive, but thrive in that environment. Diversity is the cornerstone of success, providing different strengths and

skills to be shared with community members. Thus, the campus culture environment can serve as a "mechanism for bringing together individuals with many shared traits" (Gill, 2013, p. 72). Therefore, training strategies should evolve to incorporate diverse objectives, learning strategies, and shared culture for all generations and experience levels.

Strategies for bridging differences include assuring that learners know they are valued and connected by not only recognizing but embracing different learning styles (Holyoke & Larson, 2009). Consequently, tailoring development programs to experience and skill levels is beneficial. For example, Baby Boomers respect authority and the chain of command. When a younger instructor is teaching a class of Baby Boomers, they need to "focus on the relevance of the information and create an environment in which it is "safe" to ask questions and challenge the teacher" (Mohr et al., 2011, p. 199). Millennials do not require the same learning structure of Baby Boomers and Gen Xers, but learn best through collaboration and the use of technology. Thus, senior faculty may struggle to include hands-on experiences and technology into the learning program (Holyoke & Larson, 2009; Mohr et al., 2011).

Differing attitudes about professional development may be because seasoned veterans feel there are no new ways to improve learning and teaching methods, or already know the skill being taught during training (Mohr et al., 2011; Murray, 2002a). Then again, new teachers simultaneously may feel overwhelmed due to a plethora of unfamiliar skills and techniques (Eddy, 2010). Regardless of experience levels and learning styles, everyone benefits from an understanding and respectful environment that

embraces different work styles and challenges critical to an engaged workforce that maximizes collaboration between all generations and levels of experience.

Faculty bring with them a wide range of experiences that are essential considerations in the topics and design of professional development programs. Including a critical mass of faculty on the planning team can bring valuable perspectives to the planning discussion. An inclusive team, while cognizant of faculty interests, also will help address alignment with the direction of the strategic institutional mission.

**Using Best Practices**

The third recommendation for practice is to present training (professional development) using best practices, reflection, and a comprehensive approach. Professional development programs benefit by being presented in formats that reflect pedagogical best practices—fewer lecture sessions and more interactive presentations. Participants in this study were more likely to attend workshops than any other form of professional development, yet, gone are the days of the "one-day, "drive by" workshop model" (Darling-Hammond et al., 2017, p. 4). However, workshops are beneficial when they provide learner-centered pedagogy in the form of collaboration, feedback, and reflection (Darling-Hammond et al., 2017). Faculty members must participate as learners using active learning strategies (Steinert, 2012).

In 2008, teachers "had fewer opportunities to engage in sustained professional learning opportunities" (Wei et al., 2010, p. v), a trend supported by the results of this study, and one that cannot continue. Faculty members need a comprehensive and detailed vision of the goals of their professional development program. A comprehensive approach combines content and pedagogy with steadfast support and reflection as

powerful strategies for promoting teacher and student learning. Part of this comprehensive approach involves reinforcement (Guskey, 2003). Reinforcing practices can be accomplished through intentionally available implementation support, perhaps in the form of a follow-up meeting or program, checking in with peers or mentors or content experts. Employing debriefing to follow training sessions provides immediate feedback from all attendees. Further feedback may include instructional leaders asking faculty reflection-based questions about individual classroom observations. If intentional support is not available following training, then, based on the findings in the discussion, faculty members' time may be better spent designing their own collaborative learning experience (Darling-Hammond et al., 2017).

**Focus on Culture**

The fourth recommendation for practice is to focus on modeling a learning culture reflective of high-achieving systems of education. Countries with high-achieving education systems feature learning cultures that provide (a) time necessary for intensive teacher training, practice, and implementation; (b) competitive salaries and other incentives; (c) continuous, job-embedded professional development; (d) teacher involvement in decision making; and (e) subsidies that cover the cost of development programs (Darling-Hammond et al., 2010; Sahlberg, 2015). "A learning culture must therefore value reflection and experimentation and must give its members the time and resources to do it" (Schein & Schein, 2016, p. 344). The literature research supports many of these characteristics, yet, results of this study, unfortunately, did not reflect these features as occurring. For example, participants in this study often indicated that the campus culture and administrative support for teacher training, practice, and

implementation was not continuous, and faculty members were uninvolved in decisions about professional development.

## Recommendations for Future Research

Based on the results of this study, several recommendations for future research can be made. These recommendations include continually and consistently (a) collecting and analyzing data regarding faculty attitudes and faculty experiences, (b) evaluating how faculty development training affects student learning, and (c) expanding research to systems of education that reflect high-achieving models and align with the college's mission and strategic direction.

### Collect and Analyze Data About Faculty Attitudes and Experiences

While this research study has added to the cache of data regarding faculty attitudes and perceptions, it is recommended that more empirical research occurs between the relationships among professional development, faculty attitudes and beliefs, and teaching practices. As Desimone (2009) described, increased faculty knowledge changes attitudes and perceptions of professional development, which, in turn, causes a change in pedagogy practices.

