

TEXAS TEACHER RETENTION BASED ON PRINCIPAL USE OF INFLUENCE TACTICS

A Dissertation

by

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This dissertation meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

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ABSTRACT

Due to the continuous decrease in teacher retention rates in the state of Texas, it is important to understand principals' use of influence tactics and their effects on teacher retention. The purpose of this quantitative, nonexperimental, cross-sectional, descriptive design (Creswell & Creswell, 2018; O'Dwyer & Bernauer, 2013) study was to examine principals' use of influence tactics on teacher retention, as well as identify differences found in gender and years of teaching experience within teacher retention rates. The theoretical framework used in this research was Yukl and Falbe's (1990) influence tactic theory. The sample consisted of 50 teachers from five school districts in the greater Corpus Christi, TX area with a 784 zip code. Participants completed four demographic questions, along with the Influence Behavior Questionnaire (IBQ-G). An independent samples *t* test and one-way ANOVA were used to analyze the data. This study included three research questions. The first research question used an independent samples *t* test, and the following two research questions used a one-way ANOVA. Results did not indicate a statistically significant relationship comparing the mean scores of the 11 influence tactics with teacher gender in the first research question, nor was there a statistically significant relationship in the third research question that focused on the difference in a teacher's years of teaching experience based on a principal's use of influence. The second research question compared the principal use of each of the 11 influence tactics from the retention rate at a campus and results showed two influence tactics with significant results.

Keywords: Influence Behavior Questionnaire (IBQ-G), coercive intensity, gender, influence, Texas, efficacy, downward, upward.

DEDICATION

I dedicate earning my doctorate degree to my family and friends who have supported me throughout this journey. Mom and Dad, you two have been pillars in my life and have always been my greatest motivators. You never let me give up on anything I do; you are always there to lend a helping hand and provide unconditional love. I am so blessed God gave me you as parents.

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CHAPTER I

INTRODUCTION

Retaining teachers each school year is an area of focus for educational leaders across the nation. This focus is due to the known point that finding qualified applicants who can support student learning is a challenge (Brown & Schainker, 2008). Retention also helps in resolving the teacher shortage issue (Van den Borre et al., 2021). When it comes to teacher shortages and turnover, Texas, other states around the nation, and the world are finding themselves in a similar situation (Dupriez et al., 2015). Teacher retention is defined as keeping staff in their teaching assignments (Wronowski & Urick, 2019). The problem is that not enough teachers are remaining in the profession causing widespread classroom vacancies in Texas public schools. According to Dupriez et al. (2015), high exit rates occur during the beginning years of teaching with only 60% of male teachers and 58% of female teachers remaining after five years of teaching. The decrease in teacher retention rates in Texas has led to an increase in new hires and principals; these vacancies burden the staff with the responsibility of conducting excessive interviews (TEA, 2021a). Wronowski and Urick (2019) revealed that teacher vacancies are a reality, and dissatisfied teachers are exiting the profession. Decreased teacher retention rates, not only negatively impact educational organizations when it comes to funding and student achievement (Wronowski & Urick, 2019), but also result in the hiring of unqualified teachers (Mendes & Aleluia, 2019).

There is a need for educational leaders to address this growing crisis to ensure students are well educated, which results in them graduating prepared for postsecondary education. National teacher retention data and findings throughout multiple school years support the assertion that teacher retention is an escalating issue (Olsen & Anderson, 2007). Using a

quantitative method, this study sought to understand how much a principal used each type of influence tactic, as defined in the Influence Behavior Questionnaire (IBQ-G) (Yukl et al., 2008), to provide insight into effective ways influences can be used to help increase teacher retention rates. Prior research focused on principal influence and its effect on culture, climate, and performance. This study built upon prior research and focused on principal support through influence tactics and their relation to teacher retention.

This study provided current data and information regarding principal influence and how it impacts teacher retention rates in Texas, as well as prior research between teacher gender and principal gender. Findings provided principals with information about what teachers say is most needed from principals to remain in the teaching profession. This chapter provides an overview of the statement of the problem, background and context, the study's purpose, the research question, the study rationale, the study's significance, assumptions and limitations, and definitions of terms.

Statement of the Problem

Brown and Schainker (2008) showed that 33% of new teachers leave the teaching profession within the first three years, and 50% of new teachers leave after the five-year mark. Eleven percent of U.S. teachers exit the teaching profession during their first year, and 39% of teachers exit during their first five years of teaching (Ingersoll, 2002). Texas ranks highest in spending, with over half a billion dollars spent on teacher turnover each year (Chambers Mack et al., 2019). Despite the spending attempts to increase teacher retention, teaching certificates earned by candidates in Texas decreased between 2016 and 2019, with 6,543 fewer Texas-certified teachers. Teacher retention averaged an 8% loss each year from 2016 to 2019 (TEA, 2021a).

The population most affected by teacher turnover is students. Texas public school student enrollment increased by 68,243 students between 2016 and 2021 (TEA, 2021b). The increase in student enrollment was not met with an increase in certified teachers. Teachers directly impact student behaviors, learning, and success (Grillo & Kier, 2021). According to Madigan and Kim (2021), a teacher's well-being and socioemotional functioning play a role in how effectively they can lead instruction and manage student behaviors. A teacher's ability to provide instruction and manage behaviors affects student outcomes, such as performance, as well as student experiences and motivation. Teacher burnout also impacts students and is known to pass from teacher to student (Madigan & Kim, 2021).

This study's focus was on principals' use of influence tactics and their impact on teacher retention rates, while also analyzing the significance of gender differences and the average years of teaching experience. This study is needed to provide findings that could potentially impact teacher retention rates and decrease the number of teacher vacancies. Understanding how teachers perceive principal influence to intervene and retain teachers is important. The study identified influence tactics principals can use to prevent turnover. The findings will help improve teacher retention by providing principals with information on influence tactics that teachers identify as reasons to remain in the teaching profession.

Background and Context

Dupriez et al. (2015) found that teacher exit rates are at an all-time high with the majority of exits happening during a teacher's first year. Wronowski and Urick (2019) reported that more than half of teachers exit before completing their fifth year in the profession. From 2019 to 2020, there was an increase of 5,806 certified candidates in Texas with a total of 26,098; only 82.34% of candidates were employed as a teacher (TEA, 2021a). The outcome is that 4,698 candidates

decided to not enter the teaching field, leaving a significant amount of teacher vacancies across Texas in 2020. Working conditions play a factor in teacher retention (Dupriez et al., 2015).

Teachers who feel they have ownership over their work and have administrative support consider their experiences as positive; these teachers are more likely to remain in their positions compared to those with opposite experiences (Wronowski & Urick, 2019).

Historical Perspectives

In the past, federal initiatives such as former President Obama's *Race to the Top* (RTT) were created in hopes that funding tied to student achievement would lead to higher teacher retention and would entice prospective teachers to enter the teaching field. However, RTT's impact on teacher retention was minimal, and teacher retention remained a major issue (Wiggan et al., 2020). Recruitment initiatives such as Troops-to-Teachers and Teach for America attempted to connect with prospective teachers (Ingersoll, 2001). Teach for America requires a two-year commitment with continuous professional development provided. This support system was all part of Teach for America's strategy to instill a desire to serve low-income school communities and improve educational institutions (Heineke et al., 2014). On top of recruitment initiatives, financial incentives include student loan forgiveness, tuition reimbursement, and housing assistance in addition to teacher sign-on bonuses being incorporated at school district levels (Ingersoll, 2001).

In 2001, the No Child Left Behind Act (NCLB) brought in federal accountability policies that decreased teacher autonomy and included policies that held teachers responsible for increasing student achievement (USDE, 2022; Wronowski & Urick, 2019). The pressure from NCLB's student performance expectations and accountability policies led to increased teacher stress and teachers exiting the profession (Darling-Hammond, 2007). Even with the numerous

local and national initiatives and policies, reaching prospective teachers remains a need. More importantly, retaining teachers remains a higher need.

Social Perspectives

Teacher shortages have led to many educational preparation programs lowering standards for candidates to qualify as a teacher. Teacher preparation programs are pipelines for developing highly qualified teachers that will conceivably result in lengthy teaching careers. The Office of Postsecondary Education reported there are 2,054 teacher preparation programs in the United States with 71% identified as a traditional program, 21% as an alternative program housed at a higher institution, and 8% identified as an alternative program not housed at a higher institution (Freeman et al., 2013). Teacher preparation program completers dropped from 85% in 2005 to 79% in 2008 (Freeman et al., 2013). The completion rate from each type of teacher preparation program shows that alternative certification program teachers leave the teaching profession at higher rates than traditional program teachers (Van Overschelde & Wiggins, 2019). Teachers with accredited teacher preparation programs are found to be more stable and committed to the teaching profession than those who did not complete an accredited teacher preparation program (Dupriez et al., 2015).

Before leading a classroom full of students, hands-on training for teacher candidates is an additional layer of teacher preparation. According to Goldhaber and Cowan (2014), teachers' preservice training satisfaction is an indicator of early-career attrition. Freeman et al. (2013) asserted that many teachers are not prepared and not properly trained in classroom management during their beginning years. Connections lie between the type of preservice training teachers receive and their likelihood of attrition. Previous research proves that the teaching profession is

not only faced with a challenge in teacher retention but teacher preparation program outcomes as well.

The nation's student enrollment in public schools continues to increase; the estimate of new teachers needed to maintain pace with current student enrollment is 1.5 million (Wiggin et al., 2020). In recent years concerns about teacher vacancies are similar to the experiences reported in the 1990s, with 50% of all teachers leaving the profession within their first five years (Wronowski & Urick, 2019). The 2018–2019 school year alone reported over 120,000 teacher vacancies nationwide (Wiggin et al., 2020). In 2022, the Texas Education Agency created the Teacher Vacancy Task Force to provide guidance, support, and resources to Texas schools to improve teacher retention. The task force was originally comprised of only educational administrators, but the Commissioner of Education later decided to incorporate a key voice and component. This key voice and component are teachers, and the task force now has 26 teachers (TEA, 2022a). Teacher retention research is of concern. If teacher retention continues to decrease, the educational system will be facing a crisis because it will be unable to provide quality instruction and opportunities to students.

Cultural Perspectives

The reality of teacher retention rates is complex in terms of belief, attitudes, and behaviors from educators and noneducators. Regarding belief, expectancy theorists claim followers are more motivated to be productive when there is a belief that successful tasks will lead down a path to a valuable goal (Johnson, 2018). Ezzani (2019) explained that principals who chose to share the instructional leadership role created a positive school culture where students could realize their potential and worth. When teachers have opportunity to provide input by participating in an instructional leadership team with their principal, their participation leads

to success and fulfillment—leading teachers to perceive that their role is essential, thus increasing the potential for teacher retention.

Shakoor and Farrukh (2018) found that the majority of teachers in their study had negative attitudes toward the teaching profession due to the working environment. Hiring and retaining teachers, with positive attitudes toward the teaching profession, is strongly recommended. This recommendation could potentially pose a challenge if prospective teachers do not value the profession or find it to be an attractive option. Viewing the teaching profession as unattractive (Dupriez et al., 2015) limits opportunities for prospective teachers to learn about the teaching profession from experienced teachers. For example, only 4% of Texas' high school students who chose education as a pathway at the secondary level continued with education as their focus in college (TPEIR, n.d.). A culture with non-respecting and non-valuing behaviors and attitudes potentially contributes to the decrease in teacher retention rates.

