A Study of State College Faculty Trust in Immediate Supervisors

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The Study of State College Faculty Trust in Immediate Supervisors

by

Anna Byrd

A Dissertation submitted to the Department of Leadership,
School Counseling & Sport Management
in partial fulfillment of the requirements for the degree of
Doctor of Education
UNIVERSITY OF NORTH FLORIDA
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DEDICATION

To my family.
ACKNOWLEDGMENTS

I would like to thank my committee chair Dr. Matthew Ohlson for his support and expertise. Special thanks go to Dr. Dan Dinsmore – my wonderful methodologist - who agreed to provide guidance and feedback even when we were on two opposite sides of the world. I would also like to thank Dr. John White for his honest feedback that allowed me to make significant improvements to this manuscript. Finally, I thank Dr. Dan Richard for methodological and contextual advice.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>Abstract</td>
<td>x</td>
</tr>
<tr>
<td><strong>Chapter 1: Introduction</strong></td>
<td>11</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>14</td>
</tr>
<tr>
<td>Student success and retention.</td>
<td>15</td>
</tr>
<tr>
<td>Financial savings</td>
<td>17</td>
</tr>
<tr>
<td>Purpose Statement</td>
<td>18</td>
</tr>
<tr>
<td>Overview of Theoretical Framework</td>
<td>18</td>
</tr>
<tr>
<td>Overview of Methodology</td>
<td>21</td>
</tr>
<tr>
<td>Significance of the Research</td>
<td>22</td>
</tr>
<tr>
<td>Limitations and Assumptions of the Study</td>
<td>23</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>25</td>
</tr>
<tr>
<td><strong>Chapter 2: Review of related literature</strong></td>
<td>27</td>
</tr>
<tr>
<td>Definition of Trust</td>
<td>28</td>
</tr>
<tr>
<td>Theories of Trust Development</td>
<td>30</td>
</tr>
<tr>
<td>Social exchange theory</td>
<td>34</td>
</tr>
<tr>
<td>Emancipation theory of trust.</td>
<td>35</td>
</tr>
<tr>
<td>Relational trust</td>
<td>36</td>
</tr>
<tr>
<td>Organizational leadership theory</td>
<td>40</td>
</tr>
<tr>
<td>Trust in Schools</td>
<td>43</td>
</tr>
<tr>
<td>Community and state colleges</td>
<td>50</td>
</tr>
<tr>
<td>Trust in Leadership</td>
<td>54</td>
</tr>
<tr>
<td>Community and state college leaders</td>
<td>55</td>
</tr>
<tr>
<td>Antecedents of Trust</td>
<td>61</td>
</tr>
<tr>
<td>Supervisor attributes</td>
<td>62</td>
</tr>
</tbody>
</table>
Subordinate attributes .................................................................................................................. 64
Interpersonal processes between supervisors and subordinates ................................................. 64
Organizational characteristics ..................................................................................................... 65

Chapter 3: Methodology ........................................................................................................... 66
Research Design ............................................................................................................................ 67
Population, Site, and Sample ........................................................................................................ 67
Sampling procedures .................................................................................................................... 69
Instrumentation ............................................................................................................................. 69
Rasch Scale of Teacher-Principal Trust .................................................................................... 70
Faculty trust survey by Tschannen-Moran and Hoy. ................................................................. 71
Original item modifications ......................................................................................................... 72
Literature review-based questions ............................................................................................... 73
Pilot study ...................................................................................................................................... 75
Validity and reliability of the new instrument ........................................................................... 76
Response rate ............................................................................................................................... 78
Data Collection Procedures ........................................................................................................ 78
Data modifications ....................................................................................................................... 79
Data Analysis ................................................................................................................................ 80
Chapter Summary ....................................................................................................................... 81

Chapter 4. Results and Data Analysis ....................................................................................... 82
Trust Survey ................................................................................................................................. 82
Respondent Demographics .......................................................................................................... 83
Factor Analysis ............................................................................................................................... 86
Path Analysis ................................................................................................................................ 91
Full model .................................................................................................................................... 91
Reduced model ............................................................................................................................. 95
Summary of Results ..................................................................................................................... 97

Chapter 5. Conclusions and Recommendations ........................................................................ 99
Overview of Methodology ........................................................................................................... 99
Research Participants .................................................................................................................. 100
 Synopsis of Data Analysis ........................................................................................................... 100
Summary of Results .................................................................................................................. 101
Interpretation of Findings and Their Relationship to Previous Research .................. 102
Research Recommendations .................................................................................................. 109
Recommendations for state college faculty, administrators, and staff. ...................... 109
Study limitations and suggestions for future research..................................................... 111
References ............................................................................................................................. 115
Appendix A .............................................................................................................................. 130
Appendix B .............................................................................................................................. 131
Appendix C .............................................................................................................................. 133
Appendix D .............................................................................................................................. 134
Appendix E .............................................................................................................................. 135
Appendix F .............................................................................................................................. 137
LIST OF TABLES

Table 1. Summary of Trust Theories ................................................................. 44
Table 2. Summary of Research on Trust in Schools ............................................ 50
Table 3. Summary of Factors Impacting Trust in Organizations .......................... 65
Table 4. Alignment Between Variables and Questionnaire Items.......................... 75
Table 5. Factor Analyses on Items Measuring the Same Constructs ...................... 77
Table 6. Descriptive Statistics ........................................................................... 83
Table 7. Factor Analysis for Dependent Variable .................................................. 88
Table 8. Factor Analysis for Independent Variable ............................................... 90
Table 9. Standardized Beta Coefficients. Path Analysis Reduced Diagram .......... 97
Table 10. Contradicting Results Within the Study ................................................. 108
Table 11. Full Model Correlation Matrix for Measured and Observed Variables..... 135
Table 12. Reduced Model Correlation Matrix for Measured and Observed Variables 136
Table 13. Dependent Variable Factor Analysis Communalities ............................ 137
Table 14. Independent Variable Factor Analysis Communalities .......................... 138
LIST OF FIGURES

Figure 1. Conceptual Framework ......................................................................................... 21
Figure 2. Five Dimensions and Four Assets of Relational Trust .............................................. 39
Figure 3. Comparative Demographic Based on Gender and Ethnicity .................................... 84
Figure 4. Demographics of Survey Respondents .................................................................... 85
Figure 5. Respondents’ Supervisors Demographics ................................................................. 86
Figure 6. Scree Plot for Dependent Variable ........................................................................ 89
Figure 7. Scree Plot for Independent Variable ....................................................................... 90
Figure 8. Full Model Path Diagram ...................................................................................... 92
Figure 9. Reduced Model Path Diagram ............................................................................... 95
Abstract

This quantitative study investigated faculty trust in their immediate supervisors (academic deans and faculty chairs) in a state college setting. A survey instrument created for this study was based on existing research on trust in schools by Bryk and Schneider (2002) and Tschannen-Moran and Hoy (1998), as well as research on trust in corporate setting. The study’s purpose was to determine the types and frequencies of interactions between community college faculty and deans/faculty chairs – i.e., faculty immediate supervisors – that are related to higher levels of faculty trust. Also investigated were the relationships between faculty trust and demographic characteristics including age, gender, ethnicity, length of employment, and number of faculty in department. The study’s findings suggest policies and practices for creating more trusting environments in community and state college settings, thereby leading to higher faculty retention levels. These, in turn, can contribute to increased levels of student success, higher graduation rates, and financial savings for schools.
Chapter 1: Introduction

Interpersonal trust has been declining in the past 40 years in the US. Only about 38 percent of people today would answer “yes” when asked if other people could generally be trusted (Ortiz-Ospina & Roser, 2016); this percentage is even lower for trust in the federal government (Ortiz-Ospina & Roser, 2016), or a workplace supervisor (Llopis, 2013). Since multiple personal and organizational outcomes depend on the quality of supervisor-supervisee relationships, these facts are alarming. According to research, employees of organizations with higher levels of trust between leaders and followers display more creativity, altruism, and commitment to their companies than do their peers in organizations with lower trust levels (Covey & Merrill, 2006; Dirks & Skarlicki, 2004). If trust in leaders is high, employees tend to be more productive and satisfied with their jobs (Gibson & Petrosko, 2014; Payne, 2014). A similar phenomenon appears in K-12 schools: higher trust levels of faculty in principals in K-12 settings have been found to be associated with faculty retention and ultimately affect student success (Torres, 2016). However, prior to this study, no research examining trust between college-level faculty and their supervisors (deans and faculty chairs) existed.

Two large research clusters have examined trust in a school environment (Van Maeled, Van Houtte & Forsyth, 2014): one by Bryk and Schneider (Bryk & Schneider, 2002; 2003; Bryk, 2010) and the other by Hoy and Tschannen-Moran (e.g., Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998; Hoy and Tschannen-Moran, 1999). Both clusters examined trust between various stakeholders involved in schools’ day-to-day operations, including faculty, principals, and clients (students and parents) in K-12 settings. These studies revealed several characteristics of leaders that contribute to improved faculty trust: principals’ respect and care for teachers,
integrity, reliability, professional competency, openness of communication, dignity, and the ability to work up to teachers’ expectations (Tschannen-Moran & Hoy, 1998; Bryk & Schneider, 2002). The findings in this research emphasize frequent principal-faculty interactions as being a major predictor for trust development. However, neither defines the number of interactions that constitutes ‘frequent’ or the types of interactions that produce more trusting relationships.

Frequency and interaction type are two factors that can be controlled and adjusted. Continuous development of technology and its integration into an educational setting allow for interactions not possible even 10-15 years ago (Tapscott, 2009). Platforms such as Skype, Zoom, FaceTime, GoToMeeting, and others allow people to meet without traveling to a meeting site. Applications like WebEx provide opportunities for screen- and document-sharing, thereby also saving time and money. Email and other forms of written electronic communication allow information exchange to be fast and, thus, improve productivity. Although workplace communication through various digital tools is inevitable, some research suggests that relying on electronic tools for communication reduces face-to-face interactions and so can lower levels of interpersonal trust (Naquin & Paulson, 2003; Wilson, Straus & McEvily, 2006).

While research on faculty trust in principals in K-12 setting exists, faculty trust in their supervisors within a higher education setting has received minimal attention. Straightforward comparisons of K-12 and higher education is rarely possible or warranted considering the radically different contexts (Jenkins, 2006). Not surprisingly, some findings regarding trust within a K-12 setting indicate that trust develops differently depending on context (e.g., Tschannen-Moran, 2014). Trust levels have been found to vary at different educational levels (Ladd, 2011; Leis & Rimm-Kaufman, 2016) and even on different campuses of the same school.
(Adams, 2010). Further complicating K-12 and college comparisons is size; faculty of smaller schools tend to be more trusting in each other and their leaders than employees of larger institutions (Bryk & Schneider, 2002; 2003).

Examining the development of faculty trust within higher education has important implications, as higher levels of faculty trust have been found to be associated with higher faculty retention levels (Stallard, Dewing-Hommes & Pankau, 2007; Torres, 2016). In fact, some research has suggested that leadership is one of the most important factors affecting teachers’ decisions to leave a school or the teaching profession itself (Torres, 2016). By performing their various duties, leaders impact faculty professional lives on a daily basis, making faculty highly dependent on their actions and decisions (e.g., Bryk & Schneider, 2002). Moreover, high turnover rates impede faculty members’ ability to grow professionally and erode students’ social bonds and sense of belonging (Torres, 2016). When faculty depart their institutions, newcoming instructors require a considerable amount of time and effort to become immersed in their new working environments and engage with their students to ensure success (Gappa, 2007).

Faculty retention, in turn, leads to improved student success (Tinto, 1999; Treat & Hagedorn, 2013) and significant financial savings for a school (Pendegraft, 2015). With a more stable faculty body, students are more likely to create bonds with their instructors; additionally, retaining a faculty member eliminates expenses associated with recruitment, search, selection, and hiring of a new instructor (Soormo & Ahmad, 2013). Faculty retention and financial savings are especially important for community and state colleges, which often operate on a “shoestring budget” (Gomez, 2014, p. 6) and have non-traditional student populations (Adams, 2010).
Community and state colleges play a major role in the American system of education. Today, there are over 1100 community and state colleges in the United States (Bumphus, 2017). These institutions offer a vast variety of programs, ranging from dual enrollment courses, vocational training, and certificates to associate and even baccalaureate degrees (Boggs, 2011; Eddy & Boggs, 2010; Kasper, 2002). Local communities rely on community colleges because of these colleges’ affordability, and businesses rely on their area-targeted workforce training programs (Eddy & Boggs, 2010; Kasper, 2002). Four-year universities annually accept thousands of students enrolled in various “bridge programs” (Adams, 2010): community and state colleges attract non-traditional student populations that often do not see themselves as students of classic four-year institutions or are not quite ready to attend these.

**Problem Statement**

Supervisor-supervisee relationships have been studied from multiple perspectives and in multiple settings, and a large body of research concerns faculty-supervisor relationships in both universities and community and state colleges (Jenkins, 2006; Reed, 2017). At the same time, while an electronic search using the key words “community college leadership” in just the ERIC data base yields over 5000 hits, it also reveals a lack of literature or cases examining trust. However, employee trust in leaders and, more specifically, faculty trust in school leaders can have multiple positive impacts, including decreased faculty turnover (Ladd, 2011).

Research affirms that employee turnover decreases substantially if faculty trust their supervisors (Stallard et al., 2007): trust in leaders allows for better information flow and promotes communication and productivity (Burke, Sims, Lazzara & Salas, 2007; Covey, Link & Merrill, 2012; Covey & Merrill, 2006); trust prompts faculty to exceed their prescribed
responsibilities and take on new roles (Bryk & Schnedier, 2002), so faculty who trust their supervisors are more likely to stay and work through problems together with supervisors and colleagues rather than simply leave the organization (Batchelor, 2014; Cohen, 2014; Payne, 2014). Faculty retention, in turn, produces two other important outcomes: student success and retention and financial savings for the institution.

**Student success and retention.** A stable faculty body is a significant factor in predicting student success and retention, since only stability of the body of faculty can allow students to create bonds with their instructors. A survey of students by Huh, Kinzie, Schuh, and Whitt (2005) suggests that, in order for students to be successful in their classes, professors need to be passionate, approachable, compassionate, find time to listen (even with heavy teaching loads), and be willing to go beyond the scope of their duties in many other ways. Tinto (1999) made similar suggestions; he argued that for community college students to be successful, they should be connected to faculty, especially during their first year at the college. It is not enough for faculty to teach a class and be present during office hours; to ensure student success, faculty must actively participate in support programs such as “First Year Experience,” collaborate with other institutions in their region, and even participate in global multicultural projects and initiatives (Treat & Hagedorn, 2013). High instructor turnover makes it difficult for faculty to become involved with the college and grow professionally and for students to build social bonds and develop a sense of belonging (Torres, 2016). This is especially true when it comes to community or state college students who, for a number of reasons, are at a higher risk of dropping out of school (Kalogrides & Grodsky, 2011). Community college students tend to be commuters and thus do not live on campus (Aldridge, 2014), their average age is 28, and many
must balance work, school, and family responsibilities (Adams, 2010). In addition, many of the students attending community colleges are representatives of minority groups (Boggs, 2011; Jenkins, 2006; Kasper, 2002), first-generation college students, or those from the lowest income quartile (Adams, 2010). Diversity among community college students is significantly greater than that among students of four-year universities; the percent of minority students in the state college selected for my study for example, is about 50, while the percent of minority students in a four-year university located in the same area is less than 30. These statistics should not be left unnoticed because minority students are “less likely than other students to complete a degree or transfer to a baccalaureate program” (Jenkins, 2006, p. 1).

According to the Florida Department of Education (2016), out of 843,733 students enrolled in open-access institutions in Florida during the 2012-13 school year, only 115,908 were awarded their degrees three years later, a 13.7% graduation rate. Faculty, being in the forefront of the educational process, often directly impact students’ decisions to drop out of school (Cooper et al., 2014). By working directly with students, faculty have a chance to create a learning environment that is nourishing and supportive, yet rigorous and academically challenging at the same time. Being able to create this environment requires faculty to know the school’s operations and the type of students with whom they work, and learning these demands time. Retaining faculty provides instructors the time to learn and become more comfortable in their work environment and, as a consequence, spend the majority of their time working with students. Students, in turn, may then feel more connected to the faculty and the school itself, thereby improving student success and increasing graduation rates (Tinto, 1999).
**Financial savings.** Replacing a faculty member can be costly (Ehrenberg, Kasper & Rees, 1990; Soormo & Ahmad, 2013; Vail, 2005). From recruiting through hiring, the search process in most colleges is lengthy and complex. The cost of replacing consists of recruiting, lost productivity during training of the new employee, lost efficiencies of others in the unit, and lost revenues (Bachrach, 2005). Additional expenses incurred arise from the work of the search committee, new faculty moving expenses, and new faculty startup costs (e.g., purchase of new equipment). On average, these costs add up to about $32,000 per each new faculty member (Pendegraft, 2015). Faculty retention means that funds that would have been spent replacing a faculty member were instead directed towards other purposes: improvements related to school technology, faculty professional development, facility improvements, supplies, etc.

The existing empirical evidence concerning the importance of trust in workplace leadership and the significance of community and state colleges for the American education system point to the importance of this study investigating trust within these settings. The problem this study addressed is the lack of empirical literature on trust of community and state college faculty in their immediate supervisors.

For this study, I surveyed the faculty of one Florida state college located in northeast Florida to explore attributes of supervisor-faculty relationships, i.e., measurable characteristics of trust and the frequency and types of interactions they have with their supervisors. Analysis of the data obtained from the survey revealed how various professional interactions between supervisors and faculty impacted faculty trust. Additionally, several demographic variables were examined within the context of the study to gain insight into the faculty-trust development process. This research added to the body of research on trust in the specific context of the
community/state college by producing a model of trust development that can serve as a basis for future research; by developing a current knowledge base on ways to improve trust between faculty and supervisors employed by state colleges; and by suggesting several routes through which educational practitioners and policy-makers can achieve higher levels of faculty trust and thus improve faculty retention rates and student success.

**Purpose Statement**

The purpose of this study was to determine frequency and type of interaction between state college faculty and deans/faculty chairs – i.e., faculty’s immediate supervisors – that are related to higher levels of faculty trust. Specifically, the study addressed the following research questions:

**Research Questions**

1. What types of professional interactions between faculty supervisors and faculty are related to improved levels of faculty trust?
2. What frequency of interactions between faculty and their supervisors is related to improved levels of faculty trust?

**Overview of Theoretical Framework**

Previous research on faculty-supervisor trust has used various theoretical approaches and perspectives to explain the phenomenon of trust (Fulmer & Gelfand, 2012), but some theories are seen in the literature more than others. Trust in organizations has been framed using the emancipation theory of trust (Yamagishi, 2011), relational trust (Bryk & Schnedier, 2002), organizational leadership theory (Tschannen-Moran & Gareis, 2015), and social exchange
theory, which has been used more often than the others (Hakan & Jamel, 2013; Nainaber et al., 2015). Chapter II includes more detailed descriptions of these previously used approaches.