At the core of social cognitive theory are self-efficacy beliefs that (a) provide the impetus for motivation and personal accomplishment, and (b) are critical determinants of how knowledge and skill are acquired and implemented (Pajares, 2002). As such, self-efficacy is dynamic and responsive to observations, experiences, and perceived consequences of performing behaviors (Bandura, 1997). Likewise, faculty members (a) observe their colleagues and peers; (b) attend professional development; and (c) respond to instruction, guidance, and feedback. Therefore, longitudinal studies should be

considered for research to determine how faculty members' self-efficacy beliefs about their ability to teach change over time.

This study collected information on various disciplines, indicating how attitudes vary, yet a more thorough investigation is warranted. Administrators may benefit from understanding how attitudes and perceptions change between different silos, disciplines, or fields of study (Lloyd, 2016; Schein, 2010). In essence, in-depth studies may provide administrators and faculty development developers improved acumen to create more inclusive campus cultures. Additionally, this information may provide leaders with more insightful information to develop more meaningful faculty development experiences.

Additionally, the scope of this study did not allow teasing out the different attitudes of full-time versus part-time faculty. Considering the majority of community college faculty are part-time, integrating these faculty members into the campus culture is imperative (Roueche et al., 1996). Research needs to address part-time faculty experiences with integration, and pedagogical training through professional development, and their ensuing attitudes and perceptions.

**Understand and Employ Models of High-Achieving Education Systems**

Knowing what successful education systems are doing creates opportunities to influence campus culture through the strategic implementation of policies and alignment with best practices. It is recommended that further research delve into the nuts and bolts of these successful systems to provide campus leaders with relevant information for improvement.

Education policy makers can benefit from international comparisons in the same way that business leaders learn to steer their companies towards success: by

taking inspiration from others, and then adapting lessons learned to their own situation. For policy makers in education, this can be achieved through various forms of benchmarking: analysing observed differences in the quality, equity and efficiency of education between one country and another, and considering how they are related to certain features of those countries' education systems. (Organisation for Economic Cooperation and Development, 2018, p. 62)

**Conclusion**

In today's rapidly changing and unpredictable environment, higher education organizations have experienced the need to adapt technology-assisted learning quite expeditiously. All college constituents, including students, faculty, staff, and administrators, need extraordinary resilience and flexibility, and a positive attitude. Maintaining a positive attitude in the face of adversity means (a) embracing the challenges faced, (b) being open to diverse solutions, (c) learning from mistakes, and (d) learning from each other.

Among the most influential people on the college campus, faculty members directly influence students and student success. There are tremendous benefits of developing, using, and respecting a well-trained faculty body. "Effective professional learning—which enables teachers to work regularly together to improve their practice and implement strategies to meet the needs of their students — must be a key ingredient in any effort to bolster student achievement" (Wei et al., 2010, p. ii). However, the majority of faculty do not receive adequate teacher training before entering the classroom. There exists a mismatch between faculty preparation and the daily expectations of being a community college faculty member. As such, faculty and

administrators may be at odds with each other; however, the results of this study may provide guidelines to alleviate differences.

As higher education administrators continue to recalibrate professional development, the skills and knowledge that faculty members employ and effective pedagogical approaches for the student body of each unique community college need to be evaluated. Indeed, administrators will have a different priority list regarding where to allocate their time and funds based on immediate and long-term goals, data-informed knowledge, and experience. Administrators' and developers' goals likely include faculty attending professional development who are ready to learn, and for which leaders hear, "I look forward to attending professional development sessions." Unfortunately, faculty attitudes and perceptions about faculty development may impede programs and the campus learning culture.

The purpose of this study was to explore the faculty members' attitudes and perceptions of faculty development—specifically, by looking at factors that, when addressed, provide incentives for further improvement. This study, along with the literature reviewed, illuminates that attitude matters. It is conceivable that community college faculty members face competing factors from environmental influences, and their behaviors are formed through their perceptions of experiences and interactions. These influences affect not only current behavior but also subsequent behaviors, which, in part, are influenced by attitude.

The advancement of faculty learning is apt to improve as attitudes improve. Creating conditions for a campus culture of effective professional development involves fostering a shared vision about what exemplary instruction entails, adopting standards

and policies for professional development that align with the strategic direction of the institution, making data-informed decisions, and providing adequate resources. These conditions, and well-designed and implemented training, promise to impact campus culture positively. Fostering a culture of growth and development of faculty will contribute to an education system focused on highly-critical student success.