Lastly, commitment levels contribute to the teaching profession's culture. Research from Dupriez et al. (2015) found that teachers with less than seven months' commitment in their first year show a higher probability of exiting the teaching profession. Based on the stages of Fowler's (2013) policy development model, the best way to draw attention to an issue is to connect it to a real crisis. The lack of commitment is a component in the continuous decrease in teacher retention rates. Without a sufficient pipeline of teachers, the educational system will be lacking a significant resource which will erode the capability of providing quality instructional opportunities to students if the teacher retention rate problem continues.

Theoretical Framework

This study used the influence tactic theory developed by Yukl and Falbe (1990) to examine constructs associated with teacher retention rates in Texas. Influence tactics theory

focuses on working relationships because the theory surrounds approaches and tactics used to accomplish compliance and agreement behaviors from multiple positions (Liu et al., 2018).

Influence tactics were separated into two types. The first is a hard tactic, identified as disruptive and leading to a damaged relationship. The second type is a rational tactic, which involves a team approach with decision making, respect, and rewards (Chaturvedi et al., 2019). Influence tactics include rational persuasion, exchange, inspirational appeals, legitimating, apprising, pressure, collaboration, ingratiation, consultations, personal appeals, and coalition (Yukl & Tracey, 1992).

Dang et al. (2019) discussed the influence tactics theory and the communication tactic strategies that encourage member compliance. Yukl et al. (1993) focused on influence behaviors for understanding manager effectiveness and a manager's use of different tactics on members, peers, and superiors. This research was guided by the influence tactics theory; the study analyzed research that impacts principal-teacher relationships as well as overall teacher retention influence behaviors. Research and findings provided an understanding of manager effectiveness along with the focus on managers' use of different tactics to influence members, peers, and superiors.

Purpose of the Study

The purpose of this quantitative, nonexperimental, cross-sectional, descriptive design (Creswell & Creswell, 2018; O'Dwyer & Bernauer, 2013) study was to examine principals' use of influence tactics on teacher retention, as well as identify the differences found in gender and years of teaching experience within teacher retention rates. The focus of the study was to discover how much principals use each type of influence tactic, thus providing insight into effective ways influences can be used by principals to increase retention. This study targeted 1,151 teachers in five school districts that started with 784 zip codes in the greater Corpus

Christi, TX, area. The rationale behind choosing this specific region was that all five school districts are in the same city in Texas, which inadvertently leads to the districts competing for the same teachers.

Influence tactics were labeled as rational persuasion, exchange, inspirational appeal, legitimating, apprising, pressure, collaboration, ingratiation, consultations, personal appeals, and coalition. These 11 influence tactics were the dependent variables for the study. The four independent variables included the number of years a teacher remained at their current campus, years of teaching experience, participant gender, and principal gender. Data were captured via Influence Behavior Questionnaire (IBQ-G) submissions.

Research Questions

The research questions examined in this quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013) included:

RQ1: Is there a difference in principal's use of influence based on teacher gender?

RQ2: Is there a difference in teacher retention rates based on a principal's use of influence tactics?

RQ3: Is there a difference in a teacher's years of teaching experience based on a principal's use of influence?

For all research questions, the IBQ-G operationalized the 11 influence tactics as the dependent variables. Participant gender was the independent variable involved in RQ1. The number of years a teacher has remained at the current campus was the independent variable involved in RQ2. The years of teaching experience was the independent variable involved in RQ3. Principal influence tactics on teacher retention rates in Texas were examined through the

research questions. Each research question was unique and focused on different teacher components and their connections with principal influence tactics.

Rationale for the Study

This study was justified because half of the five school districts from the greater Corpus Christi, TX area with a 784 zip code showed a decrease of 17 teachers between the 2020-2021 and 2021-2022 school years under the 1-5 years teaching experience (TEA, 2022b). Teachers within the first five years are leaving their district causing retention rates to decrease. The fact that half of the six school districts reported a decrease leaves the Corpus Christi, TX area in need of teachers. All five school districts have the potential to benefit and learn from the study findings.

Requesting all teachers complete the IBQ-G allowed for a high probability of response. A 20% completion rate from the 1,151 total teachers allowed for $n = 230$ surveys to be used as the study's sample size. The participant sample size, 230, met the 100 minimum sample size, which provided meaningful results (Bullen, 2022). Convenience sampling was the chosen type of sampling for this research; teacher samples were completed based on convenience and availability (Creswell, 2021).

Significance of the Study

This study's focus on principal influence tactics fit within prior principal support research—specifically, principal support with teacher retention. Brown and Schainker (2008) found that the more support teachers experience, the lower the likelihood they will leave or change schools. This study's academic research contribution included identifying the most commonly used influence tactics by principals that lead to retention of teachers in the profession.

Identifying influence tactics lead to this study's practical contributions, which included principals learning the influence tactics teachers identify with the most. These tactics contribute to teachers remaining in the teaching profession, as well as findings specific to teacher gender and the number of years in their positions. This study added value to the profession because there will be fewer vacancies to fill if more teachers choose to remain in the teaching profession. The decrease in teacher vacancies will lead to more students being educated by qualified teachers, minimizing gaps in student learning, and a more educated state.

Assumptions, Limitations, and Delimitations

Assumptions, limitations, and delimitations were identified in the study. This study involved two assumptions. The first assumption was that participants would be honest when responding to the survey. The second assumption was that participants would understand the research purpose and would use that understanding to respond appropriately to the survey. This study involved one limitation—participant response rates. Two delimitations were involved. The first delimitation included in this study was the requirement for teachers to be assigned to one of the districts from the greater Corpus Christi, TX, area with a 784 zip code. The second delimitation was the use of convenience sampling; the study results cannot be generalized due to the sample not being randomized. A future study may include teachers from school districts outside of Corpus Christi, TX.

Understanding the assumptions, limitations, and delimitations will be needed to ensure enough time is available to conduct and complete a quality study. Preparing mitigation strategies ahead of time will assist with time and ensure a quality study. All efforts will be made to ensure the data collection, practices, and analysis are conducted ethically and with a quality-driven approach.

Definition of Terms

The following definitions represent standard definitions found in the literature. The essential terms of this study included:

- *Coercive intensity*: The extent to which the person who is on the receiving end of the influence believes that noncompliance will end with consequences (Venkatesh et al., 1995).
- *Gender role*: Congruent behavioral norms dependent on the order amongst the gender of the actor (Smith et al., 2013).
- *Hard-coercive tactics*: Pleas and threats (Lai, 2009).
- *Influence tactics*: Approaches and tactics to accomplish compliance and agreement behaviors from multiple positions (Dang et al., 2019).
- *Noncoercive tactics*: Exchanging information, requests, and recommendations (Lai, 2009).
- *Soft-coercive tactics*: Recommendations and promises (Venkatesh et al., 1995).
- *Teacher influence (upward)*: Behaviors that result in improvements in a leader's effectiveness (Wong, 2017).

Summary

Texas experienced an increase in teacher shortages, leaving students without a qualified teacher. This phenomenon led to teacher retention averaging a loss of 8% each year between 2016 and 2019 (TEA, 2021a). This quantitative grounded theory study sought to understand principal perceived use of influence tactics and its impact on teacher retention rates, along with any differences within teacher gender and the years of teaching experience. The study's purpose

was to identify principal influence tactics that are associated with a teacher's choice to remain in the teaching profession.

A quantitative, nonexperimental, cross-sectional, descriptive design (Creswell & Creswell, 2018; O'Dwyer & Bernauer, 2013) was used to answer the research questions. A quantitative research method supported this study because it directly aligned with this study's research questions (Creswell & Creswell, 2018). The use of IBQ-G with 11 influence tactics was the instrument used to collect data. The results of this study have the potential to provide principals with insight into effective ways to influence teachers to positively impact teacher retention rates.

The remaining chapters include literature surrounding the study's focus. Also included is the research methodology and design, the actual research that will be conducted, study findings, and interpretation of the findings. Chapter II includes a comprehensive review of principal influence, gender influence, teacher influence, coercive intensity, hard-coercive tactics, soft-coercive tactics, and noncoercive tactics literature.

CHAPTER II

LITERATURE REVIEW

The following literature review centers on Texas teacher retention and the topics of principal influence, teacher influence, influence and coercive intensity, and coercion in schools as related to teacher retention. These potential factors tied to teacher retention and the influences associated between principals and teachers are needed to improve teacher retention. To provide a better understanding, Ingersoll (2003) stated that the teaching profession represents 4% of the entire civilian workforce. Wiggan et al. (2020) reported that in the 2018–2019 school year alone there were over 120,000 teacher vacancies nationwide and that the nation’s student enrollment is continuing to increase. This means an estimated 1.5 million new teachers are needed. Past initiatives such as former President Obama’s RTT were created in the hopes that funding tied to student achievement would lead to higher teacher retention and entice prospective teachers to enter the teaching field. In the end, these initiatives have had very little impact, and teacher retention remains a major issue (Wiggan et al., 2020).

Influence tactics theory provides information surrounding working relationships because it involves approaches and tactics used to accomplish compliance and agreement behaviors from multiple positions (Liu et al., 2018). Teacher experiences are formed and led by principal influence with each experience holding a meaning. By the end of the school year, a collection of experiences and meanings are formed and used by teachers when deciding whether to leave or remain in the teaching profession. Principals, who communicate expectations effectively and affirm and recognize teachers’ efforts and accomplishments, contribute to a teacher’s self-efficacy (Van Der Vyver et al., 2020).

The literature includes studies that reveal effective principal influences and commonalities within teacher experiences and teachers' reasons for remaining in the teaching profession. An additional strength within the literature is that principal influence is broken down into gender influences and the effects within the principal role. Berkovich (2017) explained that there are gaps in the literature regarding influence, which includes the role and the effects on gender and on principal-teacher relationships. This identified gap regarding principal gender effects was one of the foci of this study.

Today's principals and teachers are experiencing a new reality with today's educational system's expectations and guidelines. Ezzani (2019) noted that many principals continue to use older methods and approaches instead of a shared instructional leadership role, which results in a positive school culture for all. Leaders from all types of occupations have the potential to learn about contributing factors regarding influence tactics between principals and teachers that lead to self-efficacy, retention, and coercion. This point supports the need to learn factors in teacher retention rates in Texas and the influences associated with and between principals and teachers. The study identified successful key components within teacher and principal influences, along with addressing gaps in influence tactics theory. The knowledge learned will assist with understanding how to prevent teacher turnover.

The Texas A&M-Corpus Christi Mary and Jeff Bell Library was used to collect peer-reviewed journal articles about teacher retention, teacher vacancies, principal influences, teacher influences, coercive intensity, influence tactics theory, gender influence, and principal preparation programs. The searches were narrowed to the last 10 years. This chapter contains a theoretical analysis identifying one theory, rationale, a review of the literature, and a summary section.

Theoretical Framework

A theory is an explanation of observations with the goal of explaining a relationship between actions (Patten & Newhart, 2017). To educate the public, a theory must be able to be shared in everyday conversation (Hooks, 1994). Research shows that teachers are the primary influence when it comes to improving student achievement, yet the teacher workforce is declining (Han, 2020). The rate of teachers leaving the teaching field each year was close to 8% and teachers with fewer than five years in the field showed a rate between 19% and 30% (Pressley, 2021). Retaining quality teachers continues to be a challenge in Texas. Recruitment and retention incentives often include sign-on bonuses and financial incentives, but the interpersonal aspects between teachers and principals. These factors continue to play a major role in teacher satisfaction, behavior, and retention. It is important to note that today's workforce consists of diverse cultures, value orientations, personality traits, and other individual differences (Fein & Tziner, 2021). In this study, one theory was used to analyze constructs and factors connected to principal-teacher relationships that lead to teacher retention. Influence tactics theory, developed by Yukl and Falbe (1990), provides an understanding of principal-teacher relationships and the impact on retention.