To frame this study situated in a single community college in Florida, I drew on research by both Bryk and Schneider (2002) and Tschannen-Moran and Hoy (1998) in K-12 settings, as well as on trust studies in other types of organizations. While many processes that are in place in K-12 differ from those in higher education and while public schools are smaller than many colleges, including the one that served as a site for this study, K-12 and higher education share the same goal (i.e., educating students). Because of the similarities between K-12 and higher education, framing this study based on research performed in K-12 was appropriate. Drawing from the trust literature in larger organizations may compensate for the differences among public schools and colleges in terms of tuition, size, number of employees, number of students, student demographics, and other factors.

According to Bryk and Schneider (2002, 2003) and Tschannen-Moran and Hoy (1998), teachers’ trust in their principals is based on principals’ demonstration of respect, personal regard, personal integrity, honesty, openness, benevolence, reliability, propensity to trust, competence in their profession, and frequent interactions. These are the components of trust that I used to measure the level of faculty trust in their immediate supervisors. Additionally, trust can improve if leaders share decision-making with their employees, if employees have higher level of initial trust, and if their trust in previous supervisor was high. These parameters were also included in the framework. In summary, the following parameters were used as measurable characteristics of trust of faculty in their supervisors in a state college setting: respect, personal regard/benevolence, propensity to trust, integrity/honesty, competence, openness/shared
decision-making, reliability, vulnerability, initial trust, and trust in previous supervisor. Faculty who score high with respect to these attributes also exhibit a higher level of trust than those who score low.

The aim of this study was to investigate the specific frequencies and types of faculty interactions with their supervisors and the impact of these interactions on levels of faculty trust; additionally, it explored the association between faculty and leader demographics and faculty trust development. While findings of previous research suggested that frequent interactions between parties are related to trusting relationships in K-12 and corporate environments, no study had explored the specific frequency and specific interaction types that are related to improved trust of faculty in their immediate supervisors. Additionally, to my knowledge, no published research concerning faculty trust in a community or state college setting exists, a gap in the literature that this study aimed to fill. Figure 1 details the study’s conceptual framework.
Overview of Methodology

This study employed a quantitative research methodology. A one-time online-based survey was employed to capture faculty attitudes toward their supervisors’ characteristics. The population of this study was comprised of all faculty, whether full-time or part-time, employed by a selected state college in northeast Florida. The entire population was invited to participate in the study, making the study’s sampling procedure a census sampling (Muijs, 2011). Based on the study’s conceptual framework and on reviewed literature concerning trust, I employed a
questionnaire created from the two major research clusters on trust in schools and trust antecedents from the literature. The two original instruments were Bryk and Schneider’s Rasch Scale of Teacher-Principal Trust (2004) and Tschehannen-Moran and Hoy’s Faculty Trust Survey (1998). Since the instrument I created was new and therefore completely untested, I conducted a pilot study, whose participants suggested no modifications to the survey instrument.

I analyzed the data with the Statistical Package for the Social Sciences (SPSS) computer software using factor analysis on both dependent and independent variables followed by a path analysis performed in EQS (Structural Equation Modeling) computer software.

**Significance of the Research**

Multiple research conducted on the subject of trust has revealed its importance in personal and organizational outcomes. Employees who trust their supervisors have been found more likely to go beyond their prescribed duties, are happier at their jobs, and are less likely to leave their organizations (e.g., Dirks & Skarlicki, 2004; Ladd, 2011). While the literature discusses the steps needed to improve employee level of trust in their leaders in corporate and K-12 settings, there has been no similar inquiry within the context of higher education. Direct comparison of organizations, even those that belong to the same industry, is rarely possible, and this is particularly true for schools (Jenkins, 2006).

One factor identified as affecting level of trust of faculty for their principals in K-12 is frequent interactions. Since this factor can be adjusted by both faculty and supervisors employed by community and state colleges, research was needed to determine what types and frequency of interactions of faculty and their deans/faculty chairs can promote higher levels of trust. In the context of a state college, faculty trust in immediate supervisors was also found to increase with
increase in number of interactions. Based on this result, with the goal of improving trust levels in their supervisors, both faculty and supervisors should seek interactions with each other through various modes of communication.

This finding should also be of interest to state college human resource departments and state-level policy-makers. Since frequent professional interactions between faculty and their supervisors produce higher levels of trust, faculty and supervisor job agreements or job descriptions may need to be adjusted to specify a minimum number and type of such interactions.

Another important factor in initial development of trust identified in this study was the length of a supervisor-supervisee relationship. At the time the survey was taken, the level of perceived initial trust was strongly correlated with the time a faculty and a supervisor had worked together, a result having practical implications for state college administrators, human resource departments, and hiring committees. Well-organized recruitment, selection, and hiring processes can help identify and recruit quality administrators who are willing to stay.

Finally, most faculty reported that they felt more trust in their supervisor if they worked in a smaller department/division. While differences in sizes between departments are unavoidable, college hierarchical structures can be adjusted to create smaller organizational units where possible.

Limitations and Assumptions of the Study

The limitations and assumptions underlying the study included the following:

- Florida’s twenty-eight community colleges employ over 6,000 full-time faculty and 16,000 adjuncts and have locations throughout the state, including urban,
suburban, and rural areas (Florida Department of Education, 2016). Only one community college located in northeast Florida was included in the study.

- To increase sample size (Roberts, 2010), full-time and part-time faculty were invited to participate in the study. However, the points of view of adjunct faculty may differ from those employed full-time and is an issue worthy of study in its own right.

- The study only included and investigated the effects of frequency and type of interactions on trust. Additional impacts of personal demographic characteristics of both supervisors and faculty were also included and are discussed in the “Results” section. The inclusion of demographics was prompted by findings of Bryk and Schneider (2002), who identified their possible significance on development of trust. Other studies, however, have shown the significance of other organizational and personal characteristics in forming trusting supervisor-supervisee relationships that should be addressed in the future studies.

- Only trust of faculty in immediate supervisors was investigated in this research. It has been shown that trust is a reciprocal property (Dirks & Starlicki, 2004; Forsyth & Adams, 2008; Hoy & Tschannen-Moran, 1999); however, the possible effect of reciprocity was not taken into account in the context of this study. Additionally, studying trust at various organizational levels at once might be necessary to learn whether faculty trust development is impacted by their trust in higher level administrators and faculty overall trust in the organization (Hoppes & Holly, 2014; Sutherland & Yoshida, 2015).
• The sample was representative of the total population of faculty employed by the selected college.

• The responses received from faculty were open, honest, and accurately reflective of their professional opinions and were given in a manner not influenced by a professional relationship with the researcher.

• Economic conditions and changes beyond the control of the study did not impact study validity.

• The participants had a common understanding of the trust survey and the data collection processes being utilized.

• The associations between variables identified in this study were obtained through the use of a pilot-study-validated perception-based instrument.

Definition of Terms

- **Faculty trust in their immediate supervisors** is faculty expectations of trustworthiness and a willingness to be vulnerable and to assume professional risks, based on the perceived reliability, benevolence/personal regard, honesty/integrity, openness, competence, and respect of their immediate supervisor, their dean or faculty chair, even in situations of uncertainty.

- **Dean** is the head of a college faculty or department, whose responsibilities include, but are not limited to performing full-time faculty evaluations, conducting faculty meetings, handling student complains, and performing other internal faculty- and student-related administrative duties.
• **Faculty chair** is an administrator who reports to the dean and is the immediate supervisor of adjunct faculty; this position performs part-time faculty evaluations, handles student complains, and performs other internal faculty- and student-related administrative duties.

• **Faculty** are full-time and part-time teaching professionals employed by colleges.

• **Demographic characteristics** include such characteristics as gender, ethnicity, number of years working together, age, number of faculty in the department/division.
Chapter 2: Review of related literature

This chapter will detail the process of creating the study framework, while recognizing the differences and similarities between four selected trust theories. It will detail antecedents of trust and discuss the unique features of American community colleges and the importance of studying faculty trust within them.

Difficulties of studying trust arise partially from the large number of definitions of trust and the even larger number of models and theoretical approaches to trust development. While trust in higher education has received little attention, Bryk and Schnedier (2002, 2003) and Tschannen-Moran and Hoy (1998) created relational trust theory and organizational leadership theory to investigate K-12 faculty trust in their principals. This study used these theories as well as the emancipation theory of trust and the social exchange theory to create a conceptual framework within which to investigate state college faculty trust in their immediate supervisors.

Community and state colleges are unique open-access educational organizations that offer a variety of programs and courses and attract non-traditional student populations. They are often larger in size than public schools and have a different hierarchical structure, yet both public schools and community and state colleges educate students. While they share some similarities with public schools, community and state colleges also resemble commercial organizations in that they provide a good (i.e., courses) directly paid for by consumers (students). Since state colleges possess features common to both educational and commercial organizations, drawing on the literature concerning trust in both fields was critical. Specifically, in my research, I emphasized organizational trust theories, theories of trust development in a K-12 setting, and
empirical and theoretical work on shared decision-making – an inalienable component of trusting relationships between subordinates and supervisors.

**Definition of Trust**

One difficulty of studying trust is the number of definitions given for this construct (Hoy & Tschannen-Moran 1999, Mollering, 2006). For instance, Hoy and Tschannen-Moran (1999) examined 16 different definitions of “trust,” and, now, almost twenty years later, other research has provided yet more ways to define it. The definitions range by context (business, education, production, romantic relationships, etc.) and to the nature of the roles of trustor and trustee (leader and follower, coworkers, teacher and student, romantic partners, etc.) Trust is defined differently based on the triggers that prompt one party to trust or distrust another – i.e., trust as a psychological state (e.g., Dirsk & Starlicki, 2004; Rousseau, Sitkin, Burt, & Camerer, 1998) or as a choice behavior (Kramer, 1999) – and the degree of the dependence between trustee and trust referent. Finally, trust can be defined as a general concept (e.g., Dirks & Starlicki, 2004) or as a relatively more specific one in which one party trusts another to perform a specific action (e.g., Lewicki, Tomlinson, & Gillspire, 2006). One may further refine definitions of trust by context, in this case that of schools. Educational institutions are complex social systems (Leis & Rimm-Kaufman, 2016). They are the ever-changing environments where new initiatives arise all the time and social uncertainty is high (Forsyth & Adams, 2008; Kasper, 2002; Torres, 2016). In situations with high social uncertainty (Yamagishi, 2011), when little or no guidance is provided on how to act, parties must take risks which, in turn, require trust (Dirks and Ferrin, 2001; Lewiki, Tomlinson & Gillspire, 2006).
Multiple authors have used various metaphors to describe trust: a lubricant, a grease, or a glue that holds social relationships together (Cranston, 2011; Fink, 2014; Sutherland & Yoshida, 2015; Yamagishi, 2011). This definition is far from formal, of course, but summarizes the importance of trust in any relationship. Following are a few examples of how trust has been defined over the last thirty years.

Baier (1986) defines trust as reliance on the other’s good will in caring for something important to the trustor; as a show of confidence that one party will not harm the other. Mayer, Davis, and Schoorman (1995) define trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party” (p. 712). Dirks and Starlicki (2004) describe trust specifically in a leadership context as a psychological state, belief, or perception held by the follower, involving positive expectations about the behavior and intentions of the leader as they relate to the follower. The American Psychological Association (APA) dictionary of psychology (VandenBos, 2015) defines trust as the degree to which one party can depend on another party to do what they say they will do, where predictability is the primary factor. According to Tschannen-Moran and Hoy (1998), trust is one’s willingness to be vulnerable to another based on one’s confidence that the other is benevolent, honest, open, reliable, and competent. Finally, Bryk and Schneider (2002) define trust as a consequential property of an organization that is achieved through interactions and the display of respect, personal regard, integrity, and competence.

Despite the differences between definitions of trust, two ideas appear in all of them: positive expectations of trustworthiness and a willingness to accept vulnerability (Rousseau et
A positive expectation of trustworthiness is the perception that one party can rely on another party (Fulmer & Gelfard, 2012). Vulnerability is a quality or feeling of being easily hurt, and levels of vulnerability and of initial trust often increase or decrease simultaneously. With higher levels of initial trust, parties exchange information about one another and thus willingly increase their level of vulnerability; if initial trust levels are low, however, parties withhold information from each other, decreasing vulnerability, but also not supporting the development of trust (Salas, Rico, & Passmore, 2017).

Because the conceptual framework employed for the study is largely based on Bryk and Schneider’s (2002) and Tschannen-Moran and Hoy’s (1999) work, I employed their definitions of trust and incorporated it with the main ideas of previously established definitions to create a working definition for use in the conduct of this study. Thus, I defined trust as faculty expectation of trustworthiness and a willingness to be vulnerable and take professional risks, based on the perceived reliability, benevolence/personal regard, honesty/integrity, openness, competence, and respect of their immediate supervisor - the dean or faculty chair, whichever applies - even in situations of uncertainty.

Theories of Trust Development

As there are multiple definitions of trust, there are also multiple approaches to explain and model how trust develops and what consequences it creates for individuals and organizations. Disciplines like economics, psychology, and sociology have contributed to the conceptualization of this multidimensional construct (Rousseau et al., 1998). Some researchers have studied trust as a consequence and as an antecedent of various behaviors and organizational characteristics (Dirks & Starlicki, 2002; Nainaber et al., 2015). When researchers have examined
trust as a predictor, they have modeled it either as a direct cause of several organizational and individual outcomes or as a moderating cause of others (Dirks & Ferrin, 2002). Some have treated trust as static, when only a snapshot of it is taken at any given time, while others have treated it as dynamic, where relationship development is followed over a period of time (Rouessau et al., 1998; Tschannen-Moran, 2004). Depending on the length of the relationship between two parties and the goals of the trustor, theorists have identified several forms of trust, including forms based on deterrence, calculus, knowledge, relations, and identity (Rouessau et al., 1998). As relationships develop from their initial stages to more mature ones through multiple interactions, fulfilling the positive expectations of the other party, the bandwidth of trust between the parties increases, causing trust to grow from a deterrence-based to a knowledge-based, relational, or, in some cases, even an identity-based form (Nienaber, Romeike, Searle & Schewe, 2015; Rousseau et al., 1998).

Some scholars have identified two “traditions” of trust, depending on its motivation: psychological state or choice behavior (Lewicki et al., 2006; Nienaber et al., 2015). As a choice behavior, trust is entrusting another party with an action important to the trustor, whereas trust viewed as a psychological state is a perception, or feeling, that the individual being trusted is trustworthy.

In contrast to the above-mentioned researchers, who treat trust as having multiple stages of development, different triggers, and, as a result, different consequences, numerous other scholars have suggested that trust has multiple dimensions or subfactors (McAllister, 1995). Lewicki et al.’s models of trust, for example, propose cognitive, emotional, and behavioral subfactors, coexisting simultaneously and determined by a cognitive choice of whom to trust.
(cognitive subfactor), an emotional bond with the trustee and feelings of hope, skepticism, fear, etc. (emotional subfactor), and a reliance on others to act in trustworthy manner (behavioral subactor). Similarly, Tschannen-Moran and Gareis (2015) suggest that trust has interpersonal and task-oriented dimensions. The interpersonal dimension of trust consists of openness, benevolence, honesty, and reliability whereas its task-oriented dimension is competency in decision-making and task completion.

Some authors have also modeled trust as the opposite of distrust (e.g., Lewicki et al., 2006). Distrust is a negative expectation of another’s conduct (Lewicki et al. 2006), a “toxin” (Fink, 2014; Hallam et al., 2014) that divides two parties. In a climate of distrust, employees seek to protect their own interests from the opportunistic behavior of others (Tschannen-Moran & Hoy, 1998). Distrust can be costly; in an environment of distrust, working is unpleasant and uncomfortable, employee productivity and motivation suffer, and overall organizational effectiveness declines (Hoy & Tschannen-Moran, 1999; Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998). In some models of trust development, distrust can increase when trust decreases, or they can co-exist and both simultaneously be high or both be low (Lewicki et al., 2006). The development of trust versus distrust is determined by the duration of the relationship between the two parties and the nature of their previous interactions (Lewicki et al., 2006).

**Breach of trust and trust rebuilding.** One trusts another if expectations and obligations are synchronized (Bryk & Schneider, 2002; Torres, 2016). If there is no synchrony, then there is no trust, and the relationship is weakened (Bryk & Schnedier, 2002). In its initial stages, trust may be irreparably damaged by only one violation, whereas, in established relationships, this may occur only after several trust violations (e.g., Tschannen-Moran, 2004). While a violation of
trust brings on a range of negative emotions, including feelings of loss of influence and control and of anxiety (Awan, 2014), effective leaders are alert to indications of distrust and are prepared with strategies for trust rebuilding (Tschannen-Moran, 2014). Through open communication, support, and addressing the immediate concerns of followers (Awan, 2014), effective leaders equalize the power within organizations and open the way for constructive change (Tschannen-Moran, 2004). Despite the difficulties associated with trust rebuilding, to promote cooperation and motivate employees, effective leaders can attempt to heal the conflict through openness and predictability (Bylok, Cichoblasinski, Pabian & Zawanda, 2015; Michael Gorbachev, Speech to the UN, 1988; Tschannen-Moran, 2004).

While most of the time distrust is considered a negative aspect of a relationship, it can sometimes be healthy for future development of trust: it can eliminate a situation with too much (or too blind a) trust (Lewicki et al., 2006). Trusting someone blindly is refusing to recognize untrustworthy behavior and take appropriate measures to protect oneself (Lewicki et al., 2006; Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998). Trust levels should be appropriate to the context and can vary from minimal to high, depending on the situation (Tschannen-Moran, 2004). Employees of successful organizations trust their leaders enough to concentrate on working efficiently and creatively, and yet act appropriately to reduce professional vulnerability (Fink, 2014).

Scholars who have studied trust have employed several theories to frame this construct, and some theories have been used more often than others. Below is a synopsis of some of the theoretical work on the subject of trust in organizations in general and in schools specifically. Important to note is that theories of trust development in schools (relational trust and
organizational leadership theory) are of significant importance to this study, since its purpose is to determine frequency and types of interactions between state college faculty and their immediate supervisors that are related to higher levels of faculty trust. I employed the two models derived from these theories to create the conceptual framework for this study (see Figure 1) and completed the model with shared decision-making, initial trust, and trust in previous supervisor – an antecedent to trust derived from the organizational trust literature.

**Social exchange theory.** In the trust-related literature, scholars have employed social exchange theory more often than others (Nainaber et al., 2015). This theory proposes that any social exchange is built on the principle of reciprocity (Cropanzano & Mitchell, 2005): that is, what one party puts into a relationship, the other party, ideally, reciprocates (Emerson, 1976; Fulmer & Gelfard, 2012). Dirks and Starlicki (2004), Forsyth and Adams (2008), and Lewicki et al. (2006) also incorporate the idea of reciprocity in their models of trust development. The absence of fair return produces anger and dissatisfaction, which people vent through distrust and hate-based behaviors toward those who caused it (Blau, 1964). Parties enter the relationship after analyzing how others’ actions advance their own interests and self-esteem, and they expect to derive a benefit from this relationship through cooperation with the other party (Bryk & Schneider, 2003; Fulmer & Gelfard, 2012). When both parties perceive these social exchanges as mutually beneficial, their relationship evolves into a trusting, loyal, and committed one (Cropanzano & Mitchell, 2005). In fact, Blau (1964) refers to trust as an “underlying outcome of favorable social exchanges” (p.195).