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# Appendix A - Internal Review Board Documentation

**KANSAS STATE** | University Research Compliance Office
U N I V E R S I T Y

TO:    Dr. Margaretta Mathis                            Proposal Number: 9782
           Adult Learning and Leadership
           Bluemont Hall

FROM: Rick Scheidt, Chair
           Committee on Research Involving Human Subjects

DATE: 06/05/2019

RE:     Proposal Entitled, "Texas Community College Faculty Attitudes of and Perceptions About Professional Development"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

# Appendix B - Texas Community College Service Areas

**Community College District Service Areas**
As Amended by the 84th Legislature, Regular Session, 2015

**Community College Districts***

162 - Alamo Colleges
163 - Alvin Community College
164 - Amarillo College
165 - Angelina College
166 - Austin Community College District
167 - Coastal Bend College
168 - Blinn College
169 - Frank Phillips College
170 - Brazosport College
171 - Central Texas College
172 - Cisco College
173 - Clarendon College
174 - College of the Mainland
175 - Collin College
176 - Dallas County Community College District
177 - Del Mar College
178 - El Paso Community College
179 - Galveston College
180 - Grayson College
181 - Hill College
182 - Houston Community College
183 - Howard College
184 - Kilgore College
185 - Laredo Community College
186 - Lee College
187 - McLennan Community College
188 - Midland College
189 - Navarro College
190 - North Central Texas College
191 - Lone Star College System
192 - Northeast Texas Community College
193 - Odessa College
194 - Panola College
195 - Paris Junior College
196 - Ranger College
197 - San Jacinto College
198 - South Plains College
199 - South Texas College
200 - Southwest Texas Junior College
201 - Tarrant County College
202 - Temple College
203 - Texarkana College
204 - Texas Southmost College
205 - Trinity Valley Community College
206 - Tyler Junior College
207 - Vernon College
208 - Victoria College
209 - Weatherford College
210 - Western Texas College
211 - Wharton County Junior College

*Number corresponds with the district's section in the Texas Education Code.

Boundaries other than for legislative, congressional, or State Board of Education districts are for informational purposes only and may be approximate.

Sources: Texas Education Code, County Appraisal Districts, Municipalities

# Appendix C - Research Questions and Hypotheses

**RQ 1.** What faculty characteristics are associated with different attitudes about faculty professional development?

    **H$_O$:** There is no significant difference in mean faculty attitudes about faculty professional development by faculty characteristics.

    **H$_1$:** There are significant differences in mean faculty attitudes about faculty professional development by faculty characteristics.

**RQ 2.** What external (campus culture, administrative support, colleague influences, funding, and time availability) and internal factors (examining perceptions about professional development activities and self-efficacy) predict attitudes about faculty professional development?

    **H$_O$:** External and internal factors do not significantly predict attitudes about faculty professional development.

    **H$_1$:** External and internal factors do significantly predict attitudes about faculty professional development.

**RQ 3.** What significant associations exist between faculty attitude and participation in professional development activities?

    **H$_O$:** There is no significant association between faculty attitude and participation in professional development activities.

    **H$_1$:** There is a significant association between faculty attitude and participation in professional development activities.

**RQ 4.** What is the correlation between faculty attitudes about faculty training and their perceptions about the impact on teaching?

    **H$_O$:** There is no significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

    **H$_1$:** There is no significant correlation between faculty attitudes about pedagogical training and the impact on teaching.

**RQ 5.** Which professional development topics do faculty consider the most useful training?

# Appendix D - Faculty Survey

Welcome Faculty Colleague

*Dear (School Name) Faculty Member,*

*I invite you to participate in the following survey. I am a doctoral student under the direction of Dr. Margaretta Mathis and Dr. Terry Calaway in the Kansas State University, Adult Learning and Leadership Program. I am conducting a research study to evaluate Texas community college faculty attitudes of and perceptions about teacher training professional development.*

*The purpose of this survey is to find out about your experiences with professional development regarding faculty training. The information you provide will help identify faculty attitudes and perceptions about faculty development. The goal of my dissertation is to provide relevant information for administrators and professional development developers as they consider how to develop, fund, and promote faculty development activities.*

*Your participation is voluntary, anonymous, and appreciated. Your responses will not be shared; your responses will not be identified with you. Individual responses will not be reported in the dissertation, but statistical analysis will be applied to combined scores. Furthermore, pseudonyms will be used for your institution, and data will only be used for this research study.*

*Be assured that your responses will remain strictly confidential and you may withdraw at any time from the survey without penalty or loss of benefit.*

*Please take 10 minutes of your valuable time to complete the survey. I appreciate your help because, without it, research on faculty could not be conducted. Your input helps guide higher education institutions like yours in strengthening professional development practices.*

*By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw from participation at any time without penalty.*

*With thanks and appreciation for your participation,*

*Sharon Hyak*
Kansas State University, Doctoral Candidate
Victoria College, Associate Professor of Biology

Questions and comments about this survey should be directed to:
Sharon Hyak, sharon.hyak@gmail.com or,
KSU Dissertation Chairs, Terry Calaway, terry74@ksu.edu; Margaretta Mathis, mbmathis1@ksu.edu or; KSU University Research Compliance Office comply@k-state.edu

IRB approved June 5, 2019.

## Faculty Development Experiences

For this survey, the term professional or faculty development refers to any event designed to improve your teaching skills. Professional development faculty training includes attending seminars, workshops, and conferences, participating in a semester-long training program, working with a teaching consultant, and peer/colleague observations. Professional development also includes attending discussion groups, brown bag lunches, or other meetings to discuss teaching, participating in a mentoring program, consulting books, or research articles about teaching, consulting newsletters or web sites related to education and viewing YouTube or other social media related to teaching.