Influence Tactics Theory

Influence tactics theory is closely related to leader-member exchange theory (Lee et al., 2017). Influence tactics theory emphasizes leveraging approaches and tactics to accomplish compliance and agreement behaviors from multiple positions. Influence tactics play a role in buyer-seller relationship management, focusing on communication strategies that encourage buyer compliance (Dang et al., 2019). Chaturvedi et al. (2019) explained there are two different influence tactics. One is a hard tactic that is disruptive and leads to a damaged relationship. The

second is a rational tactic that involves a team approach to decision making, respect, and rewards. Influence tactics also have the potential to be used by members or followers, which can lead to impact and change.

Influence tactics used by managers have been explored by many researchers including Ansari and Kappoor (1987) and Kipnis et al. (1980). Yukl et al. (1993) focused on influence behaviors for understanding manager effectiveness, as well as managers' use of different tactics to influence members, peers, and superiors. Influence tactics include rational persuasion, exchange, inspirational appeals, legitimating, apprising, pressure, collaboration, ingratiation, consultations, personal appeals, and coalition. Each influence tactic is independent and a distinct form of influence behavior (Yukl et al., 1993; Yukl & Falbe, 1990).

Influence tactics theory can stand alone but is commonly used in combination with other theories and regularly with the leader-member exchange theory (LMX) (Bhal & Ansari, 2007). A culture where members are influenced and productive is created through a leader's ability to use influence tactics effectively (Kipnis et al., 1980). A leader influencing subordinates is a common approach to social influence (Bhal & Ansari, 2007). On the other hand, the quality of LMX has the potential to inform those being influenced of strategies they can use, in turn, to influence a leader (Williams et al., 2016). Much of LMX research is from the members' lenses (Thrasher et al., 2020) with influence tactics being used by educational administrators in school settings with the goal of achieving change.

Pressure Tactics

Pressure tactics are seen as less effective; they include threats and warnings to get members to agree or comply with a leader's wishes (Mahajan & Templer, 2021). Pressure is achieved through frequent checking in and persistent reminders (Yukl et al., 1993). Pressure is

considered a hard type of tactic, and members' resistance is due to the negative relationship experience with the coercive and manipulative leader (Mahajan & Templer, 2021). The desire to be considered likable or soft-hearted is not a concern for those who use pressure tactics, and it often leads to interpersonal hostility (Cable & Judge, 2003). Yukl and Falbe's (1990) questionnaire defined pressure tactics as the use of demands, threats, or intimidation in an assertive manner.

Upward Appeals/Influences

The upward appeals process is an influence used by members toward their leaders. This type of influence is connected to behavioral and perceptual changes and organizational effectiveness (Wong, 2017). People chose influence in attempt to achieve a personal goal (Lee et al., 2017). The leader and member relationship and interactions dynamics are crucial factors in upward influence (Wong, 2017). Yukl and Falbe's (1990) questionnaire defined upward appeals as the use of persuasion. A higher authority makes a direct request, which is approved, to gain compliance.

Exchange Tactics

Mahajan and Templer (2021) explained that exchange tactics rely heavily on the leader's interpersonal style and leadership skills. Exchange tactics are intermediate tactics and are not considered solely soft or hard. These tactics involve the leader offering something to the member in return for commitment to fulfilling the leader's request. Yukl and Falbe's (1990) questionnaire defined exchange tactics as an explicit or implicit promise that will result in a reward or benefit after compliance. Exchange tactics also involve the reminder of a prior agreement to secure compliance.

Vermeulen et al. (2020) informed that high-exchange relationships are built on trust and respect, and employees strive for higher quality in work performance. In contrast, low-exchange relationships involve low-quality work performance and minimal expectations. An exchange is considered high quality when each member of the exchange views it as fair and equitable (Williams et al., 2016).

Coalition Tactics

Yukl et al. (1993) explained that the coalition tactic includes individuals partnering with others to influence and achieve commitment and agreement from a specific group. Individuals have the potential to synergize into groups of people by using group persuasion, which is defined when the target or follower decides to agree and go along with the group consensus. Lee et al. (2017) explained that coalition tactics are not considered useful and rarely lead to the development of strong and healthy relationships due to the forcefulness behind the tactic. Low commitment and high resistance are components that lead to their ineffectiveness. Yukl and Falbe's (1990) questionnaire defined coalition tactics as a person using support from others to persuade.

Ingratiating Tactics

The ingratiation tactic is commonly used in the early stages of influence and usually experiences limited success when it appears insincere (Yukl et al., 1993). Research by de Clercq et al. (2019) explained that members use ingratiating tactics to impress leaders. The impressions lead to positive assessments and experiences for members. Even if the experience or assessment is not in the member's interest, the member is concerned with agreeing with others and receiving compliments and praise. The ingratiating tactic is considered an assertive tactic. The use of friendly and helpful behavior, combined with flattery, leads to a state of mind that makes

agreeing and complying more likely (Yukl et al., 1993). Cable and Judge (2003) defined ingratiation as an assertive tactic to gain the approbation of an audience that controls significant rewards. Yukl and Falbe's (1990) questionnaire defined ingratiating tactics as a person trying to get another person in a positive mood before making a request.

Rational Persuasion

Rational persuasion uses legitimate arguments accompanied by facts and data to persuade others (Yukl et al., 1993). Wong (2017) added that rational persuasion is the most used influence behavior by leaders. Liu et al. (2018) explained that rational persuasion involves an exchange of information, recommendations, and actions that are then internalized and deemed reasonable. Rational persuasion is more likely to be used when a member or target is viewed as participative (Cable & Judge, 2003). Yukl and Falbe's (1990) questionnaire defined rational persuasion as a person using logical arguments and evidence to support a proposal or request.

Inspirational Appeals

Mahajan and Templer (2021) explained inspirational appeals as situation when a leader or administrator attempt to appeal to the values and emotions of those they serve, with the goal being an increase in enthusiasm and desire for accomplishment. This effective and soft tactic is common in high-quality relationships between leaders and members. There are also respect and value commonalities between leader and member. Wong (2017) asserted that inspirational appeals elicit strong emotions by tying a personal value or idea to a request. Liu et al. (2018) described inspirational appeals as an emotional tactic with the goal to identify and satisfy a person's psychological need. Inspirational appeals are most used by those who identify as extroverted (Cable & Judge, 2003). Yukl and Falbe's (1990) questionnaire defined inspirational

appeals as a person making a request that contains emotional support that appeals to another person's ideals. Inspirational appeals increase a person's enthusiasm.

Consultation Tactics

A consultation tactic is when a leader involves members in the strategizing process, activity, or change projects. Members play an active role, are more committed, and take ownership of tasks. Member input and concerns are all part of the decision-making process (Mahajan & Templer, 2021). Yukl et al. (1993) added that a leader is more open and willing to suggestions and concerns that end up leading to changes in the initial proposal. Yukl and Falbe's (1990) questionnaire defined consultation tactics as a person who seeks participation from others in the implementation's decision-making processes and planning stages.

Each influence tactic is distinct, independent, and unique. Leaders often rely on influence tactics to get things done, but it is important to note that successful use of a tactic relies on the ability to effectively influence others (Cable & Judge, 2003). Information surrounding the differences and similarities between each of the tactics, along with background information specific to the introduction of additional influence tactics, provides knowledge and understanding to those involved with influence tactics. Leaders using influence tactics will be able to make a more educated decision when it comes to choosing one or more of the tactics that will increase influence and success.

Rationale

Influence tactics' approaches and strategies involve communication components that make up the foundation for the mutual exchanges between teachers and principals and lead to relationships (Almazrouei et al., 2020). Influence tactics have the potential to provide insight into why teachers leave the teaching field. The focus is on relationships, communication components,

approaches, and strategies. Based on relationships and communication experiences with principals, a teacher's job satisfaction and fulfillment come into question and assist in the teacher's decision-making process. Gathering data about principal-teacher relationships and communication components will assist with identifying reasons teachers leave the teaching profession along with offering learning opportunities for current and future principals and educators. In addition, gathering data on principals' use of influence tactics and how the tactics influence a teacher's choice to remain or leave the teaching field will assist in identifying the most effective influences that lead to increased teacher retention.

Review of Literature

Creswell and Poth (2017) explained that the entire research design process is a logical sequence that connects the empirical data to a study's initial research questions, which ultimately leads to conclusions. Understanding the definition of teacher retention and contributing factors, such as influence tactics, to teacher retention are some components of this study's research design. Simply stated, teacher retention is keeping teachers teaching students in classrooms (Kelchtermans, 2017).

When compared to 46 states, Texas has the fourth highest turnover rate (DiSchiano, 2017) with the attrition rate throughout all Texas school districts plummeting to its lowest rate in five years at 13.91% (TEA, 2021a). Teacher turnover disrupts essential educational processes and threatens the education system (Kelchtermans, 2017). By 2030, more than 69 million new teacher recruits will be needed worldwide. Without immediate and sustained changes to the course of this trajectory, a severe threat to the teaching profession is looming (Madigan & Kim, 2021). A study by Van den Borre et al. (2021) showed that 45% of U.S. teachers leave the profession within their first five years; a large portion of these vacancies are in secondary

education. The data provides insight into the problem of practice and the purpose of the research. Studying current teacher retention trends in addition to learning how Texas can improve practices and procedures will help increase teacher retention, which in turn ensures that teacher vacancies are filled.

Yukl and Falbe (1990) provided eight different influence tactics principals can adopt to support and influence teachers to remain in their jobs. The eight influence tactics are grouped into three categories that include noncoercive, soft-coercive, and hard-coercive (Venkatesh et al., 1995). Elements involved in teacher retention include principal influence, teacher influence, coercive intensity, noncoercive tactics, soft-coercive tactics, and hard-coercive tactics. This review of literature addressed principal influence; teacher influence; and noncoercive, soft-coercive, and hard-coercive influence. Additional points were included that summarize the literature regarding teacher retention and principal influence. It is important to note that the terms tactics and strategies are used interchangeably throughout the research.

Al-Mahdy et al. (2018) studied past leadership, principal influence, and teacher retention using a quantitative method. Al-Mahdy et al. (2018) examined how the instructional leadership skills of school principals are associated with efficacy and teacher commitment. The study included three instruments with findings revealing that the instructional leadership of the principals was positively associated with collective teacher efficacy and teacher commitment. Price (2011) researched attitudes among principals and teachers that create a certain atmosphere that leads to commitment and satisfaction. Price (2011) conducted a quantitative study using structural equation modeling through principal and teacher surveys with Likert-type scale questions. Study findings showed that principals' commitment levels were affected by the relationships they establish with their teachers. An additional quantitative study by Van Der

Vyver et al. (2020) used a quantitative survey design rooted in the postpositivist paradigm. The Institute of Work Psychology Multi-Affect Indicator and the Multifactor Leadership Questionnaire were used as data collection instruments. Findings revealed a relationship between perceived leadership behavior and teacher well-being. A common finding between Al-Mahdy et al.'s, Price's, and Van Der Vyver et al.'s (2018) quantitative studies was that principals' actions and behaviors positively affect and influence teacher satisfaction and commitment levels.