Social exchanges between leaders and followers, ideally, should be based on reciprocated trust. If trust is present in leader-follower exchanges, it leads to improved employee attitudes,
improved performance, greater effort on the part of employees, improved organizational citizenship behavior, and a reduction in the number of workplace conflicts (Blau, 1964; Dirks & Starlicki, 2004; Fink, 2014). However, if subordinates think that power demands in the organization are not fair, they may feel oppressed and exploited and seek to resist the current power structure (Blau, 1964; Dirks & Starlicki, 2004; Tschannen-Moran, 2004). Specifically in schools, faculty trust in their leaders increases teacher engagement (Gibson & Petrosko, 2014), helps with problem-solving (Gomez, 2014) and improves student outcomes (Bryk & Schneider, 2003; Tschannen-Moran & Gareis, 2015). If teachers trust their leaders, they are more likely to exceed their formal job responsibilities (Bryk & Schnedier, 2002) and are generally more likely to remain in their current position (Gibson & Petrosko, 2014; Torres, 2016). Teacher retention, in turn, may positively affect student success, since high teacher turnover makes it difficult for students to build social bonds with teachers and develop a sense of belonging within the school (Tinto, 1999). Additionally, a high teacher turnover rate eliminates teachers’ ability to gain experience at a specific school, reduces their opportunities for professional development, and makes it almost impossible for faculty to grow professionally (Hanushek, Rivkin, & Schiman, 2016; Torres, 2016; Vail, 2005).

**Emancipation theory of trust.** Yamagishi and partners (1998, 2011) discuss the emancipation theory of trust and suggest that trust development only happens in situations with high social uncertainty, where trusting others is the only way to build committed relationships. In contrast to social exchange theory, which assumes that relationships grow into trusting ones over time, the emancipation theory of trust suggests that trust must be present at the beginning of the relationship: one party does something for the other party, and expects something in return.
without such a return being guaranteed (Yamagishi, 2011). Once the relationship develops and the parties get to know each other better, predictability increases and the level of social uncertainty declines (Yamagishi, 2011). Yamagishi, Cook, and Watabe (1998) describe committed relationships with low levels of social uncertainty as those where partners experience assurance rather than trust. Several aspects of commitment can have a somewhat negative impact on the parties involved however; when committing to a relationship, one often incurs an opportunity cost – forgoing a new relationship that might confer even greater opportunity on this party, or incurring a significant transaction cost – and takes a risk by exiting an established relationship and entering into a new one that might never develop into a commitment (Rousseau et al., 1998; Yamagishi et al., 1998; Yamagishi, 2011). In a trusting environment, the parties often choose to incur the opportunity cost rather than the transaction cost due to loyalty to their current partner, possibly due to the lengthy time it would take to form the new commitment relationship and also often due to decreased trust in “outsiders” (Yamagishi, 2011).

**Relational trust.** Relational trust is a special case of social trust - a consequential property of an organization that encompasses distinctive qualities of interpersonal social exchanges in school communities (Bryk & Schnedier, 2002). The presence of relational trust among teachers, principals, students, and parents allows schools to be more successful in fulfilling their missions, which often call for creation of more academically challenging and rigorous environments for their students (Bryk & Schneider, 2002). Achieved through interactions and developed around group norms of safety and risk-taking, relational trust is a foundation for the successful functioning of a school (Bryk & Schnedier, 2003; Cranston, 2011). It is both parties’ understanding of the obligations and expectations of each (Bryk & Schneider,
Bryk and Schnedier (2002) assert that relational trust consists of four assets that parties use to analyze the behaviors of others: respect, personal regard, competence, and personal integrity (Bryk & Schneider, 2002; 2003; Sutherland & Yoshida, 2015). The next paragraph details the definitions of trust assets developed by Bryk and Schneider (2002).

*Respect* is one’s willingness to listen to another person, even if the other’s opinion does not correspond with one’s own beliefs. Without respect, conflicts easily erupt because interactions tend to cease. *Personal regard* is one party’s willingness to extend participation in the other party’s life beyond formal job descriptions. Leaders can demonstrate personal regard to teachers, for example, by showing interest in their daily school routine or their personal lives. *Competence* is one’s professional ability to produce desired outcomes. Incompetence leads to negligence, which undermines trust. *Integrity* is the ability to keep one’s word and match it with actions. In the absence of integrity, trust in another party declines. Relational trust can be diminished, even if it is only broken down along one of the assets listed above (Bryk & Schnedier, 2002).

Edwards-Groves, Grootenboer, and Ronnerman (2016), who studied relational trust between teachers and instructional leaders, provide another view on relational trust. They suggest that relational trust is nothing but a collegial relationship, a feature of educational work that is developed and nurtured in a community of practice (Edwards-Groves, et al., 2016; Kemmis, Edwards-Groves, Wilkinson, & Hardy, 2012), which is a collaborative, informal group of people who develop shared practices and perspectives in the process of working towards building knowledge while cooperating and solving real-time work problems (Honig, 2006; Hung, Looi & Koh, 2004; Raelin, 2006). Distrust among the members of a community of practice produces fear
and defensiveness, and so trusting each other is a condition for the «membership» (Cranston, 2011).

School leaders are the primary driving force behind creating a trusting environment within a school community (Cranston, 2011). With the support of a school’s leaders, relational trust develops in a community of practice over five interconnected dimensions: interpersonal, interactional, intersubjective, intellectual, and pragmatic (Cranston, 2011; Edwards-Groves et al., 2016). Along the interpersonal dimension, leaders demonstrate respect and engender confidence in their faculty. The interactional dimension determines the way leaders open and sustain safe spaces for faculty collaboration and learning, as they develop a shared language and an understanding of one another’s practices. By way of the intersubjective dimension, leaders demonstrate collegiality with faculty members by using a shared language and participating in shared activities. Along the intellectual dimension, leaders convey confidence, professional knowledge, and wisdom to their faculty. Finally, along the pragmatic dimension, leaders demonstrate their ability to set practical, relevant, realistic, and achievable goals for their teachers and schools.

The five interconnected dimensions reflect the four assets detailed by Bryk and Schneider (Figure 2): respect, personal regard, competence, and integrity. Along the interpersonal and interactional dimensions of relational trust, for example, leaders demonstrate respect to their faculty peers; along the intellectual dimension, they exhibit competence in the work they do; along the pragmatic dimension, leaders demonstrate integrity by being realistic and practical with respect to their goals and expectations; and, finally, along the intersubjective dimension, they express personal regard for faculty members by engaging in collegiality and participation.
Relational trust supports collaboration; in schools where principals have established a climate of trust, teachers come together to work towards improving their teaching practices and elevating student outcomes (Cranston, 2011). At the same time, trust is an outcome of collaboration between parties and so is heightened or diminished through daily interactions (Bryk & Schneider, 2002; Forsyth & Adams, 2008; Torres, 2016). Trust, therefore, produces trust; through collaborative work and mutual engagement, faculty members gain trust in their leaders while, at the same time, an environment of trust produces still more collaboration. Thus, the existence of relational trust between all participants in the educational process – teachers,
students, leaders, and parents – is critical to the success of that process (Bryk & Schneider, 2002; 2003).

Organizational leadership theory. Organizational leadership theory, a framework for trust development in a school setting, was developed by Hoy and Tschannen-Moran in 1999 and is based on Mayer et al.’s (1995) model of organizational trust (Forsyth & Adams, 2008). Organizational leadership theory proposes that school leadership has interpersonal and instructional foci that shape the collegial and instructional sides of that leadership, respectively (Tschannen-Moran & Gareis, 2015). Collegial leaders focus on interpersonal relationships, value the opinions and expertise of others, whereas instructional leaders are concerned primarily with aligning instruction with current standards, improving teaching strategies, and proper teacher evaluations (Tschannen-Moran & Gareis, 2015). Organizational leadership theory claims that school faculty whose leaders combine both leadership qualities/roles noted above are more likely to trust their leaders (Tschannen-Moran & Gareis, 2015).

According to Tschannen-Moran and Hoy (1998), trust is one’s willingness to be vulnerable to another based on one’s confidence in the other’s benevolence, honesty, openness, reliability, and competence – the five facets of trust that people rely on when making trust judgments (Tschannen-Moran, 2004). Descriptions of the roles of these facets in the decision to trust are presented below.

Benevolence is one’s belief that the other party will not harm one’s well-being or something one cares about. In the absence of benevolence, one invests energy in calculating ways to protect themselves in case of betrayal (Hallam et al., 2014; Tschannen-Moran, 2004). Honesty is a combination of integrity, character, and authenticity. Integrity provides a trustor
with confidence that the words and deeds of the trustee will match. Trust is unlikely to develop if a potential trustee’s words cannot be relied upon and do not accurately predict future actions. In fact, according to Tschannen-Moran and Hoy (1998), dishonest behavior can be more damaging to trust than lapses in any other facet. Openness can be described as information sharing, the reliance on others to perform certain tasks or make certain decisions, and as influencing others to initiate change. By being open, one party makes themself vulnerable, an act that leads that party to expect the same from the other. Thus, openness of a principal can lead to greater teacher trust by contributing to a sense of accountability and promoting a greater spirit of professional community (Tschannen-Moran & Hoy, 1998).

Reliability is a sense of predictability and caring. A person can be considered reliable or dependable if they act in the way that they are expected to act, provided this expectation is positive rather than negative. Finally, school leaders can express competence by setting an example characterized by hard work aimed at performing a task, attaining goals, handling difficult situations, being flexible, engaging in problem solving, and resolving conflicts.

Unlike relational trust theory, not all the facets discussed above carry equal weights in determining trust of another. Some facets may be more critical than others, depending on the maturity of the relationship between the potential trustor and trustee, changes in the status of one party with respect to the other (promotion, moving, etc.), or the type of task being performed (a principal may be very reliable in performing managerial duties but less reliable with respect to information sharing) (Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998).

According to Tschannen-Moran (2004) and Tschannen-Moran and Hoy (1998), schools as organizations involve three parties: teachers, leadership team, and students and parents (i.e.,
“clients”). Trust between faculty and the school administration – the primary concern of this study – initiates at the original contact of the two parties and is sustained until one party is proved to not be trustworthy (Tschannen-Moran, 2004). According to Tschannen-Moran (2004), in the beginning of any relationship people tend to trust one another simply because trust is easier than distrust; distrust requires more energy because it involves planning ways to avert anticipated harm.

At the start of a professional relationship, when benevolence, honesty, and openness have not yet been fully established, various aspects of the situation can lead a new coming employee to initially trust the school principal: the mechanisms involved in the hiring process, certifications possessed by the employer, the employer’s reputation, and the degree to which the two parties share such fundamental values as loyalty, fairness, and helpfulness. If breach of trust does not occur, trust then progresses to the next level, and the relationship becomes increasingly stable (Tschannen-Moran, 2014). In some cases, when no information about the employer’s reputation, credentials, or fundamental values is available, the level of trust is determined by the disposition or propensity to trust, where this disposition or propensity comes from one’s upbringing (Yamagishi, 2011).

Having such a tendency to trust can exert an overall positive effect on trustor’s well-being (Tschannen-Moran, 2004). Those with this disposition are generally more popular and are viewed as more trustworthy, better friends, and less likely to cheat or steal than those lacking it (Tschannen-Moran, 2004). People with a disposition to trust are not necessarily naïve nor do they trust others blindly; rather, they are able to quickly evaluate available information and others’ behaviors to make trust judgments (Tschannen-Moran, 2004).
Table 1 provides a summary of the four theories discussed in the section above.

**Trust in Schools**

The process of trust development varies depending on the type of interactions the parties exchange; family members’ trust in each other is formed very differently from that between two coworkers or an employee and a leader (Tschannen-Moran, 2004). Some scholars also suggest that trust development varies by context (Dirks & Ferin, 2001; Dirks & Skarlicki, 2004; Mollering, 2006; Schoorman, Mayer & Davis, 2007; Torres, 2011); members of smaller organizations tend exhibit more trust in one another and their leaders than employees of large institutions (Bryk & Schneider, 2002; 2003); corporate employee trust in leaders develops differently from that of employees of non-profit organizations (Bryk & Schnedier, 2002). Thus, context forms an “integral component of … [any] intelligent activity” (Spillane, Halverson & Diamond, 2004, p.8). However, many authors, including Jenkins (2006) for example, suggest that comparing contexts is rarely possible. Whether a context is conducive or detrimental to the development of trust may be due in part to external variables, as trust does not occur in a vacuum (Fulmer & Gelfand, 2012). For instance, smaller systems are frequently nested within larger, more complex systems (Capra, 2005, as referenced in Kemmis et al., 2012). Employees are affiliated with specific departments and departments with larger organizations, and organizations operate in cooperation or competition with other organizations within specific cultural contexts. These contexts are developed by people, as they use their ancestors’ tools (literacy, number systems, artifacts, etc.), including organizational ones (computer systems, forms, discourse), and individuals expand these contexts by interacting with other cultures (Rogoff, 2003).
### Summary of Trust Theories

<table>
<thead>
<tr>
<th>Categories</th>
<th>Social exchange theory</th>
<th>Emancipation theory of trust</th>
<th>Relational trust</th>
<th>Organizational leadership theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers</td>
<td>e.g., Emerson (1976); Blau (1964)</td>
<td>e.g., Yamagishi et al. (1998)</td>
<td>e.g., Bryk &amp; Schnedier (2004)</td>
<td>e.g., Tschannen-Moran &amp; Hoy (1998)</td>
</tr>
<tr>
<td>Specific to a particular organization?</td>
<td>No</td>
<td>No</td>
<td>Schools</td>
<td>Schools</td>
</tr>
<tr>
<td>Main assumption</td>
<td>Social exchanges are based on reciprocity: ideally, what one party puts into the relationship, the other party mirrors in return.</td>
<td>Trust must be present in the beginning of the relationship: one party does something for the other party and expects something in return without such return being guaranteed</td>
<td>Relational trust consists of four assets that parties use to analyze behavior of others: respect, personal regard, competence, and personal integrity</td>
<td>When making trust judgements, people rely on five facets (benevolence, honesty, openness, reliability, and competence)</td>
</tr>
<tr>
<td>Reasons to begin relationship</td>
<td>Analysis of how others’ actions advance one's own interests and self-esteem</td>
<td>Necessity of communicating with a particular partner</td>
<td>Working together</td>
<td>Working together</td>
</tr>
<tr>
<td>Initial trust</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Trust triggers</td>
<td>Mutually-beneficial social exchanges</td>
<td>Uncertainty, risk-taking</td>
<td>Interactions</td>
<td>Trust is easier than distrust; Interactions; information available before the original contact (credentials, reputation, basic fundamental values); propensity, upbringing, same social group</td>
</tr>
<tr>
<td>Trust development</td>
<td>Trust develops when both parties perceive social exchanges as mutually beneficial</td>
<td>Decrease of social uncertainty, increase in predictability</td>
<td>Trust develops around group norms of safety and risk-taking</td>
<td>Relationship becomes more trusting until one party is proved not to be trustworthy</td>
</tr>
<tr>
<td>Developed relationship</td>
<td>Trusting, loyal, committed</td>
<td>Trust is replaced with commitment and assurance</td>
<td>Collaborative, trusting.</td>
<td>Stable relationship</td>
</tr>
<tr>
<td>Breach of trust</td>
<td>Absence of fair return produces anger and dissatisfaction, which people vent through distrust and hatred behaviors against those they perceive as having caused it</td>
<td>N/A</td>
<td>Trust can be violated if expectations and actions are not synchronized</td>
<td>One party trusts another until proved to be untrustworthy; breach of trust can occur along any of the five facets</td>
</tr>
</tbody>
</table>

Cultures differ from one another. For example, to be successful or be viewed as intelligent in one community does not mean that one will be successful or be viewed as intelligent in another (Rogoff, 2003); “a person from New York City may hold assumptions
altogether different from those of a person raised in the rural South as to what is considered to be polite or acceptable ways of interacting with one another” (Tschannen-Moran, 2004, p.162). Thus, one should exercise caution in making comparisons between different cultures; for instance, trust would likely not develop in the same manner in communist and capitalist societies (Rousseau et al., 1998), in societies where the gap between rich and poor is large (Fink, 2014), in contexts where racial and cultural backgrounds of leaders differ from those of followers (Bass & Stogdill, 1990; Shouppe & Pate, 2010), or in countries that belong to different cultural clusters (Bass & Stogdill, 1990). Many cultures are simply more trusting than others (Gheoughiu, Vignolos, & Smith, 2009; Lewicki, et al., 2006; Ortiz-Ospina & Roser, 2016; Yamagishi et al., 1998).

Culture, however, is not necessarily a trait of a specific tribe, country, or society (Rogoff, 2003). Any organization has its own policies, norms, guidelines, principles, and beliefs that differentiate it from others, that form its culture, and that define how employees interact with each other and with external parties (Boonstra, 2013; Burke, 2014). Different organizational settings prompt different patterns of trust development. Bryk and Schneider (2002) propose that, in religious organizations, where authority is not questioned, members believe in the rightness of the system, and everyone acts with the best of the community in mind; here, trust takes on an “organic” form. In commercial settings, on the other hand, outcomes are clearly defined, relationships are guided by a contract, and inappropriate behavior is penalized. In this context, trust takes on a “contractual” form. Thus, it should not be assumed that trust is formed, maintained, and produces similar outcomes in the same way in a factory, lab, sports team, or school (e.g., Fulmer & Gelfand, 2012). Some research suggests that trust levels can even differ at
different school levels (Ladd, 2011; Leis & Rimm-Kaufman, 2016) or at different campuses of the same school (Adams, 2010).

Within an organization, specific groups can also have their own cultures. Some scholars suggest that trust in a trustor’s own group members – “the in-group trust” – is often higher than that in those who do not belong to the same group – “the out-of-group trust” (Bryk & Schneider, 2002; Tschannen-Moran, 2004; Van Maeled et al., 2014). Based on leader-member exchange theory (LMX, Northouse, 2011), for example, leaders and their “in-group” subordinates form unique relationships that are marked by mutual trust, respect, liking, reciprocal influence, and show of personal regard, whereas relationships with out-group subordinates are kept formal and based strictly on job description (Northouse, 2011). Leaders place their subordinates in one of these two categories based on how well they work with the leader and how well the leader works with them (Northouse, 2011). Common among in-group subordinates is a readiness to take an extra step to get the job done, with leaders providing more information and support in return (Graen & Uhl-Bien, 1995). Out-group members, even when receiving formal support from a leader, do not exceed contract-prescribed responsibilities (Northouse, 2011). The idea of considering those who do not belong to one’s social group to be less trustworthy comes from ethnocentrism – judging other cultures based on one’s own culture’s way of doing things (Rogoff, 2003). Trust in your “own” group members, according to some research, increases with time: through repeated social exchanges, interdependencies between parties increase, and individuals belonging to the same group characterize themselves as “we” and “us,” instead of “I” and “me,” thereby increasing the level of trust (Forsyth & Adams, 2008; Rousseau et al., 1998).
Based on the theories of group trust, trust between two teachers, for example, is more easily established than trust between a teacher and an administrator – the primary concern of this study.