1.  Have you participated in faculty development activities in the past two years?

    ○ Yes
    ○ No

2.  If no, please describe why you have not elected to take part in faculty development activities. Select all that apply.

    ☐ I was not aware of any programs.

    ☐ I did not have the available time.

    ☐ I did not find any topics interesting.

    ☐ My department does not value teaching development.

    ☐ I was not financially able to attend.

    ☐ Previously attended professional development was a negative experience.

3.  If yes, what types of faculty development have you attended? Select all that apply.

| | Did not attend | Attended |
|---|---|---|
| Seminars | ○ | ○ |
| Workshops | ○ | ○ |
| Conferences | ○ | ○ |
| Semester-long training | ○ | ○ |
| Worked with a teaching consultant. | ○ | ○ |
| Peer/colleague observation. | ○ | ○ |
| Attended meeting(s) (e.g., discussion groups, brown bag lunches) to discuss teaching. | ○ | ○ |
| Participated in a mentoring program (as a mentor or mentee). | ○ | ○ |
| Consulted book(s) or research article(s) about teaching. | ○ | ○ |
| Consulted newsletter(s) or web site(s) related to teaching. | ○ | ○ |
| Consulted YouTube or other social media related to teaching. | ○ | ○ |

## Faculty Attitudes and Perceptions

4. *Please share your opinion on professional (faculty) development.*

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| Faculty development is necessary for community college faculty. | ○ | ○ | ○ | ○ | ○ |
| Faculty development events are worth the time they take. | ○ | ○ | ○ | ○ | ○ |
| If I did not have to attend faculty development, I would not. | ○ | ○ | ○ | ○ | ○ |
| Faculty development programs have been useful in improving my teaching. | ○ | ○ | ○ | ○ | ○ |
| Teacher training programs are typically a good investment. | ○ | ○ | ○ | ○ | ○ |

5. *Please share how the most recent professional (faculty) development programs and activities you attended have influenced your approach to students.*

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| Faculty development programs have been useful in addressing issues students face in the classroom. | ○ | ○ | ○ | ○ | ○ |
| Faculty development programs have been useful in helping me prepare students for the rigors of college. | ○ | ○ | ○ | ○ | ○ |
| Faculty development programs have been useful in helping me think of students as adult learners. | ○ | ○ | ○ | ○ | ○ |
| Faculty development initiatives have not had much impact on my teaching. | ○ | ○ | ○ | ○ | ○ |

6. *Please share your perceptions of how professional (faculty) development has affected your teaching.*

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| Since participating in professional development, I have become more aware of my teaching. | ○ | ○ | ○ | ○ | ○ |
| Since participating in professional development, I have more confidence in my teaching. | ○ | ○ | ○ | ○ | ○ |
| Since participating in professional development, I have taken more risks with my teaching. | ○ | ○ | ○ | ○ | ○ |
| Since participating in professional development, I have been more likely to talk about teaching with others. | ○ | ○ | ○ | ○ | ○ |

7. *Please share your thoughts about self-efficacy.*

| | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| I can successfully teach all relevant subject content to my students. | ○ | ○ | ○ | ○ | ○ |
| I am confident in my ability to actively engage students in the classroom. | ○ | ○ | ○ | ○ | ○ |
| I am confident in my ability to utilize technology to enhance my teaching. | ○ | ○ | ○ | ○ | ○ |
| I am confident in my ability to create a nurturing and pleasant environment. | ○ | ○ | ○ | ○ | ○ |
| I am confident in my ability to utilize a variety of assessment methods to evaluate students' learning results. | ○ | ○ | ○ | ○ | ○ |

Campus Culture

8. *Please share how you perceive your college's campus culture.*

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree |
|---|---|---|---|---|---|
| On our campus, when we adopt new learning initiatives, we stay with them long enough to see if changes occur in student learning. | ○ | ○ | ○ | ○ | ○ |
| The college culture at our campus empowers and encourages me to learn new things. | ○ | ○ | ○ | ○ | ○ |
| On our campus, we share the belief that faculty can learn to improve student learning. | ○ | ○ | ○ | ○ | ○ |
| On our campus, it is not unusual to find faculty across disciplines collaborating to improve student learning. | ○ | ○ | ○ | ○ | ○ |
| The working environment on our campus is caustic. | ○ | ○ | ○ | ○ | ○ |

9. *Please share your experiences with time available for professional (faculty) development.*

| | Never | Rarely | Occasionally | Frequently | Very frequently |
|---|---|---|---|---|---|
| Campus faculty development activities are scheduled at convenient times. | ○ | ○ | ○ | ○ | ○ |
| My campus allows time to attend faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| My workload does not allow time for me to attend faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| My workload does not allow time necessary for me to implement techniques I learned in faculty development. | ○ | ○ | ○ | ○ | ○ |
| Family responsibilities make it difficult for me to participate in faculty development activities beyond the workday. | ○ | ○ | ○ | ○ | ○ |