Principal Influence

The roles and responsibilities of principals in today's schools are constantly changing and evolving (Reid, 2020). A principal is the main leader of teachers at a school, and their behaviors have a strong influence on teachers' attitudes (Berkovich, 2017). According to Reid (2020), principals are the second most influential school-based factor that positively impact outcomes in student achievement, attendance, and graduation. Not only do principals have strong influences, but they are instrumental in carrying out and improving a campus's mission and vision (Murakami & Törnsten, 2017), all while navigating through different levels of pressure and being expected to satisfy stakeholders (Gill & Arnold, 2015).

The objective of leadership is to facilitate and influence others to come to a common understanding, decide on a plan of action, and implement the steps necessary to accomplish the common goal (Yukl, 2008). Gorsky et al. (2017) explained that leadership involves "mobilizing a collective to act" by deploying various discourses that shape the meaning of what the leader needs to accomplish in addition to motivating members to act per those needs (p. 2238). Yan-hong and Zhang (2010) explained that leaders with high levels of leadership effectiveness are more likely to hold high cognitive complexity. The association between cognitive complexity and leadership effectiveness is more significant when the level of organizational and

environmental complexity are high. Riggio et al. (2013) viewed leadership intelligence as a multidimensional concept with seven constructs of intelligence that build upon one another as a successful and positive framework. The seven constructs of intelligence include strategic, relational, cultural, entrepreneurial, reflective, pedagogical, and heuristic.

A principal's leadership intelligence contributes to the understanding of influence tactics. The understanding of influence tactics then leads to choices regarding the utilization and adoption of influence tactics with teachers regarding retention. A principal, whether working with an experienced or new teacher, needs to analyze the probability of teacher success (Cheng, 2014). Principal support is tied to work climates, cultures, and relationships that are created using influences. A positive climate is understood to be an environment in which the entire school community prospers (Price, 2011). It is essential for campus leaders and staff to take a team approach to establish common beliefs, attitudes, and actions—resulting in strategic plans that support schools, teachers, students, and the workplace culture (Ezzani, 2019). Support and partnerships with teachers during decision-making situations help limit the pressures faced by teachers (Wronowski & Urick, 2019). Successful strategies and plans of action are created when a working environment encourages risk-taking amongst team leaders and members, especially when the risk is aimed at school improvement. When trust is established, individuals feel confident in being risk-takers; high levels of satisfaction among school personnel are often found (Price, 2011). Schools with administrative support, mentoring programs at early career stages, and opportunities for networking and cooperation all experienced lower attrition rates when compared to schools without these features (Toropova et al., 2020).

Principal use of influence tactics and strategies takes on multiple forms. The interpretation and meaning of influence and support can change depending on the subjects

involved with social exchanges between leaders and followers. Varying types of relationships form based on the exchanges (*What Have We Learned*, 2018). Principals affect and influence those they serve. Principals have the potential to enhance support, cohesion, and trust through relationships (Price, 2011). Principals can facilitate and promote enhanced support, cohesion, and trust by ensuring power distance is small and that individuals, regardless of their position, are included in the decision-making process (Roth & Schwarzwald, 2016). There is a great amount of potential within the principal role, but Gill and Arnold's (2015) finding indicated that many principals feel alone and reported dealing with a lot of responsibility. Researching the effectiveness of principal influences and the differences between positive and negative forms of influence is beneficial because they provide teacher insight, which can lead to a better understanding of teacher retention. Understanding teacher retention in conjunction with studying individual influence tactics used by principals can lead to improvements within the education system and in teacher retention rates.

Gender Influence

In findings regarding the relationship between influence tactics and workplace outcomes, Smith et al. (2013) focused on the variable of gender. Cheung et al. (2016) explained that a person's sex is determined by biological and genetic distinctions. A person's gender is based on psychological and behavioral aspects associated with these biological distinctions. Men and women differ in numerous ways when it comes to leadership approaches—there are definite differences in how and the degree to which they lead (Shaked et al., 2018).

Smith et al. (2013) explained that gender-congruent influence tactics lead to people feeling comfortable and receptive to the influence efforts used. Marvel (2015) found that teachers are more satisfied and less likely to leave their jobs when the principals they work for

are of the same gender. Leaders, such as principals, who choose to not use gender-congruent influence, may experience challenges and nonacceptance (Smith et al., 2013). Gender expectations arise because men and women are associated with predetermined societal roles that include specific skills with power (Roth & Schwarzwald, 2016).

Gender inequalities are present in the field of educational leadership; often, male-generated theories with traditional concepts cast in a masculine model dominate the education landscape. (Gill & Arnold, 2015; Murakami & Törnsen, 2017). Berkovich (2017) showed that trust, both affective and cognitive, was higher and present when people of the same gender filled the role of a principal and the role of a teacher. An increase in trust was an outcome of gender similarity. Additional results found that cognitive trust in principals lead to a decrease in teachers' continued commitment to school. These findings work against the goal of increased teacher retention.

Female Principals

Women dominate teacher positions, but this representation differs in leadership positions (Murakami & Törnsen, 2017). Female teacher experience was found to be less valued in the bureaucratic and educational workspaces, in particular secondary educational principal roles have less female representation in many countries (Shaked et al., 2018; Murakami & Törnsen, 2017). Berkovich (2017) explained that women predominantly filled primary educational principal roles. When women are campus leaders, female teachers feel empowered working with female principals, whereas male teachers feel less powerful. Marvel (2015) revealed that female teachers were willing to work an average of .58 hours more overtime when working for female principals. Female leaders constantly face stereotypes (Murakami & Törnsen, 2017); they are

recognized more when they adhere to social norms and are relationship-oriented (Cheung et al., 2016).

Shaked et al. (2018) revealed that female principals consistently score higher in ratings compared to their male counterparts in the context of instructional leadership, and this difference in ratings was considered a significant gender effect. Cheung et al. (2016) found that women receive positive ratings at their jobs in the use of influence tactics only when their actions conform to gender expectations instead of traditional masculine tactics such as self-promotion and assertiveness. Women may have higher approval ratings, but this is met with challenges. Negative experiences, such as exclusion, are reported to be associated with outcomes when women are at odds with the norms of the dominant group (Cheung et al., 2016). Female principals were more frequently asked for assistance and listen to more complaints than their counterparts because they are seen as approachable (Gill & Arnold, 2015). Marvel's (2015) showed that female principals work an average of 59.4 hours per week, which is two hours more than their counterparts. The study suggested the reason for more hours is due to female principals desiring to gain respect from all teachers. The history and statistics tied to female principals provide insight into the influences linked to teacher retention.

Male Principals

Males dominate leadership roles in industries, military, and school leadership (Berkovich, 2017; Cheung et al., 2016; Murakami & Törnsten, 2017; Smith et al., 2013) and occupy the majority of positions of power (Smith et al., 2013). Educational communities, media outlets, and the general public view leadership roles as masculine; there is an expectation that these roles will be filled by men (Gill & Arnold, 2015). Even with men dominating many fields, both men and women enter their field of work with fresh and new perspectives. New male principals initially

use formal conduct and behaviors; these behaviors differ from women in traits and values but given time and experience their conduct and behavior become more unique and personalized (Berkovich, 2017). Gill and Arnold (2015) stated that men move up in rank into leadership roles faster than women. Roth and Schwarzwald (2016) reported that male managers regularly use harsh tactics such as close supervision, limiting employee freedom, and not including employees in decision-making processes when they disagree.

Male principals' impact the students they serve, especially students who do not have father figures. Gill and Arnold (2015) contended that it is important for principal roles to be filled by men to ensure students are exposed to father figures in school settings. As for trust, affective trust in male principals from female teachers increases with time and commitment, but male teachers historically have elevated levels of trust in male principals (Berkovich, 2017). Zeinabadi (2013) argued that men are less influential toward subordinates or organizational-related outcomes. Marvel (2015) revealed that 5.4% of male principals identify good work habits from teachers as most important. The historical context and statistics connected to male principals' leadership provide insight about influences relationship with teacher retention.

Upward Teacher Influence

Williams et al. (2016) noted that relatively limited attention has been given to upward influence attempts in leadership literature. Tactics employed in upward influence attempts include assertiveness, exchange, ingratiation, sanctions, rationality, upward appeal, blocking, and coalitions. Upward influence tactic choices depend heavily on the leadership style of the supervisor (Cable & Judge, 2003); the use of upward influence behaviors results in improving leaders' effectiveness (Wong, 2017). Williams et al. (2016) concluded that there is a limited amount of research surrounding the effects of LMX on upward influence strategies.

Teacher Self-Efficacy

Influence tactics are not only used by people in leadership roles and positions. A teacher's view of their self-efficacy contributes to their own use of upward appeals and influence tactics on principals. Williams et al. (2016) argued that employees utilize different upward influence strategies based on their exchange relationship experiences with supervisors.

Huang et al. (2019) informed that self-efficacy is a personal assessment of competence and contextual resources/constraints and referred to the extent of an individual's belief in themselves. Information regarding personal belief confirms Rabaglietti et al.'s (2021) findings about self-efficacy taking on a protective role and having a positive influence that can assist in reducing stress associated with work overload, students' behavioral problems, lack of control, and a lack of purpose. Self-efficacy also enhances people's motivation to effectively seek and use more resources when dealing with stressful situations (Rabaglietti et al., 2021). Through people's motivation comes goal-related performance accomplishments, which have intrinsic and extrinsic rewards correlated to work satisfaction (Granziera & Perera, 2019). A teacher's self-efficacy is linked to a teacher's view and assessment of task requirements and personal competence (Huang et al., 2019). A teacher's view and understanding of their self-efficacy determine the use and quality of upward appeals.

Van Der Vyver et al. (2020) defined professional well-being as a person's individual view of the qualities needed for professional tasks. Personal accomplishment signals to what extent teachers accomplish personal work goals, tasks, and feel effective as educators (Oberle et al., 2020). Professional well-being refers to positive emotions toward self-efficacy and job satisfaction. Positive emotions felt by a teacher are a factor in a teacher's well-being and

potentially lead to a teacher choosing to remain in the teaching profession (Van Der Vyver et al., 2020).

The teacher's role involves numerous expectations that include being a lifelong learner, who are devoted to professional development, collaboration, diversity, and inclusion (Van den Borre et al., 2021). Stress attributed to teacher expectation leads to stress levels experienced by teachers affecting personal assessment outcomes and overall self-efficacy. In the United States, 46% of K–12 teachers reported high levels of stress at their workplace every day (Oberle et al., 2020), with previous research indicating that teachers are dissatisfied with working conditions that include assessments and accountability measures (Wronowski & Urick, 2019). Classroom management, workload, lack of preparation, and policy changes are just a few elements that lead to a teacher's stress level, state of mind, and professional well-being. A work-related depressed mood can be understood as a state of mind resulting from the inability to resolve work-related stress (Ramberg et al., 2019). Teacher activities that have proven to limit or reduce work-related stress include journaling and writing in a diary (Kelly et al., 2020). The prosocial classroom model theory proposed that teacher well-being and socioemotional functioning influence the capacity of teachers to effectively lead educational instruction and manage classroom behaviors (Madigan & Kim, 2021).

Teacher identity is a component of teacher self-efficacy. A teacher's view and understanding of their teacher identity play a role in the decision to remain in the classroom or depart from the teaching profession. Beauchamp and Thomas (2009) explained identity as an ongoing process—new contexts equal new experiences. Identity experiences are fluid due to development, construction, formation, creation, and building. There are also similarities between identity and the self; the emotional element in shaping identity, stories, and discourse; reflection

in shaping identity; the connection between identity and agency; and the contextual factors that promote or hinder the construction of identity (Beauchamp & Thomas, 2009). Identity is not linear or singular but is complex and multidimensional because of the intersections of identities. The intersections of identities complicate roles, responsibilities, values, and perspectives (Ramlackhan et al., 2021). Teachers' perceptions and definition of teacher identity vary due to experiences (Beauchamp & Thomas, 2009). Shared decision making is one example of teacher experiences that involves multiple stakeholders and is a practice and process many teachers desire to have in their jobs (Brezicha et al., 2019). Principals, who provide shared decision-making opportunities and use consultation tactics with teachers, often empower teachers with a sense of ownership and commitment to the teaching profession. This type of leadership is instrumental in improving teacher job satisfaction (Ingersoll, 2003).