Much research on trust in organizations has been published, and yet to my knowledge, only two groups of researchers have studied trust in the context of educational institutions (i.e., Bryk & Schnedier, 2002; Tschannen-Moran, 2004), specifically in a K-12 setting. To my knowledge, no empirical studies on trust in higher education in general or specifically on faculty trust in their direct supervisors have been conducted.

Teacher trust in leaders, however, has multiple positive impacts. It serves to decrease teacher turnover (Torres, 2016) as it promotes a safe collaborative work environment wherein teachers are motivated to grow professionally (Bryk & Schneider, 2003; Cranston, 2011; Edwards-Groves et al., 2016; Tschannen-Moran & Gariels, 2015). Faculty trust in leadership is thus an essential element of successful schools (Sutherland & Yoshida, 2015). It allows teachers to channel their efforts entirely into achieving the school’s mission, instructional development, and classroom innovation, all of which positively affect student engagement and learning, without fearing possible negative consequences for their actions (Bryk & Schneider, 2002; Tschannen-Moran, 2014; Van Maeled et al., 2014).

Schools are complex social systems (Bryk & Schneider, 2002; Leis & Rimm-Kaufman, 2016), wherein different groups, including faculty, administration, and students, co-exist. They are unique organizations with differing professional and bureaucratic combinations, where the needs of clients are addressed through a reliance on authority for power and control, as well as professional expertise of members (Tschannen-Moran, 2004). Multiple stakeholders belonging to different social and professional groups (Tschannen-Moran, 2004) are unified in achieving the
common goal of educating students, and so any school’s daily social routine involves an “interrelated set of mutual dependencies among all key actors” (Bryk & Schneider, 2002, p. 20), with everything and everyone interacting and depending upon one another (Bryk, 2010).

Schools are also characterized by the complexity of the tasks that are performed inside their walls – tasks without standardized inputs, processes, or outputs including learning, leading, and teaching (Van Maeled et al., 2014). Teaching, for example, is largely influenced by instructors’ values, dispositions, and intellectual traditions, and so requires a knowledge of the school’s curriculum, learning theory, pedagogical skills, and practical wisdom (Edwards-Groves et al., 2016). Leading, which incorporates managerial, political, and instructional roles, requires the ability to recognize and encourage effective instruction and promote conditions for continuous academic improvement of teachers (DiPaola & Hoy, 2008). Finally, learning – the major purpose of any school – is largely affected by such outside factors as student background and motivation and teachers’ capabilities and so cannot be standardized (Van Maeled et al., 2014).

A school’s daily operations can put teachers into multiple “weak situations” (Dirks & Starlicki, 2004) marked by high social uncertainty, wherein teachers have little to no guidance on how to behave and must make decisions “on the spot.” In such circumstances, trust in leadership lends teachers the courage to make decisions without fearing possible negative reactions by their supervisors (Bryk & Schneider, 2002).

Mutual interdependencies between the members of school communities (Bryk & Schnedier, 2002), the complexities of the tasks to be performed (Van Maeled, 2014), multiple “weak situations” (Dirks & Starlicki, 2004), and the presence of asymmetric power structures
(Bryk & Schneider, 2002; Naiber et al., 2015) can create for teachers a sense of vulnerability which trust can ease (Bryk & Schnedier, 2003). In schools with higher levels of faculty trust in principals, community engagement is higher, and academics are taken more seriously, leading in turn to better student achievement (Tschannen-Moran & Gareis, 2015). In schools with low teacher-principal trust levels, communication is constrained; teachers avoid making contact with the principal, do not take the principal’s word seriously, and feel they can be judged by what they say and who they talk to (Hallam, Dulaney, Hite, & Smith, 2014; Tschannen-Moran, 2004).

While this study addressed only trust levels of faculty in their immediate supervisors, it is important to note that trust between all members of a school community is necessary for successful operations of the school (Dirks & Skarlicki, 2004); principals, who operate as “middlemen” between faculty and district administration, must trust and must be trusted by their superiors, and they must also trust their faculty, since teachers are at the forefront of the educational process and affect students directly. Parents must have trust in teachers, principals, and the system in general, since these are who they entrust their child’s education to. Finally, teachers must have trust in students and parents to put their best effort into their education.

Absence of empirical work on trust in higher education combined with the importance of faculty trust in their leaders speak to the significance of this study. The two groups of authors from whom this study took its research framework constructed their models based on relational trust theory and organizational leadership theory as discussed above. Table 2 below provides a summary of the models and uses these models to frame the research study of state college faculty trust in their immediate supervisors.
**Community and state colleges.** Community colleges are American institutions of postsecondary education that are built on four enduring values: “access, community responsiveness, creativity, and focus on student learning” (Boggs, 2011, p. 3). Their history extends back to 1901, the year in which Joliet Community College in Illinois was established as
a junior college and two additional years were added to the high school curriculum (Kasper, 2002; Reed, 2017). Milleron, De Los Santos, and Browning (2003) describe the development of American community colleges in two waves, the first wave occurring when World War II soldiers returned home and needed training to join the workforce and the second wave coinciding with the entrepreneurial expansion of the 1980s and 1990s. American community colleges may have experienced a third wave of growth via the students who came to them during and after the economic downturn of the 2000s; many of these students had been laid off and required new skills to change their careers (Boggs, 2011). Over the first century of their existence, community colleges overcame multiple transitions, and their number grew at a rate faster than that of four-year universities (Kasper, 2002). The American community college model has now been adopted globally by countries hoping to also improve workforce education and lifelong learning there (Boggs, Elsner & Irwin, 2017).

[Community colleges] have now been established in Saudi Arabia, Qatar, Vietnam, Thailand, and the Republic of Georgia. Representatives from the United Kingdom, Australia, New Zealand, and China have sent delegations to the United States to study community colleges. Representatives from U.S. community colleges have been invited to Jordan, the United Arab Emirates, India, South Africa, and Ukraine to explain the American model and how it might be adapted to fit the cultures of other countries. The American Association of Community Colleges has signed cooperative agreements with postsecondary education systems in Canada, the United Kingdom, Australia, Germany, Denmark, and the Netherlands (Boggs et al., 2017, para. 12).

While several other countries have adopted the American community college model, the structures of governance and funding employed by these colleges within the United States, as well as the courses and programs they offer, can differ from state to state (Reed, 2017). Today, the number of community colleges in the US is close to 1100 (Bumphus, 2017). These institutions offer a wide variety of programs ranging from dual enrollment courses and
vocational training and certificates to associate and even baccalaureate degrees (Boggs, 2011; Eddy & Boggs, 2010; Kasper, 2002). Local communities and businesses rely on community colleges because of their affordability and area-targeted workforce training programs (Eddy & Boggs, 2010; Kasper, 2002). Community and state colleges partner with other types of institutions including high schools and four-year universities. Moreover, a large number of high school graduates use community colleges as their first step towards the bachelor’s degree; in turn, community college graduates enroll in bridge-building programs to enter four-year institutions (Adams, 2010; Kasper, 2002).

**Community and state colleges in Florida.** As of the fall 2015 semester, Florida’s 28 community colleges employed 6,156 full-time faculty and 16,309 adjuncts (Florida Department of Education, 2016). In the college selected for this study, full-time faculty report to an academic dean, whereas a faculty chair is the direct supervisor of part-time faculty. According to the Florida Department of Education (2016), out of 843,733 students enrolled in open-access institutions in Florida in the 2012-13 school year, only 115,908 were awarded their degrees three years later, allowing for a 13.7% graduation rate. Our economy, however, needs highly skilled workers capable of reasoning and solving complex tasks and working in teams (Boggs, 2011; Tschannen-Moran, 2004), a need that pushes more and more students towards earning advanced degrees, with many trying to do so in open-access community and state colleges. This choice does not come as a surprise, since community colleges offer lower tuition rates, flexible schedules with classes available at night and on weekends, counseling to unemployed, services for students with disabilities, and often free tutoring that is available on site (Boggs, 2011). Many
of the nation’s practicing teachers, registered nurses, first responders, and technological workers either graduated from or took some classes at community colleges (Boggs, 2011) at one time.

Since Senate Bill 1720 was passed in 2013, colleges of the Florida State System have been under tremendous pressure to accommodate the rising number of underprepared students in college-credit classes and declining number of students in college-preparatory courses. According to this new law, any student who graduated from a Florida public high school in or after 2006, or any student who serves as an active member of the US Armed Forces, is not required to take a placement test when entering an open-access institution and can enroll in a college-level course, even if he or she is not yet ready to meet the academic demands of the course (S.1720). As a result of the passage of this law, the number of students enrolled in developmental education courses declined significantly (non-credit bearing), thus creating tension in college-level classes as some students were unprepared for the material being taught.

Before S.B.1720 passed, 44% of first-time community college students were required to take developmental courses (Cohen & Brawer, 2008, as referenced in Adams, 2010), suggesting that there has been a significant rise in under-prepared students taking credit-bearing state college courses (an issue that also adds to instructors’ workloads and pressures).

In addition to these issues, the student population of community and state colleges is often far from traditional (Adams, 2010; Kasper, 2002; Reed, 2017). About 43% of GED completers enroll into postsecondary courses, most of them choosing open-access institutions such as state or community colleges (Song, 2014). Community college students are often commuters who do not live on campus and thus do not feel as connected to their peers, faculty, and the institution itself (Aldridge, 2014; Comparing on-campus, off-campus, and commuter
students, 2015). Many community and state college students must balance work, school, and family responsibilities, are first-generation college students, or are from the lowest income quartile (Adams, 2010). These students are “less likely than other students to complete a degree or transfer to a baccalaureate program” (Jenkins, 2006, p. 1). Thus, it is not surprising that Adams (2010) referred to community colleges as “institutions of second chances” (p. 5). All these factors have greatly increased the responsibilities of community and state college faculty and leadership teams.

**Trust in Leadership**

In most organizations, individuals have varying levels of power and authority and thus evaluate trust-relevant information differently, analyzing what they owe others and what others owe them (Tschannen-Moran, 2004). Trust between colleagues, trust between direct supervisor and followers, trust between members of an organization and senior management, and employee trust in the organization in general, while interconnected, develop and impact the organization’s stakeholders and organizational outcomes differently (Awan, 2014; Bryk & Schnedier, 2002; Dirks & Skarlicki, 2004; Tschannen-Moran, 2004). With the exception of Yamagishi’s emancipation theory of trust, whose concern is mostly within- and between-group trust, all of the theories presented in Table 1 incorporate a view on trust between leaders and subordinates in their theoretical approaches. Given that investigation of faculty trust in their immediate supervisor is the main purpose of this study, theoretical ideas that discuss trust between leaders and followers in educational institutions are of particular importance.

Many scholars suggest that leadership is one of the most important factors affecting teacher turnover (Ladd, 2011; Tschannen-Moran, 2014; Tschannen-Moran & Gareis, 2015). By
performing their various duties, leaders affect the professional lives of faculty members on a daily basis. In addition to being expected to efficiently, fairly, and effectively manage basic school operations (Bryk & Schneider, 2002, 2003), leaders must supervise and evaluate level of instruction and facilitate faculty professional development (DiPaola & Hoy, 2008). School leaders are expected to identify, allocate, coordinate, and use the social, material, and cultural resources necessary to establish optimal conditions for teaching and learning (Bryk & Schneider, 2002; Gomez, 2014; Spillane, Halverson, & Diamond, 2001). From addressing the basic needs of the teachers (Leis & Rimm-Kaufman, 2016) to “brokering the relationships among [them]...school leadership is there to ensure the cohesiveness and effectiveness of the school” (Cranston, 2011, p. 69). School leaders must appreciate organizational context, make connections with faculty and staff, share their values, and, together with their faculty, co-create a vision for the organization (Bryk & Schneider, 2003; Royer & Latz, 2016).

By promoting social interactions between teachers and themselves and fostering a collaborative work environment through employment of an “open door” policy, transparency, consistency between words and actions, and avoiding hidden agendas, instructional leaders create an environment of trust (Cranston, 2011; Tschannen-Moran & Gareis, 2015). These trusting relationships, in turn, promote teacher improvement and retention and, therefore, better student achievement (Edwards-Groves et al., 2016).

**Community and state college leaders.** Community college leaders of all levels face multiple challenges and perform various duties (Adams, 2010). They must be able to understand and value the mission of community colleges (Boggs, 2011) and address both external and internal pressures “while adopting best practices” (Milleron et al., 2003, p. 84). Based on
validated data, they must be strategic in improving the quality of their institutions and promoting student success; college leaders are expected to create positive environments that support innovation and teamwork. They are also expected to effectively manage conflict and change, possess great communication skills, and demonstrate all the qualities of transformational leaders, all while taking care of their own physical and emotional well-being (Adams, 2010).

This study was concerned with state college faculty trust in their immediate supervisor (for full-time faculty their dean and for part-time faculty a faculty chair). Included in job description of deans employed by the college selected for this study are processing paperwork, attending meetings, addressing student complaints, conducting faculty observations and evaluations, participating in budget development, ensuring equipment maintenance and inventory replenishment, faculty recruitment and retention, strategic planning, to only name a few. Community college deans and faculty chairs must work successfully within the cultures of their institutions and in accordance with the college’s vision, mission, key values, and student demographics; recognize the need for risk-taking and change and be able to achieve faculty buy-in to the necessary initiatives; be able to work with the newest technology and make this technology available to faculty and students; know the structure of the college and understand the role of their department or unit within this structure; initiate and organize professional development for faculty and staff to eliminate any existing skill gaps; and know the budget of their unit and be able to use the funds in the best possible way to ensure student success (Adams, 2010; Awan, 2014). With unique and changing student demographics, high reliance on part-time faculty, state funding cuts, and ever-changing requirements associated with accreditation and accountability from their respective states, communities, and area businesses, the position of
leader in a community college setting requires personal leadership traits and the set of acquired skills needed to navigate the evolving environments of their institutions (Adams, 2010; Boggs, 2011; Royer & Latz, 2016).

Making student achievement their major focus and faculty professional development a priority, effective instructional leaders create a culture of trust that facilitates cooperation, enhances openness, promotes group cohesiveness, and improves student achievement (DiPaola & Hoy, 2008). Because of the hierarchical nature of relationships within educational organizations, it is the responsibility of the person with greater power (i.e., the dean or faculty chair) to take the initiative to build and sustain trusting relationships (Edwards-Groves et al., 2016; Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998). Leaders earn faculty trust through setting an example of hard work, balancing a strong sense of care and performance expectations, fostering collaborative work, keeping information flow open, resolving conflict through mediation, and sharing control and involving teachers in decision-making (Gomez, 2014; Tschannen-Moran, 2004).

**Shared decision-making.** Schools are organizations with asymmetric power structures (Bryk & Schneider, 2002; Naiber et al., 2015; Edwards-Groves et al., 2016; Tschannen-Moran, 2004; Tschannen-Moran & Hoy, 1998). Those who hold a higher position in the hierarchy often exert relatively more power and control over decision-making (Bass & Stogdill, 1990). Focusing on leadership as a train of an individual positional leader’s, however, is unlikely to generate a full understanding of the practice of school leadership (Spillane et al., 2004). In addition, attention needs to be paid to the leader-follower tandem and the dynamics of their working relationship.
Involving subordinates in decision-making and not doing so have found support among researchers (e.g., Bass & Stogdill, 1990). In the “turbulent” environments of schools (Bryk & Schneider, 2002), “rather than relying on coterie of subordinates to await their marching orders from detached bosses, organizations need to empower anyone who is capable and who has the willingness to assume leadership” (Raelin, 2006, p.152). Decentralized decision-making has the potential to increase teachers’ job satisfaction, loyalty, and acceptance of decisions and to justify teachers taking risks and throwing their full effort into implementation of initiatives (Bryk & Schneider, 2002; Tschannen-Moran, 2004). Shared decision-making has also been found to increase employee organizational commitment, confidence, understanding, and productivity (Bass & Stogdill, 1990). Participating in planning initiatives and helping the leader guide their decision-making provides faculty with information that allows them to make educated judgments concerning the initiatives as well as their impact on faculty work, status, and relationship with the organization (Bass & Stodgill, 1990). If people are invested in decision-making, they tend to also be more invested in the school (Gomez, 2014; Leis & Rimm-Kaufman, 2016) and are thus more open to participating in collaborative exchanges that establish relational values (Rower & Latz, 2016).

Despite its many supporters, the practice of shared decision-making can also be challenging to the parties involved. It requires members of the school community that have no formal power to be informed concerning school issues and invests them with responsibilities they would not normally have in a leader-centered environment. It also requires those in a position of power to build an environment where relationships are as important as tasks, cooperation is more important than competition, and sharing is more important than controlling
(Fusarelli, Kowalski & Peterson, 2011). Additionally, inviting team members to participate in decision-making may slow the process of determining the course of action (Bhatti, Mailto, Shaikh, Hashmi, & Shaikh, 2012; Wallach, Lambert, Copland & Lowry, 2005). Finally, when followers involved in decision-making have agendas different from those of the official leaders, school success can be in danger; thus, distribution of leadership must be undertaken carefully to avoid distribution of incompetence (Timperley, 2005). If members of the school community, however, can overcome these obstacles and create a healthy environment for shared decision-making, the school will likely improve in multiple ways, becoming more stable, open, participatory, inclusive, and high-performing (Fusarelli et al., 2011). In such a situation, teachers will choose to give more than the minimal requirement to do their job, be more satisfied with their jobs, and have higher morale and organizational commitment (Bhatti et al., 2012; Naicker & Mestry, 2013). Shared decision-making has the potential to improve student achievement (Timperley, 2005) and raise the level of faculty trust in each other and their principal (Tschannen-Moran, 2004).

Faculty participation in planning and decision-making may be associated with participative leadership (e.g., Bass & Stogdill, 1990), democratic leadership (Bass & Stogdill, 1990; Bhatti et al., 2012), collaborative leadership (e.g., Raelin, 2006), and distributed leadership (e.g., Adiguzelli, Spillane et al., 2001; 2004; Spillane, 2005).

Collaborative leaders give those who have a stake in a venture every chance to participate in its planning and implementing, thereby guaranteeing participants’ commitment (Raelin, 2006). Collaborative leaders tend to be compassionate; they allow others to lead and accept the fact that there may be more than one leader at the same time. Thus, they must be
open-minded, believing strongly that there is no higher value than democratic participation (Raelin, 2006).

*Democratic leaders*, while making the final decisions themselves, invite other members of the team to contribute to the decision-making process (Bhatti et al., 2012). They are known for being follower oriented, trusting, and open to compromise (Bass & Stogdill, 1990).

*Participative leaders*, through equalization of power, share final decision-making with subordinates while remaining active members among equals. They listen carefully and actively, gain acceptance by engaging their colleagues in making decisions and planning for future initiatives (Bass & Stogdill, 1990).

*Distributed leadership* views leadership activity as constructed in the interaction between leaders, followers, and the material and symbolic artifacts in each situation, with authority based on expertise rather than a formal position (Wallach et al., 2005). Thus, leadership tasks are performed by multiple interdependent formal and informal leaders (Spillane, 2005; Spillane et al., 2004). Interdependencies between these leaders occur when they work together to reach a common goal, when they work separately to reach a common goal, or when the practice or knowledge of one enables the practice of another (Spillane et al., 2004). In organizations that employ distributed leadership, authority is based on expertise rather than formal position (Spillane, 2005).