10. *Please share your perceptions about funds availability.*

| | Never | Rarely | Occasionally | Frequently | Very frequently |
|---|---|---|---|---|---|
| My campus provides adequate funding for on-campus faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| My campus provides adequate funding for me to attend off-campus faculty development activities (e.g. seminars, conferences). | ○ | ○ | ○ | ○ | ○ |
| Expenses for travel prevent me from participating in faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| Salary supplements would/ do encourage me to participate in faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| I receive an increase in my salary when I complete faculty training (e.g. certifications, graduate courses). | ○ | ○ | ○ | ○ | ○ |

11. *Please share your perceptions about administrative support.*

| | Never true | Usually not true | Occasionally true | Usually true | Always true |
|---|---|---|---|---|---|
| My campus administrators support faculty learning as essential for achieving our school's mission. | ○ | ○ | ○ | ○ | ○ |
| My campus administrators support teacher learning through a combination of strategies (e.g. workshops, peer coaching, seminars, conferences). | ○ | ○ | ○ | ○ | ○ |
| My division/department leaders support opportunities to practice new skills learned during faculty development. | ○ | ○ | ○ | ○ | ○ |
| My division/department leaders set aside time to discuss what we learned from mandatory faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| My campus uses several methods to evaluate the effectiveness of our faculty development on student learning (e.g., classroom observations, faculty surveys, conversations with chairs, and colleagues). | ○ | ○ | ○ | ○ | ○ |

12. *What is your overall opinion of administrative support at your college campus?*

| | Never true | Usually not true | Occasionally true | Usually true | Always true |
|---|---|---|---|---|---|
| My administration respects my expertise in instruction and assessment to meet the learning needs of our diverse students. | ○ | ○ | ○ | ○ | ○ |
| My administration promotes the importance of teaching quality by offering faculty incentives and reward systems (recognition, raises, tenure, promotion). | ○ | ○ | ○ | ○ | ○ |
| Administration values faculty development as long as it does not cost them time or money. | ○ | ○ | ○ | ○ | ○ |

13. *The purpose of these items is to determine how you interact with colleagues in regards to teaching.*

| | Never true | Usually not true | Occasionally true | Usually true | Always true |
|---|---|---|---|---|---|
| My colleagues and I effectively work together to improve teaching and learning. | ○ | ○ | ○ | ○ | ○ |
| Teaching and learning goals depend on our ability to work well together. | ○ | ○ | ○ | ○ | ○ |
| New faculty members have opportunities to work with more experienced faculty (e.g. coaching, mentoring). | ○ | ○ | ○ | ○ | ○ |
| There is a culture among my colleagues that encourages faculty development. | ○ | ○ | ○ | ○ | ○ |
| My colleagues have a negative attitude regarding faculty development. | ○ | ○ | ○ | ○ | ○ |

| Participation |
| --- |

14. Please rate how the following behaviors are most likely due to your participation in professional (faculty) development activities?

|  | Never true | Usually not true | Occasionally true | Usually true | Always true |
| --- | --- | --- | --- | --- | --- |
| I plan to attend other pedagogical/ teacher training professional development. | ○ | ○ | ○ | ○ | ○ |
| I am motivated to participate in faculty development training. | ○ | ○ | ○ | ○ | ○ |
| I have tried new technology, a new teaching strategy, technique or approach I learned in faculty development. | ○ | ○ | ○ | ○ | ○ |
| I have been working with my mentor/ coach to effectively implement teaching practices learned during faculty development activities. | ○ | ○ | ○ | ○ | ○ |
| I use tools from faculty development to be more responsive to student needs in order to address student success. | ○ | ○ | ○ | ○ | ○ |

15. Please indicate how your use of the listed activities changed as a result of seminars/workshops/conferences that you attended in the last two years.

|  | None at all | A little | A moderate amount | A lot | A great deal |
| --- | --- | --- | --- | --- | --- |
| Writing formal instructional objectives. | ○ | ○ | ○ | ○ | ○ |
| Using active learning in class. | ○ | ○ | ○ | ○ | ○ |
| Adopting the flipped classroom method. | ○ | ○ | ○ | ○ | ○ |
| Using problem-based learning. | ○ | ○ | ○ | ○ | ○ |
| Using project-based learning. | ○ | ○ | ○ | ○ | ○ |
| Using cooperative (team-based) learning for assignments. | ○ | ○ | ○ | ○ | ○ |
| Using real-life industry/ field of study projects. | ○ | ○ | ○ | ○ | ○ |
| Immersion in professional environments or field trips. | ○ | ○ | ○ | ○ | ○ |
| Participating in a faculty-student mentoring program. | ○ | ○ | ○ | ○ | ○ |