Failure has been an underexplored area of research but has the potential to shape preservice teachers' future-oriented identities and provide the opportunity to build personal resilience. The understanding of failure experiences is determined by a person's mindset (Lutovac & Assunção Flores, 2021). A more in-depth and complete understanding of teacher identity within self-efficacy has the potential to identify factors involved in teacher retention.

Teacher stress and identity are two factors included in the makeup of a teacher's self-efficacy and ability to use upward appeal influences, but it is important to note that a principal's leadership approach and decision-making process also affect a teacher's self-efficacy. Lambersky (2016) explained that principal decisions that affect a teacher's self-efficacy include assigning and providing specific teacher professional development and the creation of teachers' work schedules. Training for principals on the teacher self-efficacy topic, along with information surrounding teacher stress and identity, has the potential to provide principals with a process

when deciding on the most effective influences for teachers. Furthermore, a teacher's view and understanding of their self-efficacy determine the quality of upward appeal influences.

Coercive Intensity

Venkatesh et al. (1995) and Frazier and Rody (1991) sorted influence tactics according to the extent to which they are coercive, hard-coercive, soft-coercive, or noncoercive (as cited in Plouffe et al., 2014). Coercive intensity indicates how a member or target of influence believes their noncompliance will lead to consequences (Venkatesh et al., 1995). Coercive tactics are introduced with escalating severity (Tomaszewska et al., 2021). The use of influence tactics categorized into labels like noncoercive, hard-coercive, and soft-coercive is not commonly referenced and studied in the educational system. These terms and categories are found in the business, military, health, and sales fields. This difference may be due to the terms having a negative connotation in the education field. Influence tactics can lead to positive relationships and success when used appropriately but can also lead to harm and hinder success when used inappropriately (Roth & Schwarzwald, 2016). According to Liu and Qu (2019), additional research is needed to better understand how cultural values affect relationships, including influence tactics within working relationships.

Hard-Coercive Tactics

The hard-coercive tactic category includes the pressure influence tactic. Hard-coercive tactics consist of threats and pleas. People with significant power tend not to use hard-coercive tactics because their use leads to a lack of respect and erodes power. Large working groups are less likely to use hard-coercive tactics (Venkatesh et al., 1995). When hard-coercive tactics are used, this category of tactic leads to resentment and injustice (Liu & Qu, 2019). People who are

the target of hard-coercive influence tactics experience severe and undesirable consequences with noncompliance (Liu & Qu, 2019).

Lai's (2009) findings revealed that retailers use hard-coercive tactics when they depend heavily on suppliers. The dependence on suppliers leads retailers to adopt more hard-coercive strategies and fewer noncoercive strategies. Hard-coercive tactics should be used only when retailers fail to comply with the supplier's requests (Lai, 2009). Liu and Qu (2019) found that hard-coercive tactics destroy the effectiveness of noncoercive and soft-coercive influence tactical combinations and can become a threat to those involved.

Hard-coercive tactics wielded by leaders can potentially be identified as a form of bullying. Bullying is using bullying behaviors to mistreat others causing the recipient to feel discomfort. Bullying consists of different levels of severity. The principal's approach, with the meaning they place behind their support and influence, is what will be internalized and then categorized by a teacher. Ultimately, principal bullying can affect a teacher's dedication (Klein & Bentolila, 2018).

Soft-Coercive Tactics

The soft-coercive tactic category includes exchange, coalition, ingratiation, and inspirational influence tactics. Soft-coercive tactics consist of recommendations and promises and are also one of the most frequently used tactics (Venkatesh et al., 1995). People, who are the target of soft-coercive influence tactics, have a moderate degree of understanding that they will experience undesirable outcomes through noncompliance, be subject to little or no punishment, and have a higher procedural justice perception (Liu & Qu, 2019).

Plouffe et al. (2014) concluded that successful salespeople utilize soft-coercive influence tactics the majority of the time but are trained to know when and how to apply pressure through

the form of threats that effectively close deals. Liu and Qu (2019) noted that managers are encouraged to use soft-coercive influence tactics because they effectively boost job satisfaction and limit undesirable employee behaviors. Using soft-coercive tactics gives employees more respect, care, and power from the managers.

Noncoercive Tactics

The noncoercive tactics category includes rational and consultation influence tactics. Noncoercive tactics involve request and information exchange. People in positions of power are less likely to use noncoercive tactics, but those in a member or follower role are more likely to use noncoercive tactics. Greater use of noncoercive tactics is found in large groups and is one of the most frequently used tactics (Venkatesh et al., 1995). With this particular influence, people who are the target of noncoercive influence tactics understand that noncompliance does not result in negative consequences (Liu & Qu, 2019).

Goodman-Delahunty and Martschuk (2018) studied the effectiveness of noncoercive tactics within interviews and found that 56% of noncoercive tactics are connected to cooperation. Lai (2009) focused on relationships between firms and retailers and found that influence strategies are less extreme. The use of noncoercive influence strategies increases when there are shared norms and values. Liu and Qu (2019) showed that noncoercive influence tactics, such as a proper job fit, have a greater impact on job satisfaction than soft-coercive influence tactics.

Further Studies

An area not covered in the literature review that will be included in the study is principal turnover. In Texas 30% of principals in the public school system decided to leave the principal profession after just one year. Research shows it can take five to seven years for a principal to improve a school (Snodgrass Rangel, 2017). There is a need for additional research to determine

specific professions teachers choose after leaving the teaching profession or whether teachers remain unemployed. Gathering data would provide insight into reasons certain professions are preferred more than teaching. When subsequent studies are conducted, longitudinal data should be analyzed. It is currently not known if teachers return to the profession one year after they initially leave. Data from other studies can provide a unique insight into the teacher retention issue.

An additional area not covered in the literature review that will be included in this study is principal preparation programs and the ability to properly prepare campus principals for today's educational leadership role. According to Phillips (2013), Alabama, Kentucky, North Carolina, Florida, and New Jersey require university preparation programs to analyze the quality of their programs and conduct a redesign to ensure effective leaders are being produced. Slater et al. (2018) argued that principal preparation needs to go beyond teaching to confront management issues and help prospective principals develop a conscientious identity as a professional. Grissom et al. (2018) found that there is concern from policymakers and researchers about the quality of principal preparation programs and actual principal outcomes. They suggest holding preparation programs accountable for their outcomes. Principal preparation programs service both men and women with their unique curriculum that provides principals with the tools needed to influence teacher retention outcomes. This focus could potentially support the principal gender influence gap.

The final area not covered in the literature review is the attractiveness of the teaching profession and its effects on current and prospective teachers. According to Van den Borre et al. (2021), teacher retention policy efforts have been in place, but efforts are affected by a decline in the attractiveness of the teaching profession. Less people entering the teaching profession limits

the principal influence component. Education stakeholders have a vested interest in ensuring the teaching profession is respected, valued, and preserved for future generations. Missing constructs have the potential to provide data that will assist with improving and understanding the specific problem of practice through data-driven practices and procedures.

Summary

Patterns observed in the literature review provided sufficient context and justification for this study. The literature review connected to the reasons there are not enough people remaining in the teaching field to fill all classroom vacancies in Texas public schools. Patterns and associations, involving principal and teacher influence, are connected to coercion within the education field. People in power who dominate others are considered coercive (Gorsky et al., 2017). In the school setting, Orejudo et al. (2020) found a correlation between student misbehavior and teacher coercion. Coercion involves monitoring, measurement, management, and performance review (Gorsky et al., 2017). Teachers identified as effective do utilize verbal rewards to encourage student interest in addition to using fewer coercion tactics (Orejudo et al., 2020).

Chapter III describes a quantitative study that used surveys to gather information and data to investigate the study's central question. The central question asked teacher participants to identify important factors surrounding the type of influences and intensity of influences from principals that affected their choice to remain in the teaching profession. The researcher also asked teachers to identify their principal's gender. Each teacher participant's unique response led to the identification of trends and revealed the reality surrounding today's principal influences experienced by teachers and how they impacted their decision to remain in the teaching profession. Analyzing responses and data also helped to understand how influence tactics theory

impacts and plays a role in a principal's influence on teacher retention and the effects of gender within the working relationship. Berkovich (2017) explained there are gaps in the literature about influence, which includes the role and the effects on gender and on principal-teacher relations. This identified gap regarding principal gender effects, combined with influence and intensity, is the focus of this study. The literature provided an understanding of key factors affecting Texas teacher retention rates and supported this study in revealing new data on an existing problem.

Chapter II synthesized existing empirical research and provided a comprehensive literature review on the topic at hand. The quality of the data obtained for the study assisted with improving the specific problem of practice. The literature provided an understanding of key factors affecting Texas teacher retention rates and supported this study in identifying influences, gender effects, and coercion that have the potential to draw connections, conclusions, and bridge gaps with future study findings. Chapter III will review the study's methodology in detail. Research specific to the six school districts that start with 784 zip codes in the greater Corpus Christi, TX, area makes this study unique and justifies its need.

CHAPTER III

METHODOLOGY

Chapter III outlines the methodology that will be used in this study. The purpose of this quantitative, nonexperimental, cross-sectional, descriptive design (Creswell & Creswell, 2018; O'Dwyer & Bernauer, 2013) study was to identify principal influence tactics that are associated with a teacher's choice to remain in the teaching profession. The focus of the study was how extensively a principal uses each type of influence tactic to provide insight into effective ways influences can be used to prevent turnover. The central question identified principals' use of influence and its impact on teacher retention rates in addition to identifying differences found in teacher gender and the years of teaching experience. This study surveyed teachers from six school districts in the greater Corpus Christi, TX, area with a zip code beginning with 784.

The problem is that there is a shortage of current teachers who are choosing to remain in the teaching profession. Data from the analysis of federal education statistics reported statewide teacher shortages in all 50 states from 2016–2018 (Oyen & Schweinle, 2021). Teachers across Texas are choosing to leave the teaching profession resulting in vacancies that remain unfilled. Texas public school student enrollment is increasing, but teacher retention is decreasing (TEA, 2021a). Dupriez et al. (2015) found that teachers with fewer than seven months' commitment in their first year show a higher probability of exiting the teaching profession due to poor leadership and not enough professional development opportunities (Oyen & Schweinle, 2021).

Chapter III included a review of the study's problem of practice and the identified research question. The study's methodology and design were followed with specifics regarding the population and sample selection, instrumentation and data sources, validity, reliability, data collection procedures, data analysis procedures, ethical considerations, limitations, and a

summary. Justification and rationale regarding the study's methodology and design were discussed.

Research Questions

The research questions examined in this quantitative, nonexperimental, cross-sectional, descriptive research design (O'Dwyer & Bernauer, 2013) are as follows: (a) Is there a difference in teacher gender based on a principal's perceived use of influence? (b) Is there a difference in teacher retention rates based on a principal's perceived use of influence tactics? (c) Is there a difference in a teacher's years of teaching experience based on a principal's perceived use of influence? These research questions will examine the effects of principal influence tactics on teacher retention rates in Texas.