While the four above-mentioned approaches to leadership style are not interchangeable (Spillane, 2005; Tshabangu, 2013), the common characteristic all share is the leader’s sharing decision-making with followers. With implementation of shared decision-making, levels of faculty trust in their principals tends to increase (Bhatti et al., 2012; Tschannen-Moran, 2004).
On the other hand, trust is considered a premise for shared decision-making (MacBeath, 2005). Unless an educational leader trusts the faculty, they will never share power or grant autonomy to them. Like the collaborative environments described within relational trust theory, shared decision-making creates the environment where trust produces trust; if a leader trusts their teachers, they share power, decision-making, and vision creation, resulting in increased faculty trust in them.

**Antecedents of Trust**

In addition to the conditions described by the models of Tschannen-Moran and Hoy and Bryk and Schneider (see Table 2), several other factors can impact trust development. The following section details these with a summary presented in Table 3.

According to Nienaber et al.’s (2015) meta-analysis of empirical work on subordinates’ trust in supervisors in a business setting, all antecedents of trust discovered to date can be divided into four categories: supervisor attributes, subordinate attributes, interpersonal processes between supervisors and subordinates, and organizational characteristics. The authors’ meta-analysis was conducted in 2015 and included articles published between 1995 and 2011. In addition to seven years passing since 2011, Nienaber et al.’s analysis was limited to a corporate setting and did not include other contexts such schools, and differences in context could lead to different results (e.g., Dirks & Ferrin, 2001; Bryk & Schneider, 2002; Jenkins, 2006). I employed their meta-analysis as a foundation to structure the following sections of this chapter, i.e., supervisor attributes, subordinate attributes, interpersonal processes between supervisors and subordinates, and organizational characteristics.
**Supervisor attributes.** People and groups within an organization must depend upon each other to achieve their professional, and their personal, goals (Yamagishi, 2011), as well as the goals of the organization (Cranston, 2011; Rousseau et al., 1998; Tschannen-Moran & Hoy, 1998). While interdependencies between parties imply that both are responsible for building a climate of trust, the responsibility for creating a trusting environment within an organization is most often seen as the leader’s (Cranston, 2011; Hallam et al., 2014; Kemmis et al., 2012; Ladd, 2011). In order to build trusting relationships with subordinates and create an environment of trust, leaders are expected to act in a trustworthy manner (Dirsk & Starlicki, 2004; Nainaber et al., 2015; Tashcannen-Moran, 2015; Van Maeled et al., 2014; Yamagishi, 2011). A leader can create a climate of trust by demonstrating passion, dedication, and commitment to the profession, being patient with subordinates, and giving them adequate and timely feedback (e.g., Edwards-Groves et al., 2016; Nainaber et al., 2015). Leaders can also prove their trustworthiness by reliably completing their assigned duties as managers with competence (e.g., Edwards-Groves et al., 2016), by being predictable, open, benevolent, and honest (e.g., Van Maeled et al., 2014), by being consistent (e.g., Bryk & Schneider, 2002; Cranston, 2011), and by taking responsibility for their words and actions without abusing authority (e.g., Tschannen-Moran, 2014). Moreover, supervisors must have explicit expectations that are synchronized with obligations (e.g., Torres, 2016), be supportive (e.g., Fulmer & Gelfard), provide intellectual stimulation and coaching (e.g., Bryk & Schneider, 2002), and ensure that their actions are consistent with organizational values (Nainaber et al., 2015). School leaders in particular are expected to be task-oriented, promote teacher professionalism, and community engagement (Tschannen-Moran & Gariels, 2015). Trust is easier to build if school leaders possess good communication skills (Sutherland &
Yoshida, 2015) and present themselves as part of the group that also includes faculty members rather than a supervisor holding a position of authority (Edwards-Groves et al., 2016). Being part of the group allows supervisors to create a space for open discussion and creativity (Edwards-Groves et al., 2016), to encourage continuous dialogue between all members of the school community (Fulmer & Gelfard, 2012; Tschannen-Moran, 2014), and to learn its culture so as to take appropriate steps to build trust.

According to the findings of some research, certain leadership styles can affect trust levels both positively and negatively (e.g., Hakan & Jamel, 2013). Authentic leaders, for example, who promote openness in every aspect of intraorganizational relations, are more likely to be trusted by their followers (e.g., Bass & Stodgill, 1990; Tschannen-Moran & Gareis, 2015). Empathetic leaders, who are characterized by their abilities to understand and care for their followers, are also more capable of building an environment of trust (e.g., Tschannen-Moran, 2014). Transformational leadership – the approach to leading that changes and transforms people by creating connections that serve to motivate them and help them achieve more than they normally would (Northouse, 2011) – has been found to be a constituent of the trusting environment (e.g., Dirks & Starlicki, 2004). In contrast, in organizations that employ a transactional leadership approach and whose main attribute is exchange (e.g., a promotion as a reward for good work, an appropriate grade for completing an assignment, no tax increase for a vote, etc.), trust is often contingent upon rewards and punishments (Fulmer & Gelfard, 2012; Nainaber, 2015; Northouse, 2011). Finally, as mentioned earlier, subordinates are more likely to trust leaders that employ participative, distributed, democratic, or shared leadership approaches, where one of the main aspects is participative decision-making (e.g., Bryk & Schneider, 2002).
Subordinate attributes. Trust begins to develop with the beginning of each new relationship, following initial contact, unless a breach or a violation occurs (e.g., Tschannen-Moran, 2004). While most people tend to trust others in new relationships, including followers trusting their supervisors, some people’s propensity to trust is higher (e.g., Bryk & Schneider, 2002). “Individuals often determine their approaches to particular situations with reference to cultural practices in which they previously participated” (Rogoff, 2003, p. 258), and the propensity or disposition of followers to trust is often determined by those cultural practices (e.g., one’s upbringing) (Dirks & Starlicki, 2004). Level of trust in a previous supervisor can also influence propensity to trust a current one (e.g., Bryk & Schneider, 2002). Some research further suggests that subordinates tend to trust their leader more easily if they share the same or similar demographics and have similar perspectives about organization’s key values (e.g., Bryk & Schneider, 2002).

Interpersonal processes between supervisors and subordinates. Once the initial contact is made and further interactions begin to occur, the process of trust development is dependent on how often the parties interact (e.g., Bryk & Schneider, 2003), the diversity of experiences they encounter (e.g., Cranston, 2011), and the length of the relationship (e.g., Hakan & Jamel, 2013). Additionally, if both the supervisor and the supervisee have positive expectations of one another, a trusting relationship is likely to develop (e.g., Lewicki et al., 2006).

According to the findings of some studies, trust development depends on its initial level (Nainaber et al., 2015; Yamagishi, 2011). If initial trust is low, it can, depending on the parties’ actions, improve or diminish over time (e.g., Lewicki et al., 2006).
**Organizational characteristics.** Among the factors listed above, developing a trusting relationship requires a positive organizational climate, where ethical norms are shared and respected by all (e.g., Van Maeled, 2014). Employees are more trusting in their leaders if they choose their places of employment instead of being forced to work there due to a transfer, if their employment is secure, and if profits are shared (Fulmer & Gelfard, 2012). Trust is higher in smaller organizations than in larger ones and in schools that perform better than in those that have a history of poor performance and lower trust levels in previous supervisors (Bryk & Schneider, 2002).

Table 3 below summarizes the factors discussed in this section.

Table 3.

Summary of Factors Impacting Trust in Organizations

<table>
<thead>
<tr>
<th>Supervisor attributes</th>
<th>Subordinate attributes</th>
<th>Interpersonal processes</th>
<th>Organizational factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>benevolence</td>
<td>level of propensity to trust</td>
<td>sharing of control</td>
<td>positive organizational climate with ethical norms that are shared and respected among all organizational members</td>
</tr>
<tr>
<td>ability or competence</td>
<td>perceptions of structural certainty</td>
<td>open communication and information flow</td>
<td>psychological safety within work groups</td>
</tr>
<tr>
<td>integrity</td>
<td>risk tolerance or willingness to risk</td>
<td>intellectual support and encouragement</td>
<td>perceived organizational support</td>
</tr>
<tr>
<td>vulnerability</td>
<td>high levels of commitment</td>
<td>degree of similarity</td>
<td>workplace conditions</td>
</tr>
<tr>
<td>respect for followers</td>
<td></td>
<td>- demographic similarity in the beginning of relationships (reputation, race, gender, age, religion and upbringing)</td>
<td>technology, workflows, fair execution and implementation of HR policies, school size</td>
</tr>
<tr>
<td>transparency</td>
<td></td>
<td>- sharing the same perspective in established relationships</td>
<td>trust in previous supervisor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>transformational leadership style</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>participative decision-making</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>frequent interactions between followers and leaders</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>initial trust</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3: Methodology

This chapter summarizes the methodology employed in the study and includes sections dedicated to the following decisions regarding the conduct of the study: research design; study population, site, and sample; sampling procedures; instrumentation; response rate; data collection procedures; and data analysis. As a quantitative study, it employed a non-experimental cross-sectional research design. I used a newly created survey instrument based on two existing ones created by Bryk and Schneider (2002) and Tschannen-Moran and Hoy (1998). Several questions were also added to the survey based on a review of the relevant literature.

This study was intended to serve as a first step in understanding how the formation of state college faculty trust in immediate supervisors occurs. It tested the conceptual framework model presented in chapter 2 (Figure 1). Thus, independent variables were interaction type, interaction frequency (eight survey items), and demographic characteristics of faculty and of supervisors (eight survey items). Trust of faculty in supervisor (22 survey items) was the observed variable. After a pilot study that suggested no modifications to the survey instrument, data were collected from 134 full- and part-time faculty of a selected state college. Some incomplete responses were dropped with 115 responses retained for the analysis. Factor analysis on both observed and independent variables identified nine explanatory constructs from among 16 survey questions and four response constructs from among 22 survey questions. After factor analysis, I performed path analysis using the proposed model having nine independent variables, four observed variables, and 36 paths; and a reduced model having nine independent variables,
three observed variables, and 11 paths. The AIC (Akaike Information Criterion) was employed to compare the two models’ goodness-of-fit.

**Research Design**

This study employed a quantitative research methodology with a non-experimental research design to investigate the interrelationships between faculty trust in supervisors – the output – and frequency and types of interactions between supervisors and faculty (Creswell, 2014). It also examined how various characteristics of faculty, of their supervisors, and of their departments impact their level of trust. A one-time online-based faculty survey was used to learn faculty members’ opinions concerning their supervisors that could affect their level of trust in these supervisors. I chose to employ survey research because it is flexible and cheap and enables a quick turnaround (Glatthorn & Joyner, 2005). Moreover, it allows for comparability of answers since the questions asked are standard (Muijs, 2011). Despite its many pros, survey research also has some disadvantages. While some conclusions about causality can be made, surveys are not as predictive of causality as experimental designs and do not allow for deeper understanding of issues due to standard questions and minimum open-response options (Afsar & Saeed, 2011; Fowler, 2002).

**Population, Site, and Sample**

The population for this study was 388 full-time and 787 part-time faculty employed by the selected state college located in northeast Florida (Florida Department of Education, 2016) and totaled 1175 faculty members. The entire population participated in the study, making the sampling procedure for this study a census sampling (Muijs, 2011). The college selected for the study, serves students of various demographics, has multiple locations including campuses and
centers in rural, urban, and suburban areas, and offers courses online. Despite these facts, this study population is, of course, not representative of the entire population of faculty employed by community and state colleges in the State of Florida and additional research would be necessary to establish the applicability of this study’s methodology and the generalizability of its results to other colleges in Florida and nation-wide. This study constitutes a first step in exploring the phenomenon of faculty trust in supervisors employed by community and state colleges in the entire state and nationwide. Making the study of faculty trust in their leaders particularly germane to the college selected as the site of this study was that it recently underwent a large organizational reorganization, meaning that the deans and faculty chairs in newly created departments were in the process of earning their faculty members’ trust during the study. Conducting the study in the selected site and at this time therefore appeared helpful.

The college selected for the study is located in the northeast part of the state of Florida and operates in six different locations in two adjacent counties of Florida. The college also offers a large number of classes online, and, in total, its different programs and courses attract over 50,000 students from over 140 countries annually. As of the fall 2013 semester, just under 50 percent of students enrolled in this college were Caucasian, 26 percent were African-American, 6.5 percent were Hispanic, over 3 percent were Asian, and around 14 percent were of other and non-reported ethnicities (Crosby et al., 2014). These percentages are comparable to nationwide data: Boggs (2011), Jenkins (2006), and Kasper (2002) report that about 50 percent of students attending community and state colleges in the United States belong to minority ethnicities. The state college selected for this study reports the average age of its students to be 28 years old in contrast to 23 years old, the average student age at a local four-year university. It employs about
400 full-time and about 800 part-time faculty with 21 percent of them holding doctoral, 55 percent master’s, and 24 percent bachelor’s degrees (Crosby et al., 2014).

I surveyed faculty of the selected college to explore the levels of trust they have in their academic deans and faculty chairs. Specifically, I sought to determine the frequency and types of interactions between these faculty and their immediate supervisors, as such measures were assumed to be related to increased levels of trust. Additionally, I examined the relationships between trust and faculty, supervisor, and departmental characteristics. Specifically, the study sought to answer the following research questions:

1. What types of professional interactions of supervisors and faculty are related to improved levels of faculty trust?
2. What frequency of interactions between faculty and supervisors is related to improved levels of faculty trust?

**Sampling procedures.** This study used census sampling (i.e., surveying the entire population). Census sampling permits a larger sample to be taken, thereby decreasing sample error (Roberts, 2010) and decreasing both Type I and Type II errors (Muijs, 2011). The minimum sample size was determined to be 10 percent of the population (118 participants).

**Instrumentation**

Based on the study’s conceptual framework and the reviewed literature on trust, I employed a survey instrument which I designed to collect the data. I based this instrument on two instruments used by the two major research clusters on trust in schools and on trust antecedents drawn from the published literature. These two instruments were Bryk and Schneider’s Rasch Scale of Teacher-Principal Trust (2002) and Tshcannen-Moran and Hoy’s
Faculty Trust Survey (1998), both of which were designed to elicit information from faculty of public schools about their perceptions of the principals over them in the school hierarchy – i.e., their immediate supervisors. Since the purpose of this study was to determine the frequency and types of interactions between state college faculty and faculty members’ immediate supervisors that are related to higher levels of faculty trust, using some parts of these two existing surveys was appropriate. Below are the descriptions of the two instruments with examples of items they contain. The full set of items contained in both the Rasch Scale of Teacher-Principal Trust and the Faculty Trust Survey before modification is presented in Appendix A. In the following sections, I discuss all modifications I made to these instruments.

**Rasch Scale of Teacher-Principal Trust.** The Rasch Scale of Teacher-Principal Trust is one of three parts of a larger instrument employed by Bryk and Schneider in a study on the Chicago Public Schools. The other two parts were created to investigate faculty trust in each other and faculty trust in parents. The authors reported the original instrument’s reliability as being .92 (Bryk & Schneider, 2002). Here, respect, personal regard, competence, personal integrity, and readiness to show vulnerability served as the salient constructs used to measure the observed concept of faculty trust in their principals. The scales used in the instrument were a four-point Likert-type scale with possible responses ranging from 1 = “Strongly disagree” or “Not at all” to 4 = “Strongly agree” or “To a great extent,” depending on the question type. The following is an example of an item from the Rasch Scale of Teacher-Principal Trust: “It's OK in this school to discuss feelings, worries, and frustrations with the principal.” I list the rest of the questions before my modifications in Appendix A. The changes I made to this instrument are discussed further in this section.
Faculty trust survey by Tschannen-Moran and Hoy. The faculty trust survey is part of the instrument used in a study on school trust conducted by Tschannen-Moran and Hoy. This part contains questions about faculty trust in the principal, other teachers, and “clients,” i.e., students and parents. The salient constructs were benevolence, honesty, openness, reliability, and competence, and these were used to measure the observed variable of faculty trust in their principals, parents, students, and colleagues. Similar to the Rasch Scale of Teacher-Principal Trust, this instrument also had two additional parts, which includes trust questions posed to principal and “clients.” In designing the new instrument, I used questions only about teacher trust in principals. The previous reliability of each of the three original scales is reported as being between .9 and .98 (Tschunnen-Moran, 2004). The rating scale used in this instrument is a six-point Likert-type scale with possible answers ranging from 1 = “Strongly disagree” to 6 = “Strongly agree.” The following is an example of an item from the original scale: “The teachers in this school have faith in the integrity of the principal.” Along with items from the Rasch Scale of Teacher-Principal Trust, I list the remaining items from the Tschannen-Moran and Hoy scale in Appendix A.

In addition to such trustee characteristics as respect and competency, both groups of researchers mention both a trustor’s propensity to trust and frequency of interactions as possible factors affecting level of trust between faculty and supervisors. These authors, however, do not mention a specific frequency of interactions that are related to improved levels of trust. I collected data about propensity to trust using items from Mayer et al. (1995) and Mayer and Davis (1999), which were derived from Rotter’s (1967) original trust scale. Items were anchored by 1 = “strongly disagree” and 5 = “strongly agree” ($\alpha = .72$). I, however, changed the scale to 1
to 100 digital scale to better capture participants’ opinions. An example of propensity item is “Most people can be counted on to do what they say they will do.” Mayer and Davis (1999) suggest six items to measure one’s propensity to trust, but, to ensure that the items were not off-topic and better fit the new instrument, I did not incorporate three of these six items in my instrument.

**Original item modifications.** To create the new questionnaire, I changed the wording of some questions employed in the other researchers’ survey instruments to better fit the nature of my study. The word “principal” was substituted for “supervisor”; the word “school” was replaced with the word “college” or “department” as appropriate; the pronouns “he” and “she” were replaced with “he/she”; and the word “Teachers” was replaced with “I”. I also added the “Not applicable” option to each question to avoid participants’ choosing the midpoint of the scale, when they did not feel they had a relevant response. Scales used were changed from the simple 4- and 6-point Likert-type scales employed in the original survey instruments to one ranging from 0 = “Strongly disagree” or “Not at all” to 100 = “Strongly agree” or “To a great extent,” thus providing participants the opportunity to better express their opinions.

Employing my instrument, I then collected data about two independent variables (frequency of interactions and type of interactions) by asking faculty to rate ways their supervisors interact with them using a scale from “0” = “never” to “100” = “several times a week.” Below is the item I used to collect data about two independent variables – frequency of interactions and type of interactions.