16. For the <u>above items that you started to use or increased use</u>; on average, how did it impact student learning?

| | Not at all helpful | Not very helpful | Somewhat helpful | Very helpful | Extremely helpful | Not applicable |
|---|---|---|---|---|---|---|
| Writing formal instructional objectives. | ○ | ○ | ○ | ○ | ○ | ○ |
| Using active learning in class. | ○ | ○ | ○ | ○ | ○ | ○ |
| Adopting the flipped classroom method. | ○ | ○ | ○ | ○ | ○ | ○ |
| Using problem-based learning. | ○ | ○ | ○ | ○ | ○ | ○ |
| Using project-based learning. | ○ | ○ | ○ | ○ | ○ | ○ |
| Using cooperative (team-based) learning for assignments. | ○ | ○ | ○ | ○ | ○ | ○ |
| Using real-life industry/ fields of study projects. | ○ | ○ | ○ | ○ | ○ | ○ |
| Immersion in professional environments or field trips. | ○ | ○ | ○ | ○ | ○ | ○ |
| Participating in a faculty-student mentoring program. | ○ | ○ | ○ | ○ | ○ | ○ |

17. I would like to know what professional (faculty) development training you would find the most useful.

| | Not important | Neutral | Important |
|---|---|---|---|
| Addressing student academic preparation | ○ | ○ | ○ |
| Using technology in the classroom | ○ | ○ | ○ |
| Online learning | ○ | ○ | ○ |
| Various learning styles of college students | ○ | ○ | ○ |
| New and innovative teaching (pedagogical) practices | ○ | ○ | ○ |
| Integrating different teaching techniques | ○ | ○ | ○ |
| Lecturing skills and techniques | ○ | ○ | ○ |
| Discussion skills and techniques | ○ | ○ | ○ |
| Dealing with cheating, plagiarism, and other difficult situations | ○ | ○ | ○ |
| Active learning | ○ | ○ | ○ |
| Reflective teaching | ○ | ○ | ○ |
| Critical thinking skills | ○ | ○ | ○ |

## Your Average Work Week

*Time. I am interested in knowing how you spend your average work week. Please select the most accurate time you spend on the following tasks each week.*

18. On average, how many hours per week do you

| | 0-1 hour | 1.5- 3 hours | 3.5- 5 hours | 5.5- 7 hours | 7.5-9 hours | > 9.5 hours |
|---|---|---|---|---|---|---|
| dedicate to class preparation? | ○ | ○ | ○ | ○ | ○ | ○ |
| spend in the classroom, laboratory, and clinic (total time)? | ○ | ○ | ○ | ○ | ○ | ○ |
| dedicate to office hours? | ○ | ○ | ○ | ○ | ○ | ○ |
| exclusive of office hours, do you spend outside of class with undergraduate students for advising, study sessions, or other individual or group help? | ○ | ○ | ○ | ○ | ○ | ○ |
| spend in service to the college with committee work, division meetings, etc.? | ○ | ○ | ○ | ○ | ○ | ○ |

19. What is the average hours spent dedicated to college work each week?

○ 0-10 hours
○ 11-20 hours
○ 21-30 hours
○ 31-40 hours
○ 41-50 hours
○ > 50 hours

## Faculty Characteristics

*Please select the description that best describes you.*

20. Teaching load. How many courses do you typically teach each semester?

○ 0 courses
○ 1-3 courses
○ 4-6 courses
○ 7 or more courses

21. How much teaching training did you receive while a student pursuing your academic degree?

| no teacher | some teacher | extensive teacher |
|---|---|---|

22. What is the highest academic degree you have earned?

○ Associate's degree
○ Bachelor's degree
○ Master's degree/ Master's degree + 18 graduate hours
○ Doctoral degree

23. What is your tenure status?

○ Non-tenured
○ Tenure track
○ Tenured

24. What is your primary teaching discipline?

○ Social sciences/ Humanities/Arts
○ Natural sciences/ Mathematics/ Computer sciences
○ Education
○ Business and accounting
○ Allied health/ Workforce training

25. How many years have you been a teaching member at the primary institution you are now serving?

○ 0-5 years,
○ 6-10,
○ 11-20,
○ > 20

26. How many years total have you taught at the college level?

○ 0-5 years,
○ 6-10,
○ 11-20,
○ >20,

27. Please indicate the best descriptor of your position at the college.

○ Adjunct
○ Instructor/Lecturer
○ Assistant Professor
○ Associate Professor
○ Professor
○ Department Chair who teaches
○ Administrator who teaches

# Appendix E - Letter to College Administrators

Sharon Hyak
Kansas State University
Graduate Program in Adult Learning and Leadership
sharon.hyak@gmail.com
shyak@ksu.edu

Dear (*Academic Affairs Officer, President, or Faculty Developer*),

I, Sharon Hyak, a doctoral candidate of Kansas State University (KSU) Adult Learning and Leadership Program am conducting a research study titled, *Texas Community College Faculty Attitudes About and Perceptions of Professional Development*. The purpose of this letter is to request access to your faculty members to conduct a survey questionnaire. The project received Institutional Review Board (IRB) approval on June 5, 2019

The purpose of this survey research is to gather data regarding faculty experiences with professional development — items in the survey center on faculty characteristics, participation, attitudes, and perceptions. The goal of the dissertation is to provide relevant information for administrators and professional development developers as they consider how to develop and promote professional development activities.

Upon your approval, faculty will receive an invitation to participate which includes the research purpose and goal, as well as an explanation that the survey is voluntary, anonymous, confidential, and appreciated. The one-time quantitative survey (via SurveyMonkey®) requires an estimated ten- fifteen minutes for completion. Data collection may occur during July, August, or September 2019.