The dependent variables examined in the study were the 11 influence tactics. Influence tactics are defined as rational persuasion, exchange, inspirational appeal, legitimating, apprising, pressure, collaboration, ingratiation, consultation, personal appeals, and coalition. The IBQ-G has four general items for each tactic scale along with each item's objective, including attempts to influence the target person to comply with a request (Yukl & Tracey, 1992). Items are general in nature to make studying influence behavior in organizations relevant. The IBQ-G has five anchored response choices that indicate how often the principal uses the influence tactic, with a one to five tactic range. Each dependent variable was operationalized by its mean score, and the range of possible mean scores for a tactic was from one to five (Yukl et al., 2008; Yukl & Tracey, 1992). Research findings have the potential to inform principals, improve the education system, and increase teacher retention rates.

The four independent variables involved are the number of years a teacher has remained at a current campus, the years of teaching experience, participant gender, and principal gender.

Completed IBQ-Gs, responses to a demographic questionnaire, and the Texas Academic Performance Report for each school district are the sources necessary to answer the research questions.

Research Methodology

The study used a quantitative research method. Quantitative research is a collection of data with the results analyzed and presented as numerical values (Patten & Newhart, 2017). Quantitative methods involve the study of populations, behaviors, and other observable phenomena by collecting, analyzing, interpreting, and writing the results. Quantitative research defines the variables, analyzes the relationship of the variables, or compares groups (Creswell & Creswell, 2018). Quantitative research examines sample and statistical analytics that represent a population with statistics having the option to be descriptive statistics type that summarizes averages, range, the most common answers, or identifies how data are distributed or disbursed, or an inferential statistics type that develops judgments of the probability (Patten & Newhart, 2017).

Quantitative research examines the relationship among variables and includes hypothesizing, analyzing, result interpretation, and conclusion of results (Creswell & Creswell, 2018). The study's central question asked participants to identify tactics regarding influence with the dependent variable being the 11 influence tactics, ranging from 1-5, and the independent variables being the number of years a teacher has remained at one district, teacher gender, and principal gender. Quantitative research methods work best with the identification of differences that influence outcomes. This is the rationale behind using the quantitative research method in this study; it directly aligns with the research question (Creswell & Creswell, 2018).

Research Design

This quantitative study's chosen research design is a nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013). Quantitative research results in data that can be quantified, which allows for statistical analysis (Patten & Newhart, 2017). Nonexperimental research compares two or more groups in terms of a cause (or independent variable) that has already happened (Creswell & Creswell, 2018) using surveys and polls (Patten & Newhart, 2017). Cross-sectional was chosen because this study collected data representing one moment in time (Creswell & Creswell, 2018; Patten & Newhart, 2017). Descriptive statistics support the researcher in analyzing responses to the independent and dependent variables (Creswell & Creswell, 2018) as well as describing attributes, behaviors, or phenomena (O'Dwyer & Bernauer, 2013). The rationale behind selecting this specific design was that it allowed the researcher to examine, investigate, compare, and identify differences found in teacher gender and years of teaching experience within a principal's use of influence and teacher retention.

Population and Sample Selection

This study targeted teachers in school districts that started with 784 zip codes in the greater Corpus Christi, TX area. Five districts were contacted for potential teacher participation. District One had 289 teachers, District Three had 358, District Four had 86, District Five had 266, and District Six had 153 (TEA, 2022b). The teachers in each district fell in one of the following categories: 1–5 years of teaching experience, 6–10 years, 11–20 years, 21–30 years of teaching experience, or more than 30 years of teaching experience (TEA, 2022b).

Convenience sampling was used due to convenience and availability (Creswell & Creswell, 2018). Each of the five school districts received a request for all teachers to complete the IBQ-G. The plan included five school districts; all teachers participants completed the IBQ-G

which allowed for a higher probability of response. According to Chung (2022), a good survey response rate ranges between 5% to 30%, an excellent response rate is categorized as 50% or higher. The response rate goal was 20%. Each school district achieving 20% completion allowed for $n = 230$ surveys to be used as the study's sample size. The total number of teachers for all districts combined was 1,151. The 230-sample size met the minimum sample size of 100 to get a meaningful result (Bullen, 2022) and not run the risk of lacking enough data to support expectations (Fowler & Lapp, 2019).

Instrumentation and Data Sources

The instrument selected for this quantitative study was a questionnaire. The instrument's purpose was to learn more about the different ways people try to influence each other in work organizations. The IBQ-G stemmed from previously established versions that measured influential tactics used to achieve compliance from another, to carry out a task, to provide assistance, to support or implement a proposed change, or to perform a personal favor (Yukl et al., 2008). The IBQ, a previously established version, was developed by Yukl and Tracey (1992), and it measured 10 influence tactics scales: rational persuasion, exchange, ingratiation, pressure, coalition, upward appeals, consultation, inspirational appeals, personal appeals, and legitimating. The IBQ was revised to the IBQ-R with the addition of apprising and collaboration tactics. The most recent version, IBQ-G, includes 11 tactic scales: rational persuasion, exchange, inspirational appeal, legitimating, apprising, pressure, collaboration, ingratiation, consultation, personal appeals, and coalition (Yukl & Tracey, 1992).

The IBQ-G item grouping of 11 tactic scales is concise and helps with understanding the differences between each of the tactics. The IBQ-G has four general items for each of the 11 tactics totaling 44 items. Items are not specific but are more general to make studying influence

behavior in organizations relevant. The IBQ-G has five anchored response choices (1–5 range) that indicate how often the agent used the influence tactic to influence. These include (a) I can't remember him/her ever using this tactic with me, (b) He/she very seldom uses this tactic with me, (c) He/she occasionally uses this tactic with me, (d) He/she uses this tactic moderately often with me, and (e) He/she uses this tactic very often with me (Yukl et al., 2008). Influence tactics were defined as rational persuasion, exchange, inspirational appeal, legitimating, apprising, pressure, collaboration, ingratiation, consultation, personal appeals, and coalition. Participants selected one of the following response choices for each of the four general items under each influence tactic (Yukl et al., 2008). Research findings have the potential to inform principals, improve the education system, and increase teacher retention rates.

The IBQ-G was entered in Qualtrics. Qualtrics is an online platform that has electronic survey software that supports quantitative studies. Researchers can use the Qualtrics platform to create customized surveys in the survey builder accompanied by links for participants to access the survey. The platform contains features such as automated emails to participants, exporting of surveys, and participant confidentiality (*Qualtrics XM*, 2023).

Validity

Validity is the accuracy of a scale (Cronk, 2019). Examining correlations amongst the tactic scales determined the IBQ-G's discriminant validity. Yukl et al. (2008) explained that the IBQ-G discriminant validity was assessed in three different studies with the pattern of results indicating that the tactic scales in the IBQ-G had adequate discriminant validity. Adequate discriminant validity is the reason the IBQ-G is often used in validation studies and the reason it is being used for this study. The IBQ was developed and validated in the United States and is known to be used effectively by managers in 12 countries (Yukl et al., 2008). Internal

consistency for this scale is adequate (alpha is usually close to .80), and convergent validities are all significant ($p < .01$; Yukl et al., 2008). The validity of the IBQ-G instrument has been previously studied, and reports show that the IBQ-G is a valid, reliable, and comprehensive measure of influence tactics (Tyrovola et al., 2011).

Reliability

Yukl et al. (2008) explained that internal consistency indicates the measurement of the same type of behaviors and the intercorrelation among scale items. The IBQ-G internal consistency and stability for tactic scales is adequate and valid ($r = .68$; Yukl et al., 2008). Further, IBQ-G validity and reliability were tested by Tyrovola et al. (2011) with the results showing the instrument is eligible for use. All reliability statistics are significant ($p < .01$; Yukl et al., 2008).

Data Collection Procedures

The researcher contacted the 1,151 potential teacher participants through email. The email included the study's research purpose, audience, and data collection goal. Participants who clicked on the link to the electronic survey provided in the email—agreed to participate in this study. The researcher followed all required district approval processes, forms, and procedures before communicating with participants.

Participants submitted responses to the online survey that were captured by Qualtrics. The survey remained open for 10 business days. An email reminder regarding the deadline was sent after one week. An extension of five business days was granted to participants requiring additional time for completion if the target sample of 230 was not met. Incomplete surveys were not included in the data collection.

Participants remained anonymous throughout all data collection processes. The study's data was downloaded from Qualtrics and stored on a password-protected encrypted file that was saved to a thumb drive. The thumb drive was locked in a safe location at the researcher's home office indefinitely. These safety measures ensured that participants' rights and well-being were protected. The researcher was not affiliated with any participating school districts or teachers, and there was no professional connection, thus avoiding potential conflicts of interest and ethical issues.

Data Analysis Procedures

The data analysis procedures included downloading the data from Qualtrics as a first step. Once data were downloaded, they were then uploaded to the SPSS Version 28. All data was verified and checked for errors and omissions before running a descriptive statistic and test of assumptions. Data with errors or omissions was deleted from the data set.

The analysis of variance (ANOVA) tool using a descriptive design was the source involved that answered the research questions. The one-way ANOVA tool was used to test the difference and analyze the data according to SPSS methods outlined in Cronk's (2019) SPSS manual. Data analysis procedures continued—inferential test was run to answer the three research questions. The use of influences that determine a teacher's commitment to the teaching profession were identified by SPSS's R Square (coefficient of determination), *P* value (probability) findings, and ANOVA descriptive analysis (Cronk, 2019). Tables were used to present study results and provide support for descriptive statistical analysis and interpretation. Interpretations derived from SPSS findings regarding the connections between principal influence and teacher commitment.

Ethical Considerations

All participants were provided information explaining the research purpose, roles, and risks involved, along with an informed consent form. The data collection protection plan ensured that the data from participants remained protected. Participants remained anonymous throughout all data collection processes and data findings. The researcher was the only person with access to the data. Data will be kept indefinitely and stored on a thumb drive that will be locked in a secure location.

The steps described ensured teacher participants' rights and well-being was protected. Participating school districts and participants were not affiliated with the researcher confirmed there was no professional connection, avoiding a potential conflict of interest. The avoidance of conflicts of interest and professional connections ensured an ethical study was conducted. There were no known conflicts of interest in this study.

Assumptions

It was assumed that participants were honest when responding to the survey. To prevent dishonesty, the researcher had a data protection plan and assured all participants they would remain anonymous, and their information would be kept confidential. The second assumption was that each participant had a full understanding of the research purpose and responded appropriately. To ensure participants understand the research purpose, the researcher provided them with detailed information explaining the research purpose, roles, and risks.

Limitations

The limitation involved in this study included participant response rates. A strategy to minimize the potential consequences of difficulties with response rates was to set up a one-week

reminder. The second strategy to minimize a low response rate was to allow an extension of five business days for participants who required additional time for completion.

Delimitations

This study included two delimitations. One delimitation for this study was the requirement for teachers to be employed at school districts from the greater Corpus Christi, TX, area with a zip code starting in 784. This requirement was important because teachers from these school districts were all within the same city in Texas, and districts are competing to retain teachers. The second delimitation was the use of convenience sampling because the researcher could not generalize the study results. A future study may consider including teachers from school districts outside of Corpus Christi. Planning, along with knowing and understanding the research's assumptions, limitations, and delimitations was needed to ensure enough time was available to conduct and complete a quality study. Mitigation strategies were in place to support any assumptions, limitations, and delimitations. Regardless of any limitations and delimitations, all efforts were made to ensure the data collection, practices, and analysis were conducted ethically and with a quality-driven approach.