“The Please indicate how frequently you interact with your current supervisor through each of the following methods of communication:
a. Email exchanges
b. Hallway chats
c. Faculty meetings
d. One-on-one conferences in mine/supervisor’s office
e. Supervisor observing me teach
f. Me observing supervisor teach
g. Participating in committee meetings together
h. Eating lunch together
i. Other (please specify and rate using the same scale)"

**Literature review-based questions.** According to the reviewed literature, in addition to Bryk and Schneider’s respect, personal regard, competence, and personal integrity and Tschannen-Moran and Hoy’s benevolence, honesty, openness, reliability, competence, propensity to trust, and frequent interactions, the literature discusses several other components of trust. I included only questions involving trust components in my survey instrument that appear in the literature more often than others. These components were shared decision-making, level of initial trust, and trust in the previous supervisor: adding too many variables to the study would increase the length of the instrument and thus decrease the validity of results; a smaller number of inputs also allowed for better visibility of the effect of the variables that were included in the study, since these effects were not divided between multiple variables (Muijs, 2011). Following are the statements that the participants were asked to rate on a scale of 0-100 about shared decision-making (e.g., Tschannen-Moran, 2004):

- My supervisor seeks faculty opinions.
• My supervisor is a sole decision-maker in our department.

The questions below asked about a participant’s trust in his or her previous supervisor and initial trust in the current supervisor:

• Rate the level of trust in your previous supervisor.

• How much trust did you have in your current supervisor when he/she first assumed this role?

Finally, I collected data about the demographic characteristics of faculty and supervisors (based on faculty knowledge). These were added at the end of the survey and not in the beginning, to avoid losing respondents’ interest.

The full instrument is presented in Appendix B. Table 4 provides the alignment between variables and questionnaire items. The trust variable is covered by the first 22 items of the questionnaire. With these 22 questions, I sought information about faculty members’ level of trust in their supervisor. Per the framework created for this study, trust is conceptualized by faculty member’s perceived levels of supervisor respect, personal regard, competency, personal integrity, honesty, openness, benevolence, reliability (items 1-13), faculty member’s propensity to trust (items 14-17), supervisor’s willingness to share decision-making (items 18, 19), faculty member’s trust in previous supervisor (item 21), and perceived initial trust in current supervisor (items 20, 22). Constructs that are more difficult to define, such as personal regard/benevolence, propensity to trust, integrity/honesty, and openness, are measured with more than one item on the new survey so as to increase the reliability of the instrument.
Table 4.

Alignment Between Variables and Questionnaire Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>Questionnaire items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trust</td>
<td>1-13</td>
</tr>
<tr>
<td>2. Propensity to trust</td>
<td>14-17</td>
</tr>
<tr>
<td>3. Shared decision-making</td>
<td>18-19</td>
</tr>
<tr>
<td>4. Trust in previous supervisor</td>
<td>21</td>
</tr>
<tr>
<td>5. Perceived initial trust in current supervisor</td>
<td>20, 22</td>
</tr>
<tr>
<td>6. Interactions</td>
<td>23</td>
</tr>
<tr>
<td>7. Demographic characteristics</td>
<td>24-31</td>
</tr>
</tbody>
</table>

Pilot study. Because the instrument was newly created, I conducted a pilot study prior to using it in the actual study. While the two original instruments’ validity and reliability were reported as satisfactory, since I had modified the wording in both instruments and added new items, the reliability and validity of the new instrument were considered to be unmeasured (Roberts, 2010). Thus, I performed a pilot study to judge the instrument’s validity and reliability. To perform this pilot study, I asked six faculty members of the college where I intended to conduct my study at to respond to questionnaire items before it was sent to the entire study population, and these faculty were then excluded from participating in the study. After having the pilot study participants complete the survey, I asked them to answer questions 1-5 below (Schultz, 2008, as referenced in Roberts, 2010).

1. Overall, how easy was it for you to access the survey and navigate from page to page?
2. Please describe any technical problems that you encountered while attempting to access or navigate from page to page?
3. Were the directions clear and easy to understand? If not, how can they be improved?
4. Were there any typographical errors that you discovered?

5. Please share any other comments or suggestions you may have that would help make this survey more successful.

None of the pilot study participants made any suggestions on improving the survey or reported finding any errors.

**Validity and reliability of the new instrument.** Several steps were taken to ensure the validity and reliability of data collection instrument. Grounding in the literature on trust in schools and asking faculty participating in pilot study for suggestions were both meant to test the content validity of the instrument (Muijs, 2011). Because the pilot study participants did not suggest any corrections to the instrument, I concluded its content validity to be at a satisfactory level.

Construct validity and reliability was developed using factor analysis. Reliability of the instrument is ensured by measuring the underlying constructs with several questions designed to measure that construct. This is specifically advised for constructs that are not as easily defined and measured, e.g., personal regard, benevolence, etc. Muijs (2011) recommends a minimum of 3-4 questions for attitude-related items. Therefore, I performed a factor analysis using Principal Components with no rotation on those items measuring personal regard/benevolence (items 2, 5, 8, 11), integrity/honesty (items 7, 10, 12), openness/shared decision-making (items 4, 18, 19), and propensity to trust (items 14, 15, 16, 17), since these variables are measured using several items from the instrument. Factor analysis is detailed in Table 12. Items 2, 5, 8, and 11 loaded onto one component with 75% of total variance explained and factor loadings; items 7, 10, and 12 loaded onto one component with 79% of total variance explained; items 4, 18, and 19 loaded
onto one component with 62% total variance explained; items 14, 15, 16, and 17 loaded onto one component with 51% total variance explained. I interpreted these results to confirm that the grouped items measure the same concepts within their groups.

Table 5.

*Factor Analyses on Items Measuring the Same Constructs*

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Extraction</th>
<th>Measuring construct</th>
<th>Percent of variance explained</th>
<th>Eigenvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>.825</td>
<td>Personal regard/benevolence</td>
<td>74.53%</td>
<td>2.98</td>
</tr>
<tr>
<td>5</td>
<td>.679</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>.638</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>.766</td>
<td>Integrity/honesty</td>
<td>79.70%</td>
<td>2.39</td>
</tr>
<tr>
<td>10</td>
<td>.750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>.679</td>
<td>Openness/shared decision-making</td>
<td>61.06%</td>
<td>1.83</td>
</tr>
<tr>
<td>18</td>
<td>.734</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>.420</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>.930</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>.509</td>
<td>Propensity to trust</td>
<td>51.66%</td>
<td>1.69</td>
</tr>
<tr>
<td>16</td>
<td>.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>.581</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


I took the following steps to test for criterion validity. First, the literature on trust in schools suggests that trust in an academic leader (principal) can depend on frequency of interactions with faculty. Thus, college faculty members’ trust in their immediate supervisors were measured using 22 “Trust” variables (Survey items 1-22) and, moreover, should also be predicted by the number of interactions the supervisor has with faculty (Survey item 23). With respect to internal consistency, I obtained a Cronbach’s alpha for the 22 trust-related items of .93, thus ensuring that the items have a relatively high internal consistency.
**Response rate.** A goal of 10% response rate was set for this study (Roberts, 2010). The following steps were taken to reach this goal, after receiving approval from UNF IRB and the IRB of the selected state college:

1. I sent an introductory letter to the prospective study participants along with the link to the instrument (Appendix C). The cover letter contained information about the study, its timeframe, and its benefits to the participants and the industry.

2. One week after sending the link, since the 10% response rate had not yet been reached, I sent a follow-up reminder email (Appendix D).

**Data Collection Procedures**

Data collection began immediately after receiving UNF IRB approval and IRB approval of selected state college (May 1, 2018) and was completed in two weeks.

First, the questionnaire (Appendix B) and the cover letter (Appendix C) were sent to all faculty members. The cover letter contained a brief description of the project, its timeline (one-week completion request), and the actual survey link. Respondents were assured that neither their personal identities nor the identity of their school would be released in the dissertation and that all information gathered, including demographic information, was being collected for the purposes of this study only. All faculty received a follow-up email (Appendix D) within a week of sending the original link. Data analysis began two weeks after sending the original email, as the necessary response rate had by then been reached. Data analysis was performed using SPSS (Statistical Package for the Social Sciences) and EQS (Structural Equation Modeling) computer software.
**Data modifications**

Initial inspection of the data reported no outliers but revealed several imperfections, including skipped responses and word responses instead of numeric ones. One of the disadvantages of Qualtrics – the software I used for data collection – is a possibility of some respondents’ confusion between skipping an answer (selecting nothing on the scale) and rating a statement as zero. Because of this property of the software, I decided to retain the responses that had no more than five of the 22 trust-related questions skipped and replace them with zeroes. All answers that had more than five trust-related items skipped or had no demographic answers at all were removed, leaving 115 responses. Numerical responses that were typed using words “three,” “two,” etc., were replaced with numbers. Following are other substitutions of word responses with numbers.

“Originally there were two supervisors but then it was changed to one about 2 years ago” was replaced with “2 years,” “Less than 1” recorded as 1, “4 months” recorded as .33, “3 months” recorded as .25, “10+ years” recorded as 10, “65+” recorded as 65, “50’s” recorded as 50, late 50s recorded as 58, “old” removed, “55+” recorded as 55, “200-300” recorded as 250, “more than 60 full-time” recorded as 60.

Faculty and supervisor demographics including gender and ethnicity were recorded as dummy variables (“1”=male, “0”=female). Since smaller pools of faculty and their supervisors belonged to minority groups, I made a decision to record both faculty and their supervisors’ ethnicity as “1”=Caucasian and “0”=minority, rather than dividing the “minority” group into several subgroups.
Data Analysis

The first step in the data analysis was to provide descriptive statistics for the collected data. Specifically, I calculated means and standard deviations for the continuous variables and category percentages for nominal and ordinal variables.

The second step of my data analysis was to perform exploratory factor analysis on both dependent (22 trust items) and independent (various interactions) variables. According to Fabrigar and Wegener (2012), factor analysis is used to determine the number of distinct constructs assessed by a set of measures. Factor analysis was possible because the data met its assumptions: the data were continuous rather than ordinal or nominal, sample size was large enough and homogenous for both dependent and independent variables.

Factor analysis of dependent variables produced four factor loadings (Trust factors 1, 2, 3, and 4), while factor analysis on the independent variable produced one factor loading (“Interactions”). I used factors obtained from the factor analyses to perform path analysis.

Path analysis investigates direct and indirect causal relations among variables (Dodge, 2003; Schumacker & Lomax, 2010). I assumed that all predictor variables had direct effects on the trust factors, since no mediating variables were included into the analysis. Before performing path analysis, I confirmed that the data met the assumptions of linearity and normality (Lomax, 2001; Tabachnick & Fidell, 2001).

The first step of path analysis was to obtain standardized Beta coefficients (β) describing the effects of inputs – “Interactions” and demographic characteristics, on outputs – Trust factors 1, 2, 3, and 4. Beta’s that had absolute values of .2 or larger were considered significant and were retained in the reduced model. Inputs whose β’s absolute values were less than .1 were not
retained in the reduced model as insignificant and were thus considered non-contributing to the overall model. Inputs whose $\beta$’s absolute values were between .1 and .2 were further assessed based on theoretical and contextual information about the variables. The full and reduced models were then compared based on the AIC (Akaike Information Criterion) values.

Finally, I obtained correlations between all dependent and independent variables in full and reduced models.

**Chapter Summary**

In this chapter, I detailed the methodological procedures that were used to conduct the study. I described its quantitative research methodology with a non-experimental research design and explained why this constituted the best choice of methodology for the study. Additionally, I detailed population, sampling, and research site. Next, the instrumentation section described the two original instruments that I used to create the survey for this research and the modifications I made to them, including the newly added items, based on the literature review and the study research questions. The procedures for conducting the pilot study and the means I used to establish the validity and reliability of the new instrument followed. Finally, a description of the data collection and data analysis procedures concluded the chapter. The next chapter presents the results obtained through the use of these methods.
Chapter 4. Results and Data Analysis

This study examined in detail the relationship between state college faculty trust in immediate supervisors (deans or faculty chairs, whichever was applicable) and types and frequencies of interactions between the faculty and their supervisors. Additionally, it explored the relationship between faculty trust and various demographic characteristics of the faculty, deans/department chairs, and their departments/divisions. The results of path analysis showed that frequent interactions, supervisor ethnicity, supervisor age, and the number of people in the department had statistically significant impacts on the level of faculty current trust; faculty age, supervisor age, and the number of people in a department/division a faculty member belongs to had statistically significant impacts on the level of faculty propensity to trust; the number of years a faculty and a supervisor worked together, faculty ethnicity, faculty gender, and supervisor’s gender had statistically significant impact on the level of faculty initial trust.

Study questions

The trust survey consisting of 31 questions was administered to instructional faculty of one state college in northeast Florida (total population of just under 1200 faculty) with the goal to receive 118 responses (10%). The survey aimed to address the following research questions:

1. What types of professional interactions of faculty supervisors and faculty are related to improved levels of faculty trust?

2. What frequency of interactions between faculty and their supervisors is related to improved levels of faculty trust?

Data obtained from the responses to the survey questions were categorized into three subcategories: 22 of the items were trust-related (survey items 1-22), eight items were
demographic characteristics of faculty, deans/department chairs, and the departments where they work (survey items 24-31), and one additional item was related to the various types of interactions between faculty and their supervisors (survey item 23). Data were analyzed using SPSS (Statistical Package for Social Sciences) software and EQS (Structural Equation Modeling) software.

**Respondent Demographics**

The total number of responses received was 134 (out of a proposed sample range of 118-200). Responses were submitted by both full-time and part-time faculty currently employed by the selected college. Respondent faculty ranged in age from 27 to 75 years old (mean = 51.29, SD = 11.63), 41% were male and 59% of the respondents were female, and 79% were Caucasian and 21% belonged to various minority groups. The faculty who chose to respond to the survey belonged to departments or divisions consisting of anywhere from 2 to 250 faculty members (mean = 41.17, SD = 31.52). More detailed demographics of respondents are presented in Figures 3-5 and Table 5.

Table 6.

*Descriptive Statistics*

<table>
<thead>
<tr>
<th>Interactions</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>115</td>
<td>59.21</td>
<td>26.30</td>
</tr>
<tr>
<td>Hallway chats</td>
<td>115</td>
<td>30.64</td>
<td>32.97</td>
</tr>
<tr>
<td>Faculty meetings</td>
<td>115</td>
<td>30.96</td>
<td>24.15</td>
</tr>
<tr>
<td>One-on-one conferences</td>
<td>115</td>
<td>22.38</td>
<td>26.67</td>
</tr>
<tr>
<td>Supervisor observing me teach</td>
<td>115</td>
<td>12.93</td>
<td>17.28</td>
</tr>
<tr>
<td>I observe supervisor teach</td>
<td>115</td>
<td>3.97</td>
<td>15.67</td>
</tr>
<tr>
<td>Committee meetings</td>
<td>115</td>
<td>18.86</td>
<td>25.62</td>
</tr>
<tr>
<td>Eating lunch together</td>
<td>115</td>
<td>9.52</td>
<td>20.91</td>
</tr>
</tbody>
</table>

General demographics
Table 6.

*Descriptive Statistics*

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean (Respondents)</th>
<th>Mean (State)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years working under this supervisor</td>
<td>112</td>
<td>3.26</td>
</tr>
<tr>
<td>Supervisor’s approximate age</td>
<td>110</td>
<td>49.02</td>
</tr>
<tr>
<td>Faculty age</td>
<td>103</td>
<td>51.29</td>
</tr>
<tr>
<td>Number of people in department/division</td>
<td>94</td>
<td>41.17</td>
</tr>
</tbody>
</table>

Figure 3 provides the contextual basis for the study and displays the comparative demographics of the faculty who responded to the survey and the state-wide demographics of faculty employed by community and state colleges. Figure 4 provides the demographics of the respondents, including years they had worked under their current supervisors, their age, and the supervisor’s approximate age. Figure 5 shows respondents’ supervisor demographics with respect to gender and ethnicity.

**Figure 3. Comparative Demographic Based on Gender and Ethnicity**

*Figure 3.* Statistics are provided in percent of total faculty populations. “Sample” is the percent of respondents to the survey for each type of demographic group. State demographics are obtained from FLDOE (2016).
Figure 4. Statistics are provided in years based on individual survey responses of faculty.
The first step of the data analysis was exploratory factor analysis of the dependent variables – 22 trust items – to determine how these items related to each other (Fabrigar & Wegener, 2012). The data met the assumptions needed to conduct a meaningful factor analysis. First, they were continuous rather than ordinal or nominal. Second, the sample size was large enough: it is recommended that the sample size for factor analysis be no less than 5 observations per variable, making the minimum sample size for this factor analysis 110 participants (McDonald & Ho, 2002). Third, the data were homogenous: Levin’s test of variance returned insignificant results with various trust items’ significances ranging between .16 and .96. This factor analysis returned...
four factor loadings. Factor analysis results are detailed below, as well as in Table 6, Figure 6, and Table 13 (Appendix F).

Survey items 1-13, 18, and 19 (Appendix B) loaded onto the first factor (Trust factor 1). These items come from the literature on trust in schools (e.g., Tchannen-Moran, 2004), general literature on trust (e.g., Burke et al., 2007), and literature on shared decision-making (e.g., Spillane et al., 2004). These items explained 48% of the variance, with factor loadings ranging from .40 to .92. I called the trust factor comprised of these items “Current trust.”

Survey items 15-17 and item 21 (Appendix B) loaded onto the second factor. Items 15-17 come from general literature on propensity to trust (e.g., Dirks & Starlicki, 2004), while item 21 originates in the literature suggesting that trust in a current supervisor is affected by the level of trust in the previous supervisor (e.g., Bryk & Schneider, 2002). Although item 21 does not directly relate to propensity items 15-17, one’s propensity to trust can be affected by various previous experiences (Rogoff, 2003), including those with previous supervisors. These items explained 9.9% of the variance with factor loadings ranging from .58 to .67. I called the trust factor comprised of these items “Propensity to trust.”

Survey items 20 and 22 (Appendix B) loaded onto the third factor. They come from the literature on trust suggesting that the level of current trust can be affected by the level of trust present at the beginning of the relationship (e.g., Salas et al., 2017). These items explained 6.1% of the variance with factor loadings from -.73 to -.83. I named the trust factor comprised of items 20 and 22 “Initial trust.” Factor 4 only received one loading – item 14 (factor loading .77). This item asked participants to rate the level of agreement with the following statement: “One should be very cautious with strangers” and explained 5.44% of the variance. This item was originally
meant to be part of the questions about propensity to trust. So as not to confuse it with factor 2 ("Propensity to trust"), I named this fourth factor "Propensity." Table 6 and Figure 6 summarize how 22 trust items from the survey loaded onto four factors.

Table 7.