Methods include:

- A survey consisting of Likert scale, radio buttons, and yes/ no items.
- Personal factors, including faculty characteristics, will be collected and serve as dependent variables.
- Internal factors data will be collected, examining perceptions about professional development activities and self-efficacy.
- External factors data will be collected to develop how faculty perceive time for participation, funding availability, and college culture influences, including administration and colleagues.
- Faculty will be asked about their beliefs of the benefits of development activities as applied in the classroom.
- Data will be de-identified on the basis of both institution and individual.
- Descriptive statistics, such as means, standard deviations, ANOVA, and multiple regressions, will be used to statistically determine associations, predictions, differences between groups, and reliability.

A faculty (full-time and part-time) email list is requested and needed for the researcher to send the survey. However, you may elect to distribute the survey instrument as opposed to allowing the researcher access to email addresses. If so, the researcher will provide the faculty letter of invitation and the survey to the appropriate college representative.

In requesting this permission, it is understood:

- The data will be maintained securely and confidentially.
  - o The source of the data shall be de-identified using a pseudonym in the results or publication of this study.
  - o A USB flash drive containing data will be stored in the researcher's home office in a locked file for five years and then destroyed.
- Access to, and use of, this data will not be transferred to any other person without express written consent.
  - o Data will not be used for financial gain.
- There are no foreseeable risks or discomforts to the participants.
- This research study has the student's institution IRB approval and a copy of that approval on file at KSU University Research Compliance Office.
- Information and data associated with this study will be available to the dissertation chairs, dissertation committee, and KSU.

Terms of participation. As a representative of (*Institution name)*, it is understood that this project is research, and that participation is voluntary. I also understand that (*Institution name*) decides to participate in this study, consent may be withdrawn at any time, and participation ceases at any time without explanation, penalty, or loss of benefits or academic standing.

I verify that my signature below indicates that I read and understood this consent form, and willingly provide consent for faculty to participate in this study under the terms described and that my signature acknowledges that I have received a signed and dated copy of this consent form.

Thank you. I truly appreciate your consideration and approval.

Sharon Hyak

_____

Representative of the Institution

_____

Signature                                                     Date

# Appendix F - Faculty Recruitment Letter

*Dear (School Name) Faculty Member,*

*I invite you to participate in the following survey. I am a doctoral student under the direction of Dr.*

*Dr. Terry Calaway and Dr. Margaretta Mathis in the Kansas State University, Adult Learning and Leadership Program. I am conducting a research study to evaluate Texas community college faculty attitudes of and perceptions about teacher training professional development.*

*The purpose of this survey is to find out about your experiences with professional development regarding faculty training. The information you provide will help identify faculty attitudes and perceptions about faculty development. The goal of my dissertation is to provide relevant information for administrators and professional development developers as they consider how to develop, fund, and promote faculty development activities.*

*Your participation is voluntary, anonymous, and appreciated. Your responses will not be shared; your responses will not be identified with you. Individual responses will not be reported in the dissertation, but statistical analysis will be applied to combined scores. Furthermore, pseudonyms will be used for your institution, and data will only be used for this research study.*

*Be assured that your responses will remain strictly confidential and you may withdraw at any time from the survey without penalty or loss of benefit.*

*Please take 10 minutes of your valuable time to complete the survey. I appreciate your help because, without it, research on faculty could not be conducted. Your input helps guide higher education institutions like yours in strengthening professional development practices.*

*By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw from participation at any time without penalty.*

*With thanks and appreciation for your participation,*

*Sharon Hyak*

Kansas State University, Doctoral Candidate
Victoria College, Associate Professor of Biology

Questions and comments about this survey should be directed to:
Sharon Hyak, sharon.hyak@gmail.com or KSU Dissertation Chairs, Terry Calaway, terry74@ksu.edu; Margaretta Mathis, mbmathis1@ksu.edu or; KSU University Research Compliance Office comply@k-state.edu

IRB approved June 5, 2019.

# Appendix G - Discussion Figures

Figure G-1

*Survey Item. Please Share Your Perceptions about Funds Availability*
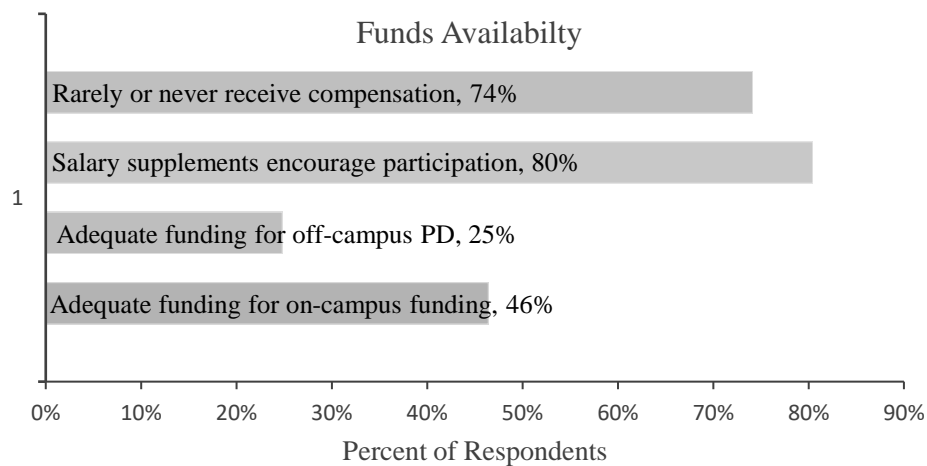