Summary

This chapter outlined the research method used to answer the research questions that stemmed from the study's purpose. The study's main research questions asked participants to identify important factors regarding a principal's perceived use of influence and its role in teacher retention rates, as well as any differences found within teacher gender and the years of teaching experience. The study's research method and design provided an in-depth look into the research's central problem.

A quantitative research method using a nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013), along with the utilization of a valid and reliable IBQ-G instrument and an analysis of variance (ANOVA) tool, provided the necessary data. Analyzing the findings surrounding the influence tactics (1–5 range) dependent variable and years at one district, teacher gender, and principal gender independent variables has the potential to provide findings that will increase teacher retention rates in Texas. A descriptive analysis allowed the prediction of one variable from other variables (Cronk, 2019).

The methodology, along with proper planning and implementation, supported the necessary steps to reveal findings between principal influence tactics and teacher retention. Findings have the potential to impact principals, improve the education system, and increase teacher retention rates. Chapter IV will present the descriptive and inferential data, data analysis, and results.

CHAPTER IV

DATA ANALYSIS AND RESULTS

Introduction

The problem is that not enough teachers are remaining in the profession causing widespread classroom vacancies in Texas public schools (Texas Education Agency, 2023). This chapter summarizes the data analysis, results, and findings of the quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013). The study was conducted to examine principals' use of influence tactics on teacher retention, as well as identifying differences found in gender and the years of teaching experience within teacher retention rates. This study addressed the gap in the literature that revealed the need for research on influence, specifically influence and its effects on gender and on principal-teacher relationships (Berkovich, 2017). The research questions examined in this quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013) included:

RQ1: Is there a difference in principal's use of influence based on teacher gender?

RQ2: Is there a difference in teacher retention rates based on a principal's use of influence tactics?

RQ3: Is there a difference in a teacher's years of experience based on a principal's use of influence?

This study utilized four demographic questions and the Influence Behavior Questionnaire (IBQ-G) (Yukl et al., 2008). The 11 influence tactics, which were the dependent variables of the study included pressure (PR), exchange (EX), coalition (CT), ingratiating (IN), rational persuasion (RP), inspirational appeals (IA), consultation (CN), legitimating (LG), apprising (AP), collaboration (CB), and personal appeals (PA); these tactics represented the subscales of

the IBQ-G. The survey was a 44-question survey with Likert scoring that ranged from 1 (never uses) to 5 (often uses). The four independent variables included the number of years a teacher has remained at their current campus, the years of teaching experience, participant gender, and principal gender. All variables used in this study were interval and nominal. Survey questions were entered into Qualtrics. All survey submissions with missing data were removed (Cronk, 2019). The IBM Statistical Package for Social Sciences (SPSS) Version 28 was used to analyze study data. This chapter includes descriptive statistics, tables, and summaries.

Descriptive Statistics

Study participants were selected by using convenience sampling due to convenience and availability (Creswell & Creswell, 2018). Teachers from each of the five school districts that start with 784 zip codes in the greater Corpus Christi, TX, area received an email with a request to complete the study's survey. The total number of teachers reported in all districts combined equaled 1,151 (TEA, 2022b). The 60 survey responses total a 5% response rate, which is considered a good response rate (Chung, 2022). There was a total of 112 survey responses, but due to incomplete survey submissions, 52 participants were removed from the final data set. The removal was made for the final sample of $n = 60$ participants.

Demographic Survey Data

The demographic survey asked the participants to complete four questions. The first question asked participants to select their gender. Participants' responses indicated that the sample consisted of 78.3% ($n = 47$) females and 21.7% ($n = 13$) males. Demographic findings showed that there were more females than males when it came to participant gender. This information is provided in Table 1.

Table 1*Demographics-Gender of Participants*

	N	%
Female	47	78.3%
Male	13	21.7%

The second demographic question asked participants to select their principal's gender. Participant's responses indicated that the sample consisted of 75% (n = 45) females and 25% (n = 15) males. Demographic findings showed that there were more females than males when it came to principal gender. This information is provided in Table 2.

Table 2*Demographics-Gender of Principal*

	N	%
Female	45	75.0%
Male	15	25.0%

The third demographic question asked participants to provide the years of teaching experience. Participants were asked to provide this information in a numerical form. The years of experience were defined by four categories: 0–5 years, 6–10 years, 11–20 years, and 21–30–20 years. Approximately 22% of participants indicated that they have 21–30 years of teaching experience, with 30% indicating 0–5 years of teaching experience. The highest percentages reported were in the category 0–5 years under years of teaching experience. A summary of years of teaching experience by category of the participating teachers is provided in Table 3.

Table 3*Demographics-Teaching Experience*

	N	%
0-5	18	30.0%
6-10	14	23.3%
11-20	15	25.0%
21-30	13	21.7%

The fourth demographic question asked participants to provide the number of years teaching at the current campus. Participants provided information in numeric form. The number of years teaching at the current campus was defined by four categories: 0–5 years, 6–10 years, 11–20 years, and 21-30 years. Teachers with 21-30 years of teaching at the current campus totaled 5% with 55% indicating 0-5 years of teaching at the current campus. The highest percentages reported were in the category 0-5 years under the number of years at the current campus. This information is provided in Table 4.

Table 4*Demographic-Years Retention at Campus*

	N	%
0-5	33	55.0%
6-10	17	28.3%
11-20	7	11.7%
21-30	3	5.0%

Table 5 provides a summary of the descriptive statistics for the independent variables in this study. There were zero influence tactics with a range of 4 (moderately uses) or 5 (often uses) mean. All influence tactics range between 1 (never uses) and 3 (occasionally uses).

Table 5

IV Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Rational Persuasion	60	1.00	5.00	3.342	.149	1.157
Inspirational Appeals	60	1.00	5.00	3.175	.139	1.077
Exchange	60	1.00	3.75	1.696	.100	.777
Apprising	60	1.00	5.00	2.200	.145	1.123
Legitimizing	60	1.00	5.00	2.783	.136	1.056
Pressure	60	1.00	3.50	1.500	.091	.709
Collaboration	60	1.00	4.75	2.517	.141	1.093
Personal Appeals	60	1.00	3.75	1.333	.080	.622
Consultation	60	1.00	5.00	2.675	.152	1.180
Ingratiating	60	1.00	5.00	2.471	.163	1.264
Coalition	60	1.00	3.00	1.454	.074	.572

Descriptive Findings

This chapter presented the findings of the study and the statistical methodologies used as described in Chapter III. A summary of group statistics for each of the three research questions was provided. Summaries included mean and standard deviation findings specific to each of the independent and dependent variables for each research question.

Research Question 1

Research Question 1 focused on the difference in principal's use of influence based on teacher gender. The 11 influence tactics served as the dependent variables and gender served as the independent variable. A summary of group statistics for the first research question involved in this study is provided in Table 6.

Table 6*RQ1-Independent Samples T Test*

	IV Level	N	Mean	SD	St. Error Mean
PR	Female	47	1.505	.700	.102
PR	Male	13	1.480	.767	.213
EX	Female	47	1.686	.749	.109
EX	Male	13	1.731	.904	.251
CT	Female	47	1.484	.533	.077
CT	Male	13	1.346	.711	.197
IN	Female	47	2.516	1.269	.185
IN	Male	13	2.308	1.279	.355
RP	Female	47	3.378	1.149	.168
RP	Male	13	3.212	1.224	.339
IA	Female	47	3.181	1.033	.151
IA	Male	13	3.154	1.269	.352
CN	Female	47	2.829	1.198	.175
CN	Male	13	2.115	.955	.265
LG	Female	47	2.760	.949	.138
LG	Male	13	2.865	1.420	.394
AP	Female	47	2.234	1.037	.151
AP	Male	13	2.077	1.434	.398
CB	Female	47	2.553	1.066	.155
CB	Male	13	2.385	1.227	.340
PA	Female	47	1.329	.576	.084
PA	Male	13	1.346	.794	.220

Research Question 2

Research Question 2 focused on the difference in teacher retention rates based on a principal's use of influence tactics. The 11 influence tactics served as the dependent variables and the number of years a teacher has remained at their current campus served as the

independent variable. A summary of group statistics for the second research question involved in this study is provided in Table 7.

Table 7

RQ2-One-way ANOVA

	Year Category	N	Mean	SD	St. Error Mean
PR	0-5	33	1.394	.612	.107
PR	6-10	17	1.515	.693	.168
PR	11-20	7	1.607	.876	.331
PR	21-30	3	2.333	1.181	.682
EX	0-5	33	1.652	.726	.126
EX	6-10	17	1.721	.765	.186
EX	11-20	7	1.429	.813	.307
EX	21-30	3	2.667	1.010	.583
CT	0-5	33	1.394	.480	.084
CT	6-10	17	1.632	.719	.174
CT	11-20	7	1.179	.313	.118
CT	21-30	3	1.750	.901	.520
IN	0-5	33	2.053	1.102	.192
IN	6-10	17	3.177	1.337	.324
IN	11-20	7	2.500	.968	.366
IN	21-30	3	3.000	1.750	1.010
RP	0-5	33	3.219	1.064	.185

RP	6-10	17	3.574	1.214	.295
RP	11-20	7	3.071	1.605	.607
RP	21-30	3	4.000	.500	.289
IA	0-5	33	3.083	1.007	.175
IA	6-10	17	3.456	1.058	.257
IA	11-20	7	2.786	1.439	.544
IA	21-30	3	3.500	1.146	.661
CN	0-5	33	2.606	1.072	.187
CN	6-10	17	2.794	1.309	.317
CN	11-20	7	2.250	1.458	.551
CN	21-30	3	3.750	.250	.144
LG	0-5	33	2.621	.873	.152
LG	6-10	17	3.088	1.156	.280
LG	11-20	7	2.107	1.009	.381
LG	21-30	3	4.417	.382	.220
AP	0-5	33	2.114	.960	.167
AP	6-10	17	2.500	1.349	.327
AP	11-20	7	1.571	.826	.312
AP	21-30	3	2.917	1.665	.961
CB	0-5	33	2.371	1.008	.175
CB	6-10	17	2.809	1.171	.284
CB	11-20	7	2.179	1.239	.468
CB	21-30	3	3.250	1.089	.629

PA	0-5	33	1.288	.597	.104
PA	6-10	17	1.397	.649	.158
PA	11-20	7	1.214	.304	.115
PA	21-30	3	1.750	1.299	.750

Research Question 3

Research Question 3 focused on the difference in a teacher's total number of years based on a principal's use of influence. The 11 influence tactics serve as the dependent variables and total number of years of teaching experience served as the independent variable. A summary of group statistics for the final research question involved in this study is provided in Table 8.