**Factor Analysis for Dependent Variables**

<table>
<thead>
<tr>
<th>Number of trust Item on the Survey</th>
<th>Trust Item as Appeared on the Survey</th>
<th>Name of Factor</th>
<th>Percent of Variance Explained/ Eigenvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor one</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>It’s ok to discuss feelings, worries and frustrations in department</td>
<td>Current trust</td>
<td>48%/10.56</td>
</tr>
<tr>
<td>2</td>
<td>Supervisor looks out for personal welfare of the faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I trust my supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Supervisor has confidence in the expertise of faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Supervisor takes personal interest in PD of the faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>To what extend do you feel respected by your supervisor?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The faculty in this department have faith in the integrity of the supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>He supervisor typically acts in the best interest of the faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Faculty in this department can rely on the supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The supervisor does not really tell faculty what is going on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The supervisor does not show concern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Faculty in my department have suspicious of most of the supervisor’s actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The supervisor of my department is competent in doing his job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>My supervisor seeks faculty opinion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>My supervisor is a sole decision-maker in the department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor two</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Most experts tell the truth about the limit of their knowledge</td>
<td>Propensity to trust</td>
<td>9.89%/2.18</td>
</tr>
<tr>
<td>16</td>
<td>Most people can be counted on to do what they say they will do</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Most adults are competent at their jobs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Rate the level of trust in your previous supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor three</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>When you started working under the supervision of your current faculty chair/dean how much trust did you have in him?</td>
<td>Initial trust</td>
<td>6.09%/1.34</td>
</tr>
<tr>
<td>22</td>
<td>How much trust did you have in your current supervisor when he/she first assumed their role?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor four</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>One should be cautious with strangers</td>
<td>Propensity</td>
<td>5.44%/1.2</td>
</tr>
</tbody>
</table>

Total variance explained: 69.42%

After determining factor loadings of the dependent variables – faculty trust in immediate supervisors (Table 6), an additional factor analysis was performed on the following independent variables to determine how the different types and frequencies of interactions relate to each other: email exchanges, hallway chats, faculty meetings, one-on-one conferences, supervisor observing faculty teach, faculty observing supervisor teach, participation in committee meetings together, and eating lunch together (survey item 23, Appendix B). The data met the assumptions required to perform factor analysis. They were continuous rather than ordinal or nominal and the sample size was sufficiently large; the data were homogenous: Levin’s test of variance returned insignificant results, with various trust items’ significance ranging from .098 to .927. This second factor analysis returned one factor loading, and the results are detailed in Table 7 and Figure 7 below as well as in Table 14 (Appendix F).
Table 8.

Factor Analysis for Independent Variable

<table>
<thead>
<tr>
<th>Number of Interaction Item on the Survey</th>
<th>Trust Item as Appeared on the Survey</th>
<th>Name of factor</th>
<th>Percent of Variance Explained/Eigenvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Email exchanges</td>
<td>Interactions</td>
<td>51.63% / 4.14</td>
</tr>
<tr>
<td>2</td>
<td>Hallway chats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Faculty meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>One-on-one conferences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Supervisor observing faculty teach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Faculty observing supervisor teach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Participating in committee meetings together</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Eating lunch together</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Figure 7. Scree Plot for Independent Variable
Path Analysis

Following two factor analyses, I performed a path analysis using EQS to assess the relationship between multiple dependent and multiple independent variables (Tabachnik & Fidell, 2001).

**Full model.** Using EQS, the relationships were examined between four factors of trust (“Current trust,” “Propensity to trust,” “Initial trust,” and “Propensity,” as detailed in Table 6) and several independent variables including the “Interactions” factor (Table 7), the number of years a faculty member had worked under the current supervisor, faculty member’s age, supervisor age, approximate number of people in the department, faculty gender, supervisor gender, faculty ethnicity, and supervisor ethnicity. This model is presented in Figure 8. The assumptions of multivariate normality and linearity were evaluated through SPSS and were met. To test the relationship between all predictor variables and all output variables, I examined the internal structure of the full model by looking at the magnitude, direction, and significance of each path coefficient.

Figure 8 details the results of analysis. Standardized Beta coefficients (β) appear above the arrows and are color coded. Red arrows show the effects of all inputs on the first trust factor – “Current trust”; blue arrows show the effects of all inputs on the second trust factor – “Propensity to trust”; yellow arrows show the effects of all inputs on the third trust factor – “Initial trust”; and, finally, green arrows show effects of all inputs on the fourth trust factor – “Propensity.”
Figure 8. Full Model Path Diagram

Betas that had an absolute value of .2 or larger were considered significant and those items were retained in the reduced model. Inputs whose $\beta$’s absolute values were less than .1 were removed from the reduced model. These included the following:
• Affecting the level of “Current trust”: years under the supervisor, faculty age, faculty gender, supervisor gender, and faculty ethnicity.

• Affecting the level of “Propensity to trust”: “Interactions,” years under the supervisor, faculty gender, and faculty ethnicity.

• Affecting the level of “Initial trust”: “Interactions,” faculty age, supervisor age, number of people in department, and supervisor ethnicity.

• Affecting “Propensity”: years under supervisor, supervisor age, number of faculty in department, faculty gender, faculty ethnicity, and supervisor ethnicity.

Inputs whose β’s absolute values were between .1 and .2 are discussed further.

The following independent variables had standardized Beta coefficients with absolute values between .1 and .2 when affecting Trust factor 1 “Current trust”: supervisor age (β = -.13) and number of people in the department (β = -.12). Negative βs suggest that faculty trust in the current supervisor declines with an increase in supervisor age as well as with an increase in size of the department/division to which the faculty member belongs. Both of these inputs were retained in the reduced model, since the size of a school/organization and the supervisor age have been previously investigated and found to be significant in relation to employee trust in leaders (Bryk & Schnedier, 2002; La Porta, Lopez-Di-Silanez, Shleifer, & Vishny, 1997; Scott & Cook, 1983).

The following independent variables had standardized Beta coefficients with absolute values falling between .1 and .2 when affecting Trust factor 2 “Propensity to trust”: faculty age (β = .18), supervisor gender (β = .12), and supervisor ethnicity (β = -.12). The first of the three inputs – faculty age – was retained in the reduced model. Its positive β suggests that the older a
faculty member is, the more trusting a person they become in general. This idea finds support in some literature, including the work of Kocher and Sutter (2007), who found that propensity to trust increases with age. Because I was not able to find empirical support of supervisor gender and ethnicity having an impact on employee propensity to trust, I chose to remove these items from the reduced model.

The following independent variables had standardized Beta coefficients with absolute values between .1 and .2 when affecting Trust factor 3 (“Initial trust”): faculty gender ($\beta = -.14$) and supervisor gender ($\beta = -.15$). Because factor loadings for Trust factor 3 were negative (-.73 and -.83) and two above-mentioned standardized Beta coefficients were also negative, I adjusted both the signs of the Beta’s and the signs of the factor loadings for easier result interpretation. The faculty gender Beta of .14 implies that male faculty had more trust in their supervisors at the time the supervisor assumed their role. The supervisor gender Beta of .15 implies that faculty had more trust in male supervisors at the time the supervisor assumed their role. The idea of differentiation between genders, with respect to trust, finds support in the literature. For example, the Pew Research Center (2007) found that women were less trusting than men. Additionally, in the context of this study, while about 18% fewer male than female faculty responded to the survey and 14% fewer faculty who responded work under male supervisors, both of these inputs returned significant Betas, suggesting that the men were more trusting and considered more trustworthy in the beginning of the relationship than women. Both faculty gender and supervisor gender were retained in the reduced model, when impacting “Initial trust”.

Because Trust factor 4 – “Propensity” – only received one item loading and had no Betas with absolute values higher than .15, I removed this factor from the reduced model.
Reduced model. Using EQS, the relationships were examined between three factors of trust (“Current trust,” “Propensity to trust,” and “Initial trust”) and several independent variables, including the “Interactions” factor (Table 7), number of years a faculty member had worked under the current supervisor, faculty member’s age, supervisor age, approximate number of people in the department, faculty gender, supervisor gender, faculty ethnicity, and supervisor ethnicity. This model is presented in Figure 9. To test the relationship between all predictor variables and all output variables, I examined the internal structure of the reduced model by looking at the magnitude, direction, and significance of each path coefficient.

![Figure 9. Reduced Model Path Diagram](image)

Figure 9. Standardized Beta coefficients appear above appropriate arrows. Arrows and Betas are color-coded: impacts of inputs on Trust factor 1 are in red; impacts of inputs on Trust factor 2 are in blue; impacts of inputs on Trust factor three are in yellow. Due to factor loadings of Trust factor three (“Initial trust”) being negative, the signs of Beta coefficients of inputs affecting this factor are changed to their opposites.

Independence model Chi-Square = 185.62, df = 66, CFI = 1.000, RMSEA = 0.000.
The next section will discuss standardized beta coefficients and their meanings within the context of this study, beginning with inputs that were found to positively impact various trust factors.

**Positive standardized Beta coefficients.** The effects of “Interactions” ($\beta = .35$) on “Current trust” suggest that, with an increase in interactions between faculty and their immediate supervisors the level of faculty trust significantly improves. While not as strong, a similar impact on “Current trust” factor is seen with an increase in supervisor age ($\beta = .23$).

The “Propensity to trust” factor was positively impacted by the following inputs: faculty age ($\beta = .22$), supervisor age ($\beta = .17$), and the number of people in a department/division a faculty member belongs to ($\beta = .22$). According to these statistics, the older a faculty member is, the more trusting a person he or she is, in general. A disposition to trust is also more likely to be seen in faculty who work under older supervisors and belong to larger departments/divisions.

Finally, based on these data, “Initial trust” was positively influenced by the number of years a faculty and a supervisor had worked together ($\beta = .40$) and by faculty ethnicity ($\beta = .19$) implying that Caucasian faculty had higher levels of initial trust in their current immediate supervisors.

**Negative standardized Beta coefficients.** Supervisor age ($\beta = -.10$) and the number of people in the department ($\beta = -.15$) both had a negative impact on “Current trust.” These data suggest that older supervisors and larger departments negatively impact the level of faculty trust in immediate supervisors.
Finally, faculty gender ($\beta = -0.14$) and supervisor’s gender ($\beta = -0.10$) display a negative impact on the level of initial trust. These statistics suggest that male faculty had less initial trust in their current immediate supervisor and that male supervisors received a lower initial level of trust from their faculty. Standardized Beta coefficients are summarized in Table 8.

Table 9.

*Standardized Beta Coefficients. Path Analysis Reduced Diagram*

<table>
<thead>
<tr>
<th></th>
<th>“Interactions”</th>
<th>Faculty age</th>
<th>Supervisor age</th>
<th>Years working under the supervisor</th>
<th>Number of people in department/division</th>
<th>Faculty gender</th>
<th>Faculty superior</th>
<th>Faculty ethnicity</th>
<th>Supervisor ethnicity</th>
<th>Standardized Beta Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current trust</td>
<td>.35</td>
<td>-.10</td>
<td>-.15</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propensity to trust</td>
<td>.22</td>
<td>.17</td>
<td>.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial trust</td>
<td>.40</td>
<td></td>
<td></td>
<td>.14</td>
<td>.10</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The goodness of fit of full and reduced models were assessed based on the models’ AIC (Akaike Information Criteria). The full-model AIC was -0.006, whereas that of the reduced model was -22.228, implying that the reduced model was more parsimonious for the given data. The reduced model and not the full one can be used in the future to test hypotheses associated with the variables included into the model.

**Summary of Results**

This section summarized the results obtained from the analysis of the data. Factor analyses were performed to assess the relationship within independent and dependent variables. The factor analysis on the dependent variables (22 trust items) revealed four factor loadings: “Current trust,” “Propensity to trust,” “Initial trust,” and “Propensity,” whereas the factor analysis on the independent variables (eight types of interactions) revealed one – “Interactions.”
Path analysis (full and reduced path diagrams) was then utilized to assess the impacts of independent variables on trust, assuming that all relationships were direct. Strong positive influences were detected when the following were examined: the impacts of interactions and supervisor age on current trust; the impacts of faculty age, supervisor age, and number of people in the department on propensity to trust; and the impacts of faculty ethnicity and the number of years faculty and supervisors had worked together on the level of perceived initial trust. Negative influences were detected when the following were examined: the impacts of supervisor age and the number of people in the department on current trust and the effects of years faculty and supervisors had worked together, supervisor and faculty gender, and supervisor and faculty ethnicity on propensity to trust.
Chapter 5. Conclusions and Recommendations

This study was aimed to fill a gap in the literature on trust specific to a state college context and served as the first step in investigating how faculty trust develops in context of a state college. As a quantitative study, this research utilized a one-time, online-based “Faculty Trust Survey” (Appendix B) to collect data. Data collected included faculty members’ and their supervisors’ demographics, faculty attitudes about trust in their immediate supervisors, and frequencies and types of interactions between faculty and their immediate supervisors. An analysis of the data was conducted to determine how the hypothesized independent variables (frequencies and types of interactions and demographic characteristics of faculty and supervisors) impacted the dependent variable (faculty trust in immediate supervisors). The purpose of the study was to determine frequency and types of interactions between state college faculty and faculty immediate supervisors that are related to higher levels of faculty trust.

In addition to interpreting the results of this study, this chapter provides higher education practitioners and education policy-makers with practical suggestions on improving faculty trust in their immediate supervisors within a state college environment. Further, it lists recommendations for future research on trust based on earlier research literature and the findings from this study.

Overview of Methodology

In this quantitative research methodology, I used an online-based faculty survey to learn the opinions of faculty about their supervisors’ characteristics that increase faculty trust. The population of this study was all faculty (full-time and part-time) employed by a selected state college located in northeast Florida. The entire population was invited to participate in the study,
making the sampling procedure for this study a census sampling (Muijs, 2011). Based on the conceptual framework of the study and on reviewed literature on trust, to collect data I used a questionnaire created from two major research clusters on trust in schools and trust antecedents gleaned from the literature. The two original instruments on which I based mine were Bryk and Schneider’s Rasch Scale of Teacher-Principal Trust (2002) and Tschannen-Moran and Hoy’s Faculty Trust Survey (1998). Since the survey instrument was newly created, I conducted a pilot study to ensure its content validity. The participants of the pilot study suggested no modifications.

I analyzed the data with Statistical Package for the Social Sciences (SPSS) computer software using factor analysis on both dependent and independent variables and then conducted a path analysis performed in EQS (Structural Equation Modeling) computer software.

Research Participants

As noted in Chapter 3, the population of the study was 388 full-time and 787 part-time faculty employed by the selected state college located in northeast Florida (Florida Department of Education, 2017) totaling to 1175 faculty. The entire population was invited to participate in the study. To contextually describe the study, demographics of participating faculty and their supervisors’ demographics were detailed in Figures 4-5. Additionally, comparative statistics of participating faculty and state-wide faculty of community and state colleges were provided in Figure 3.

Synopsis of Data Analysis

Factor analysis on both dependent and independent variables and then a two-step path analysis (full model and reduced model) were used to examine the relationship between
independent and dependent variables. Factor analysis performed on 22 trust items from the Faculty Trust Survey (Appendix B) revealed four factor loadings (Trust factors 1, 2, 3, and 4, $\lambda = 10.56, 2.18, 1.34, \text{ and } 1.20$, respectively), thus reducing the number of dependent variables from 22 to 4. Factor analysis on eight ways to interact (email, hallway chats, one-on-one conferences, faculty observing supervisor teach, supervisor observing faculty teach, participating in committee meetings together, and eating lunch together) revealed one factor loading (“Interactions,” $\lambda = 4.14$), reducing the number of independent variables from 16 (all the ways to interact, as listed above, and demographic variables) to 9 (the “Interactions” factor and the demographic variables).

Following two factor analyses, path analysis was performed in two steps. In the first step, the full-model (Figure 8), the strength of the relationship between all nine independent and four dependent variables was examined using standardized Beta coefficients. The second step – the reduced model (Figure 9) – examined the relationship between nine independent variables and three dependent variables. Based on standardized Beta coefficients, I decided to remove Trust factor 4 and several of the paths from the model to improve its fit. The goodness of fit of two models was determined based on their AIC (Akaike Information Criteria): full model AIC = $-0.006$ and reduced model AIC = $-22.228$.

**Summary of Results**

The reduced-model path analysis displayed several significant relationships between predictor variables and Trust factors 1, 2, and 3 (“Current trust”, “Propensity to trust”, and “Initial trust”). These relationships are discussed further below.
The model revealed a significant positive impact of “Interactions” on “Current trust” (β = .35) and supervisor’s Caucasian ethnicity on “Current trust” (β = -.13). The “Propensity to trust” factor was positively impacted by the following inputs: faculty age (β = .22), supervisor age (β = .17), and the number of people in the department/division to which a faculty member belonged (β = .22). “Initial trust” was positively influenced by the number of years a faculty and supervisor had worked together (β = .40) and by faculty ethnicity (β = .19). Supervisor age (β = -.10) and the number of people in the department (β = -.15) both had a negative impact on “Current trust.” Finally, faculty male gender (β = -.14) and supervisor’s male gender (β = -.10) had a negative impact on “Initial trust.” These results are summarized in Table 8.

Interpretation of Findings and Their Relationship to Previous Research

The findings described in the previous section were interpreted based upon two research questions.

Research question 1. What types of professional interactions of faculty supervisors and faculty are related to improved levels of faculty trust?

Based on the factor analysis of eight of 16 independent variables – the ways and frequencies of interactions between faculty and their immediate supervisors, including email exchanges, hallway chats, one-on-one conferences, faculty observing supervisor teach, supervisor observing faculty teach, participating in committee meetings together, and eating lunch together, all types of interactions were loaded into one factor named “Interactions.” This result suggests that one way of interacting with faculty produces others, in turn increasing current level of faculty trust. Specifically, if, for example, a supervisor frequently initiates contact with faculty by email, they are more likely to interact using other forms of exchanges, resulting in more trusting
relationships between faculty and supervisors; as further discussed, the “Interactions” factor positively and significantly impacted faculty “Current trust” in the immediate supervisor.

**Research question 2. What frequency of interactions between faculty and their supervisors is related to improved levels of faculty trust?**

One finding of this study that is in line with previous research findings is that frequent interactions do impact the level of faculty trust in supervisors (e.g., Bryk and Schnedier, 2002). They do not, however, have any significant effect on either the levels of initial trust or the predisposition/propensity to trust. The reduced model (Figure 9) explained that, with increased interactions between faculty and supervisors, faculty members tend to trust supervisors more. The standardized Beta coefficient of this relationship was .35.

**Impacts of demographic characteristics on faculty trust.** Based on the reduced model (Figure 9), several demographic characteristics of faculty and their supervisors, as well as the size of their departments/divisions, had statistically significant impacts on the “Current trust,” “Propensity to trust,” and “Initial trust” factors.

**Impacts on the “Current trust factor.”** An increase in supervisor age contributed to a decrease in the “Current trust” factor (β = -.10), suggesting that “Current trust” of faculty in supervisors who are older is lower than that of faculty whose supervisors are younger. Additionally, larger department size also contributed to a decrease in current trust (β = -.15). This implies that faculty of larger departments have lower levels of trust in their supervisors than faculty that belong to smaller departments. Finally, “Current trust” improves if faculty members work under a Caucasian supervisor (β = .19).
While the first and third results do not find direct support in the literature, some indirect evidence exists. Job satisfaction and employee trust are related: higher levels of trust have been found to be related to higher levels of job satisfaction (Gibson & Petrosko, 2014; Payne, 2014). For instance, Campione (2014) discovered that job satisfaction of employees who work under older Caucasian supervisors is higher. She explained it by the fact that a “norm” for anyone who is in the position of authority is to be “older and white” (p. 29). One can then speculate that those who work under supervision of older Caucasian leaders would trust them more and thus be more satisfied with their jobs. Interestingly, while having a Caucasian and not a minority supervisor led to increased job satisfaction (per Campione, 2014) and faculty trust (per this analysis), supervisor age has the opposite effect on job satisfaction and employee trust in leaders. Campione (2014) discovered that the older the supervisor is, the more satisfied their followers are with their jobs, and yet this study’s results showed that the opposite is true for trust: supervisors’ age was negatively related to faculty trust. The findings of this analysis in regard to supervisor age and level of faculty trust in them could be the first step in finding out more about the relationship between these variables within a state college context.