*Note.* Percent results from each question in the survey item, *please share your perceptions about funds availability.*

Figure G-2
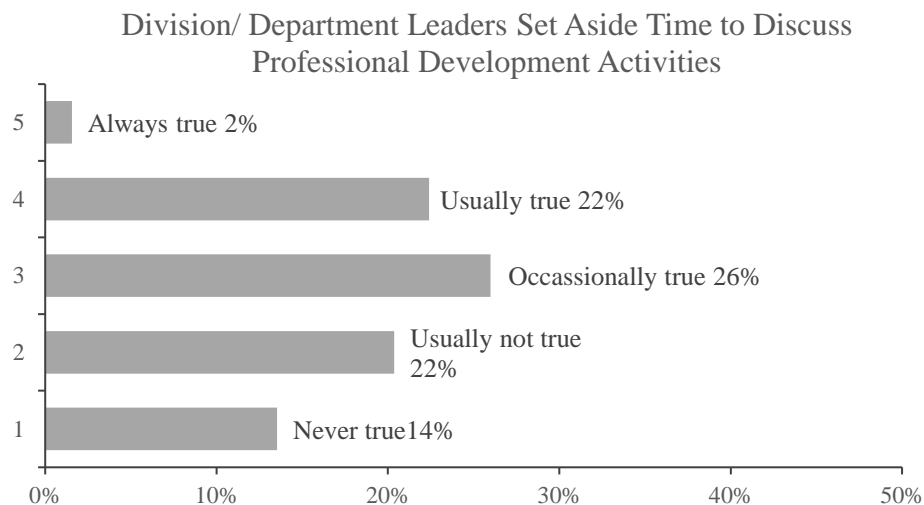
*Survey Item. Please Share Your Perceptions about Time Availibility*
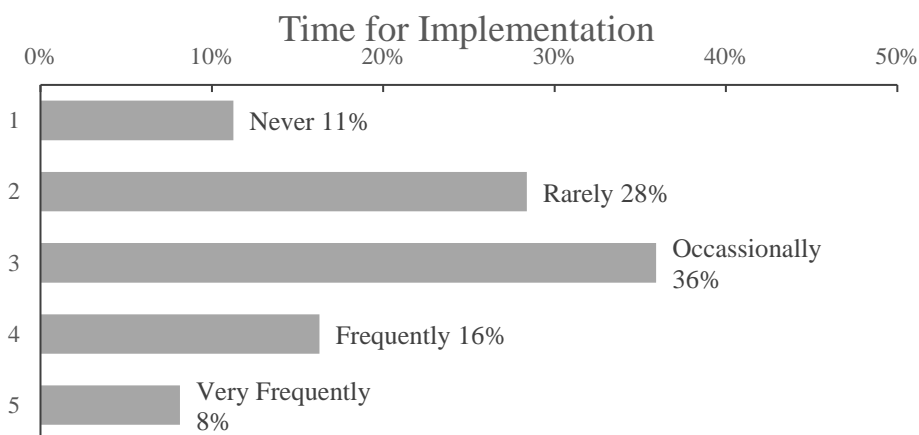


*Note.* Percent results from the question, *my workload does not allow time does not allow time necessary to implement techniques I learned in professional development.*

Figure G-3

*Survey Item. Please Share Your Perceptions about Administrative Support.*

### Division/ Department Leaders Set Aside Time to Discuss Professional Development Activities

| Rating | Label | Percentage |
|---|---|---|
| 5 | Always true | 2% |
| 4 | Usually true | 22% |
| 3 | Occassionally true | 26% |
| 2 | Usually not true | 22% |
| 1 | Never true | 14% |

*Note.* Percent results from the question, *my division, department leaders set aside time to discuss what we learned in mandatory professional development activities.*

Figure G-4

*Survey Item. What types of professional development have you attended?*

### Types of Faculty Development Attended

| Type | Percentage |
|---|---|
| Worked with a teaching consultant. | 7.41% |
| Semester-long training | 19.23% |
| Participated in a mentoring program (as a mentor or… | 31.25% |
| Peer/colleague observation. | 54.84% |
| Seminars | 60.98% |
| Consulted book(s) or research article(s) about teaching. | 63.89% |
| Attended meeting(s) (e.g., discussion groups, brown… | 67.57% |
| Consulted YouTube or other social media related to… | 69.44% |
| Conferences | 74.42% |
| Consulted newsletter(s) or web site(s) related to… | 76.32% |
| Workshops | 86.96% |