The second result (increase of trust with decrease of departmental size) is in line with previous findings from public-schools and finds strong support in the research literature. According to Bryk and Schnedier (2002, 2003), faculty who work in smaller schools trust their principals more than those who work in larger educational organizations. At a state college level, faculty who belonged to smaller departments trusted their deans and chairs more than faculty who belonged to larger ones.
**Impacts on the “Propensity to trust” factor.** Increase in faculty age contributed to an increase in the “Propensity to trust” factor ($\beta = .22$). This finding suggests that the older the faculty member is, the more trusting a person he or she is in general. A similar conclusion was drawn by Zefani (2018), who, in his exploratory study of age, gender, and work experience impacts on propensity to trust, also confirmed that older people’s propensity to trust is significantly higher than that of younger people.

An increase in supervisor age also contributed to an increase in the “Propensity to trust” factor ($\beta = .17$), suggesting that faculty disposition to trust improves with an increase in supervisor age. This result was somewhat surprising both with respect to previous research and within the context of this study. As stated in the previous section, I was not able to find any evidence of supervisor age being connected to the level of employee trust in them or the level of propensity to trust, although the dependence of job satisfaction on supervisor age has been investigated. Artz (2013) and Campione (2014) found that, with the presence of some mediating variables, employees of older supervisors tend to be more satisfied with their jobs than those who have younger or minority bosses. Since satisfaction also depends on employee trust in their leaders (Bhatti et al., 2012; Naicker & Mestry, 2013), one could speculate that trust in supervisor and supervisor age are connected, although additional evidence is necessary. Further complicating the interpretation of this finding is that the effects of supervisor age here are observed on “propensity to trust,” and not on “current trust.” While disposition to trust has been treated as a trust successor by multiple scholars, more research is necessary to determine if the relationship between supervisor age and propensity to trust does, in fact, exist.
An increase in the number of people in the department/division contributed to the “Propensity to trust” factor \((\beta = .22)\), indicating that faculty who belong to larger departments are more predisposed to trust than those who work in smaller ones. To my knowledge, employee propensity to trust has not been investigated in terms of the size of the organization or department of employment, and so additional evidence is necessary. Within this study, the effect of department size on propensity to trust is significant and needs further exploration.

**Impacts on the “Initial trust” factor.** An increase in the number of years faculty and supervisors had worked together contributed to the “Initial trust” factor \((\beta = .40)\), implying that the longer a faculty member has been working under the current supervisor, the more trustworthy this supervisor seemed at the beginning of their working relationship. Caucasian faculty displayed more initial trust in their supervisors than minority faculty, **male faculty** \((\beta = -.14)\) had less initial trust in their current immediate supervisor, and, finally, **male supervisors** \((\beta = -.10)\) received a lower initial level of trust from their faculty.

Research on the concept of initial trust is quite limited. Most of the work concerning initial trust investigates it as an antecedent of “current trust” (e.g., Salas et al., 2017), as a successor of “propensity to trust” (e.g., Alarkon et al., 2018), or a result of common values and demographics (e.g., Tschannen-Moran, 2014). Some researchers (e.g., Salas et al., 2017) proposed that higher levels of initial trust may cause trust to develop due to the presence of vulnerability, and yet others (e.g., Tschannen-Moran & Hoy, 1998) suggest that both low or high levels of initial trust can develop into a trusting relationship between the parties depending on common experiences.

If viewed as a successor of “current trust,” however, some confirmations of lengthier relationships and higher levels of initial trust exist in the literature (e.g., Hakan & Jamel, 2013).
Additional research is necessary to find out how supervisor and faculty gender and ethnicity impact the level of initial trust and any possible correlations between initial trust and current trust specific to faculty of state college, as some of the results that emerged from this study contradict both each other and those from previous research.

**Contradicting results within the study.** Within the context of this study, the older the supervisors were, the higher the level of propensity to trust the faculty had, while current trust level of faculty declined. Additionally, the larger the department they belong to was, the higher was the level of propensity, and yet current trust level was lower (Table 9).

These finding are discussion provoking, as multiple research and theoretical work considers propensity to trust to be one of trust’s antecedents. Alarcon, Lyons, and Christensen (2016), for example, found that propensity was a predictor for all components of trust, based on the “Five Component Model.” Tschannen-Moran & Hoy (1998) explained propensity to trust as a “trigger” for trust development. If treated as an antecedent of trust, propensity to trust and current trust have similar dynamics, when influenced by the same variables, which is not the case in this study. A possible explanation to these findings could be a recent organizational reorganization within the college. Most faculty, while considering themselves trusting, could had little trust in their deans or chairs; however, this is just speculation, and more empirical work is clearly necessary to discover why propensity to trust and current trust are not impacted similarly when affected by supervisor age and number of people in the department.

Additionally, contradicting results were displayed when the effects of years working under the same supervisor on faculty-perceived initial trust and supervisor age on current trust were measured (Table 9). Inevitably, the longer a faculty works with the same supervisor, the older
both become, and yet supervisor age negatively impacted the level of current trust, whereas the number of years working together positively impacted the level of initial trust.

Table 10.

Contradicting results within the study

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<th>Supervisor age</th>
<th>Number of people in department/division</th>
<th>Number of years working together</th>
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<td></td>
</tr>
<tr>
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<td>Low</td>
<td></td>
</tr>
<tr>
<td>Initial trust</td>
<td></td>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>

Insignificant results of this study that were previously confirmed empirically. Some of the inputs were found to not have a substantial effect on dependent variables in this study, but were found to have statistically significant relationships with similar outputs in earlier research. These differences could be caused by the difference in research sites; to my knowledge, this study was the first one to investigate trust of faculty in supervisors employed by a community or state college.

The effects of faculty age on current trust. Scott and Cook (1983), who investigated employee trust in immediate management, found that older employees trusted immediate management more than employees of younger age groups, whereas this study did not return a significant result for age ($\beta = .06$).

Number of years working together on current trust. A recent study by Alarcon et al. (2018) recognizes the significance of common experiences in the growth of trust from initial to mature and implies that the longer two parties work together, given that their experiences together are positive, the more they trust each other. Lewicki et al. (2006) reached a similar
conclusion, suggesting that initial trust is normally low and either grows into mature, based on positive mutual experiences, or into distrust, in case of betrayal. This study, however, presented no statistically significant relationship between the number of years faculty and supervisors worked together on current level of faculty trust in them (β of -.05).

**Research Recommendations**

**Recommendations for state college faculty, administrators, and staff.** One of the factors affecting the level of trust faculty have in their principals in K-12 was frequent interactions (e.g., Tschannen-Moran & Hoy, 1998; Bryk & Schneider, 2002). In the context of a state college, this statement also found support, as shown by the findings of this study; state college faculty trust in immediate supervisors was found to increase with an increase in number of interactions. Improved levels of trust can lead to lower faculty turnover, which, in turn, can impact student success and create a school budget surplus (Pendegraft, 2015; Treat & Hagedorn, 2017). With the goal of improving trust levels in their supervisors, both faculty and supervisors can seek interactions with each other through various modes of communication. Based on the results of this study, interacting in one way may cause interactions in still other ways, and, with more interactions, deans and faculty chairs should see higher levels of faculty trust.

This finding should also be noted by state college human resource departments and state-level policy-makers. Since frequent professional interactions produce higher levels of trust, faculty and supervisor job agreements or job descriptions should perhaps be adjusted to specify a minimum number and types of these interactions.

Another finding that emerged from this study was the importance of the length of a supervisor-supervisee relationship, in the formation of initial trust. Most research to date
describes initial trust as a requirement for trust development or as a variable that depends on one’s predisposition to trust or the amount of information parties possess about each other. This research suggests that the level of perceived initial trust at the time the survey was taken strongly correlates with the time a faculty member and supervisor have worked together. From a practical standpoint, this result is quite understandable: with frequent changes of leaders on all levels of an institutional hierarchy, faculty will likely be more suspicious of new supervisors’ actions and less trusting in their supervisors and the organization in general. This result has practical implications for state college administrators, human resource departments, and hiring committees. Well-organized recruitment, search, selection, and hiring processes can help identify and bring in quality administrators who are willing to stay. Webb and Norton (2013) identify several activities that can help newly hired administrators become adjusted to the new workplace, including pre-employment activities, orientation, a mentor during the first two years of employment, and others. These activities should be organized for all college employees: retaining administrations promotes faculty trust, while retaining faculty promotes student success, retention, and significant savings for the institution.

Finally, most faculty felt more trust in their supervisor if they worked in a smaller department/division. While differences in sizes between departments are unavoidable, colleges can modify their hierarchical structure to create smaller organizational units. For example, if a department exceeds a predetermined number of faculty, in addition to a dean leading the department, an associate dean(s) or a department chair(s) should be hired, “splitting” the workload between them and possibly creating more trusting environments.
Study limitations and suggestions for future research. The study needs to be viewed in light of its limitations.

- One of the limitations is that I employed a cross-sectional design where all casual inferences were made based solely of theoretical reasoning.

- When performing path analysis, all effects were considered direct, mediating variables were not incorporated into the study, and, while correlations between dependent and independent variables were reported (Appendix E), they are not included into the discussion. Additional work needs to be performed to investigate whether correlations among independent variables and among dependent variables impact faculty trust. These were, however, beyond the scope of this study.

- Some of the correlations that should be considered are between faculty and supervisor gender, faculty and supervisor ethnicity, age gap and relative ages of faculty and supervisors (i.e., whether a supervisor is younger or older than a faculty member) (Bryk & Schnedier, 2002; Campione, 2014; Hakansson & Sjoholm, 2007; Kunze & Menges, 2017). Additionally, based on some contradicting findings from this research, correlations between supervisor age and the number of people in the department should be examined, since both of these variables displayed similar impacts on current trust and propensity to trust, as well as between the number of years working under the same supervisor and supervisor age. Finally, studying correlations between trust factors (“Current trust”, “Propensity to trust”, and “Initial trust”) appears beneficial.

- Factor analysis on dependent variable – eight ways to interact – returned one factor loading that, for the purposes of this research, was named “Interactions” ($\lambda = 4.14$). This
factor analysis is detailed in Table 7 and Figure 7. From the scree plot (Figure 7), it is evident that the second factor loading only missed the “cut off” of $\lambda = 1$ by .03, returning an eigenvalue $\lambda = .97$. This means that there could be another factor loading which would allow for a more detailed response to Research Question 1 and a possibility to specify interactions that are related to improved faculty trust in immediate supervisors.

Furthermore, faculty who were taking the survey were asked to suggest other modes of interaction they have with their deans/faculty chairs and rate them based on frequency. Some faculty opted to respond to this question with the following additional ways they interacted with their supervisors: supervisor responses to complaints and issues; phone calls; social events; traveling together; and attending conferences. Adding these ways to interact to the survey could also help to obtain additional factor loading(s) from the factor analysis on the independent variable and help make the response to Research Question 1 more detailed. Finally, based on previous research, face-to face interactions result in more trusting relationships than online communication (Naquin & Paulson, 2003; Wilson et al., 2006). Thus, a comparison of trust level among those who primarily interact online with those who prefer to interact in person could be beneficial.

In addition to including the items noted above into the survey instrument, several other modifications could also be made. First, to avoid misinterpretation, open-ended responses (age and number of people in the department/division specifically) could be changed to a digital scale. Second, including a question about faculty employment status (full-time vs. part-time) and then incorporating it in the analysis as another independent variable could be useful.
While the demographics of the sample of this study were not dissimilar to the community and state college faculty demographics of the entire state of Florida (Figure 3), conducting a similar investigation with a sample of faculty drawn from several different community and state colleges in Florida and nation-wide could strengthen generalizability of results. Additionally, demographic characteristics were self-reported based on faculty knowledge and thus could be inaccurate.

This study was concerned only with the quantitative aspect of interactions between faculty and their leaders, while qualitative aspect of such interactions was not taken into account. Additional improvement to a similar study in the future can be made by adding questions about quality of interactions between instructional and administrative personnel of state colleges.

Finally, because trust is often viewed as a reciprocal concept (Dirks & Starlicki, 2004; Fink, 2014), it is important to bring faculty’s immediate supervisors – i.e., the “recipients” of faculty trust – into the study and ask their opinions about ways to earn faculty trust.

Ultimately, this study has served as a first step in investigating faculty trust in their immediate supervisors in the context of state college. While more work needs to be done to better understand this construct, several important findings of this study have led to a better understanding of how faculty trust develops at a state college level. First, the research produced a model of trust development that can provide a basis for future research. Second, it added to current knowledge on ways to improve trust between faculty and supervisors employed by a state
college. Third, it suggested several routes that can be taken by educational practitioners and policy-makers to achieve higher levels of faculty trust and thus improve faculty retention rates and student success.

Despite the goals that were met by this study, it constituted only the first step in understanding faculty trust in supervisors, specifically within the context of a community or state college.
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Appendix A

Trust Items from Existing Instruments Before Modifications

Items from Rasch Scale of Teacher-Principal Trust:

1. It's OK in this school to discuss feelings, worries, and frustrations with the principal.
2. The principal looks out for the personal welfare of the faculty members.
3. I trust the principal at her word.
4. The principal has confidence in the expertise of the teachers.
5. The principal takes a personal interest in the professional development of the teachers.
6. To what extent do you feel respected by your principal?

Items from Teacher-Principal Trust Survey:

7. The principal in this school typically acts in the best interests of the teachers.
8. Teachers in this school can rely on the principal.
9. Teachers in this school trust the principal.
10. The principal does not really tell the teachers what is going on.*
11. The principal of this school does not show concern for teachers.*
12. The teachers in this school are suspicious of most of the principal’s actions.*
13. The principal in this school is competent in doing his or her job.

*Reversed items
Appendix B

Faculty Trust Survey

Please use the running scale provided for each statement to rate your opinion about them. The scale runs from 0 = “Strongly disagree”, “Absolutely not”, “Never” to 100 = “Strongly agree”, “Yes”, “Always”, “To a great extent”, “Very frequently”. Your answers are anonymous and will only be used for the purposes of this research. They will not be shared with anyone outside of this research project. The term “supervisor” refers to your immediate supervisor (either dean or faculty chair, whichever applies).

Please answer as many questions as possible to the best of your knowledge. State “I don’t know”, when applies.

1. It's OK in this department to discuss feelings, worries, and frustrations with the supervisor
2. The supervisor looks out for the personal welfare of the faculty
3. I trust my supervisor
4. The supervisor has confidence in the expertise of the faculty.
5. The supervisor takes personal interest in the professional development of the faculty.
6. To what extent do you feel respected by your supervisor?
7. The faculty in this department have faith in the integrity of the supervisor.
8. The supervisor of my department typically acts in the best interests of the faculty
9. Faculty in this department can rely on the supervisor.
10. The supervisor does not really tell faculty what is going on.
11. The supervisor of this department does not show concern for faculty.
12. The faculty in my department are suspicious of most of the supervisor’s actions.
13. The supervisor of my department is competent in doing his/her job.
14. One should be very cautious with strangers.
15. Most experts tell the truth about the limits of their knowledge.
16. Most people can be counted on to do what they say they will do.
17. Most adults are competent at their jobs.
18. My supervisor seeks faculty opinion.
19. My supervisor is a sole decision-maker in our department.
20. When you started working under the supervision of your current dean/faculty chair, how much trust did you have in him/her?
21. Rate the level of trust in your previous supervisor.
22. How much trust did you have in your current supervisor when he/she first assumed this role?
23. Please indicate how frequently you interact with your current supervisor through each of the following methods of communication:
   - Email exchanges
   - Hallway chats
   - Faculty meetings
- One-on-one conferences
- Supervisor observing me teach
- Me observing supervisor teach
- Participating in committee meetings together
- Eating lunch together
- Other (please specify and rate using the same scale)

Answer the following questions to the best of your knowledge:

24. I have been working under this supervisor for ______ years
25. My gender: ______ (multiple choice)
26. My ethnicity: ______ (multiple choice)
27. Age: ______ years old.
28. Supervisor’s gender: ______
29. Supervisor’s ethnicity: ______
30. Supervisor’s Approximate age (intervals): ______
31. My supervisor’s department/division has approximately ______ faculty.
Appendix C

Cover Letter

Date: May 1, 2018

Dear Faculty Member,

Your institution has been selected to respond to a questionnaire assessing faculty trust in their immediate supervisors. I am a doctoral candidate at the University of North Florida conducting research regarding faculty trust in their immediate supervisors in community/state college setting. Faculty perceptions of various self-, supervisor-, relational- and organizational attributes are of critical importance to this educational study. The following definition of trust has been used for the purpose of this study. Trust is defined as faculty willingness to take professional risks based on the perceived reliability, benevolence, honesty/integrity, openness, competence, respect, and personal regard, of the supervisor, even in situations of vulnerability and uncertainty.

Please complete this questionnaire assessing your level of trust in your supervisor. It consists of 35 questions and will take about 15 minutes to complete. The questionnaire asks you to rate statements about various aspects of your professional life and your and your supervisor’s demographics. Once you answer all of the questions – you will be prompted to the submission page. Please be assured that once submitted, your responses are kept confidential and anonymous and will only be used for the purposes of this dissertation. A summary of research will be emailed to you upon completion. I ask that you complete the questionnaire within one week.

I appreciate your participation in this research.

Sincerely,

Anna Byrd.
Appendix D

Follow-up email to participants

Date: May 8, 2018

Dear Faculty,

Thank you to all of those who took the time to respond to the faculty survey I sent a week ago. Your time and effort are greatly appreciated. If you have not had a chance to respond to the questionnaire items – I ask you to do so within the next week. Your opinions will be kept confidential and will only be used for the purposes of this dissertation. Your answers are anonymous and cannot be traced to your identity.

For your convenience, I attach the cover letter I sent with the original survey link.
I appreciate your participation in this research.

Sincerely,

Anna Byrd.
### Appendix E

Table 11.

**Full Model Correlation Matrix for Measured and Observed Variables**

<table>
<thead>
<tr>
<th></th>
<th>Interactions factor</th>
<th>Number of years under supervisor</th>
<th>Faculty age</th>
<th>Supervisor age</th>
<th>Number of people in department</th>
<th>Faculty gender</th>
<th>Supervisor gender</th>
<th>Faculty ethnicity</th>
<th>Supervisor ethnicity</th>
<th>Current trust</th>
<th>Propensity to trust</th>
<th>Initial trust</th>
<th>Propensity</th>
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**Table 12.**

*Reduced Model Correlation Matrix for Measured and Observed Variables*

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<th>Supervisor age</th>
<th>Number of people in department</th>
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Appendix F

Factor analyses communalities

Table 13.

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Table 14.

**Independent Variable Factor Analysis Communalities**

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*Note. Extraction method – principal component analysis. Minimum required eigenvalue \( \lambda = 1 \). Rotation method: Oblimin with Kaiser normalization*