Table 8

RQ3-One-way ANOVA

	Year	N	Mean	SD	St. Error
	Category				Mean
PR	0-5	18	1.403	.631	.149
PR	6-10	14	1.446	.589	.158
PR	11-20	15	1.550	.745	.192
PR	21-30	13	1.635	.916	.254
EX	0-5	18	1.583	.697	.164
EX	6-10	14	2.018	.912	.244
EX	11-20	15	1.450	.544	.141
EX	21-30	13	1.789	.901	.249
CT	0-5	18	1.431	.506	.119

CT	6-10	14	1.482	.576	.154
CT	11-20	15	1.517	.729	.188
CT	21-30	13	1.385	.506	.140
IN	0-5	18	1.986	1.142	.269
IN	6-10	14	2.696	1.275	.341
IN	11-20	15	2.617	1.274	.329
IN	21-30	13	2.731	1.356	.376
RP	0-5	18	3.292	1.189	.280
RP	6-10	14	3.589	.988	.264
RP	11-20	15	3.133	1.264	.326
RP	21-30	13	3.385	1.236	.343
IA	0-5	18	3.208	1.186	.279
IA	6-10	14	3.625	.944	.252
IA	11-20	15	2.783	.860	.222
IA	21-30	13	3.096	1.201	.333
CN	0-5	18	2.597	1.154	.272
CN	6-10	14	2.929	.879	.235
CN	11-20	15	2.433	1.223	.316
CN	21-30	13	2.789	1.486	.412
LG	0-5	18	2.611	.932	.219
LG	6-10	14	3.177	1.063	.284
LG	11-20	15	2.617	1.039	.268
LG	21-30	13	2.789	1.228	.341

AP	0-5	18	2.069	.966	.228
AP	6-10	14	2.786	1.239	.331
AP	11-20	15	2.067	1.124	.290
AP	21-30	13	1.904	1.092	.303
CB	0-5	18	2.264	1.019	.240
CB	6-10	14	3.071	1.054	.282
CB	11-20	15	2.267	1.079	.279
CB	21-30	13	2.558	1.146	.318
PA	0-5	18	1.222	.453	.107
PA	6-10	14	1.500	.872	.233
PA	11-20	15	1.350	.533	.138
PA	21-30	13	1.289	.636	.176

Data Analysis Procedures

Data analysis was conducted using *t* test and one-way ANOVA (Cronk, 2019). Two assumptions were examined for each of the two types of tests used with the three research questions.

T Test Assumptions

A *t* test of independence was used to answer the first research question (Cronk, 2019). The *t* test compares the mean of a single sample, with the assumption being that the *t* test can handle violations of the assumption of normal distribution and that means are equal (Cronk, 2019). The data was analyzed according to SPSS methods outlined in Cronk's (2019) SPSS manual. The *t* test was the correct test to run to answer this question. The mean scores for each of the 11 influence tactics were compared to the teacher gender mean.

Two statistical assumptions were examined for Research Question 1. The first assumption included the dependent variables (interval and normally distributed) and the independent variables (nominal and only included two levels). Additional assumptions included participants were only in one group and that all groups had equal variances, and homogeneity of variance. Normality distribution was tested using Shapiro-Wilk. The Shapiro-Wilk test generated a value of $p > .05$ for IA and LG. Full results of this test can be found in the appendix (See Appendix C).

Skewness is the extent to which the distribution is not symmetrical (Cronk, 2019). Kurtosis measures if the data forms a flat or peaked curve (Urdan, 2016). In order for the distribution to be considered normal, skewness was in the ± 2 range, and kurtosis was in the ± 5 ranges to be acceptable (Cronk, 2019). For the remaining nine dependent variables that did not pass the Shapiro-Wilk, $p < .05$, an inspection of Skewness and Kurtosis was conducted; it showed all variables were within the acceptable ranges. Full results of these tests can be found in the appendix (See Appendix C).

One Way ANOVA Assumptions

A one-way ANOVA was used to answer the second and third research questions. The one-way ANOVA tested the difference and analyzed the data according to SPSS methods outlined in Cronk's (2019) SPSS manual. The use of influences that determine a teacher's commitment to the teaching profession were identified by SPSS's R Square (coefficient of determination), P value (probability) findings, and ANOVA descriptive analysis (Cronk, 2019). Interpretations derived from SPSS findings regarding the connections between principal influence and teacher commitment. A one-way ANOVA analysis was the correct test to run in order to answer both research questions. This methodology assessed differences within, or an

effect on, an interval variable based on a three (or more)-level nominal variable, which limits chances for Type 1 Error (Cronk, 2019). One-way ANOVA compares the means of two or more groups that vary on a single independent variable. The independent variables were the number of years a teacher has remained at their current campus for RQ2 and the total number of years of teaching experience for RQ3.

Two statistical assumptions were examined for Research Question 2. The first assumption included requiring a single dependent and a single independent variable. The second assumption was that the dependent variable was at the interval or ratio level and was normally distributed and that the variances of the dependent variable for each level of the independent variable were equal (Cronk, 2019). Normality distribution was tested using Shapiro-Wilk. The Shapiro-Wilk test generated a value of $p > .05$ for six of the influence tactics that include IN, RP, IA, CN, LG, and CB. Full results of this test can be found in the appendix (See Appendix C).

Skewness is the extent to which the distribution is not symmetrical (Cronk, 2019). Kurtosis measures if the data forms a flat or peaked curve (Urdan, 2016). Skewness in the ± 2 range and kurtosis in the ± 5 are acceptable ranges for the distribution to be considered normal (Cronk, 2019). For the remaining five dependent variables that did not pass the Shapiro-Wilk, an inspection of Skewness and Kurtosis was conducted, which showed all variables were within the acceptable ranges. Full results of these tests can be found in the appendix (See Appendix C).

The same assumptions that examined Research Question 2 were the ones used to examine Research Question 3. The first assumption included requiring a single dependent and a single independent variable. The second assumption was that the dependent variable was at the interval or ratio level and was normally distributed and that the variances of the dependent variable for each level of the independent variable were equal (Cronk, 2019). Normality distribution was

tested using Shapiro-Wilk. The Shapiro-Wilk test generated a value of $p > .05$ for six of the influence tactics that include IN, RP, IA, CN, LG, and CB. Full results of this test can be found in the appendix (See Appendix C).

Skewness is the extent to which the distribution is not symmetrical (Cronk, 2019). Kurtosis measures if the data forms a flat or peaked curve (Urdan, 2016). In order for the distribution to be considered normal, skewness was in the ± 2 range, and kurtosis was in the ± 5 ranges to be acceptable (Cronk, 2019). For the remaining five dependent variables that did not pass the Shapiro-Wilk, an inspection of Skewness and Kurtosis was conducted, which showed all variables were within the acceptable ranges except for personal appeals (PA). Full results of this test can be found in the appendix (See Appendix C).

Results

The study examined three research questions. The research questions included the following.

RQ1: Is there a difference in principal's use of influence based on teacher gender?

RQ2: Is there a difference in teacher retention rates based on a principal's use of influence tactics?

RQ3: Is there a difference in a teacher's total number of years based on a principal's use of influence?

Research Question 1

An independent samples t test (Cronk, 2019) was run to answer the first research question, comparing the mean scores of the 11 influence tactics with teacher gender. Equal variances were assumed for all but two of the tests, legitimating (LG) and apprising (AP). No

significant differences were found for the 11 influence tactics. A summary of the *t* test results is provided in Table 9.

Table 9

RQ1-Independent Samples T test

Note. Equal variances not assumed. Significance at $p < .05$. Full test results can be found in the

Influence Tactic	t	df	Sig. (2-sided)	Male Mean	Female Mean
PR	.110	58	.913	1.481	1.505
EX	-.182	58	.857	1.731	1.686
CT	.766	58	.447	1.346	1.484
IN	.523	58	.603	2.308	2.516
RP	.455	58	.651	3.212	3.378
IA	.079	58	.937	3.154	3.181
CN	1.979	58	.053	2.115	2.829
LG	-.251*	15.092*	.805*	2.865	2.761
AP	.369*	15.635*	.717*	2.077	2.234
CB	.489	58	.627	2.385	2.553
PA	-.083	58	.934	1.346	1.329

appendix.

Research Question 2

The results of the one-way ANOVA tests for research question 2 identified two significant outcomes. Analysis revealed ingratiating (IN) and legitimating (LG) were significantly different. A post-hoc, Tukey's method, compared all possible group pairings for ingratiating (IN) and legitimating (LG). A one-way ANOVA compared the principal use of ingratiation (IN) influence tactic with the retention rate at a campus (Cronk, 2019). A significant difference was found among the retention rate at a campus ($F(3,56) = 3.553, p < .05$). A summary of the results is found in Table 10.

Table 10*RQ2-One-way ANOVA ingratiating (IN) Mean*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.071	3	5.024	3.553	.020
Within Groups	79.190	56	1.414		
Total	94.261	59			

Note. Significance at $p < .05$.

A post-hoc, Tukey's method, was necessary because of the significant difference (Cronk, 2019). Tukey's HSD was used to determine the nature of the differences between the four different category years at the same campus (retention). This analysis revealed that teachers with 6-10 years of campus retention ($M = 3.177$, $sd = 1.337$) were significantly different than the category 0-5 years ($M = 2.053$, $sd = 1.102$) under the ingratiation (IN) influence tactic. A summary of the results is provided in Table 11.

Table 11*RQ2-Ingriating Mean Multiple Comparisons (Tukey HSD)*

Number of years at campus by category.	Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-1.123*	.355	.013	-2.064	-.183
	11-20	-.447	.495	.803	-1.757	.863
	21-30	-.946	.717	.554	-2.846	.952
6-10	0-5	1.123*	.355	.013	.183	2.063
	11-20	.676	.534	.588	-.738	2.090
	21-30	.176	.745	.995	-1.795	2.148
11-20	0-5	.447	.495	.803	-.863	1.757
	6-10	-.676	.534	.588	-2.090	.738
	21-30	-.500	.820	.929	-2.673	1.673
21-30	0-5	.947	.717	.554	-.952	2.846
	6-10	-.176	.745	.995	-2.148	1.795
	11-20	.500	.821	.929	-1.673	2.673

Note. The mean difference is significant at the 0.05 level.

A one-way ANOVA compared the principal use of legitimating (LG) influence tactic with the retention rate at a campus (Cronk, 2019). A significant difference was found among the retention rate a campus ($F(3,56) = 4.551, p < .05$). A summary of results is found in Table 12.

Table 12*RQ2-One-way ANOVA legitimating (LG) Mean*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.652	3	4.551	4.886	.004
Within Groups	52.157	56	.931		
Total	65.808	59			

Note. Significance at $p < .05$.

A post-hoc, Tukey's method, was necessary because of the significant difference (Cronk, 2019). Tukey's HSD was used to determine the nature of the differences between the four

different category years at the same campus (retention). This analysis revealed that teachers with 21-30 years of campus retention ($M = 4.417$, $sd = .382$) were significantly different than the category 0-5 years ($M = 2.621$, $sd = .873$) and the category 11-20 years ($M = 2.107$, $sd = 1.009$). Teachers with 21-30 years of campus retention were not significantly different than the category 6-10 years. A summary of the results is provided in Table 13.

Table 13

RQ2-Legitimizing Mean Multiple Comparisons (Tukey HSD)

Number of years at campus by category.	Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-.467	.288	.375	-1.229	.296
	11-20	.514	.402	.579	-.549	1.577
	21-30	-1.795*	.582	.016	-3.336	-.255
6-10	0-5	.467	.288	.375	-.296	1.229
	11-20	.981	.433	.119	-.167	2.129
	21-30	-1.328	.604	.136	-2.929	.272
11-20	0-5	-.514	.402	.579	-1.577	.549
	6-10	-.981	.433	.119	-2.129	.167
	21-30	-2.309*	.666	.005	-4.073	-.546
21-30	0-5	1.795*	.582	.016	.255	3.336
	6-10	1.328	.604	.136	-.272	2.929
	11-20	2.309*	.666	.005	.546	4.073

Note. The mean difference is significant at the 0.05 level.

A one-way ANOVA was used to evaluate the remaining nine influence tactics comparing the mean scores with the retention rate at a campus. Equal variances were assumed for all tests but one, coalition (CT). A summary of the results is provided in Table 14.

Table 14*RQ2-Research Question 2: One-way ANOVA: Nonsignificant Differences*

	Sum of Squares	df	Mean Square	F	Sig.
PR	2.539	3	.846	1.749	.167
EX	3.403	3	1.134	1.971	.129
CT	*	3/8.015*	*	1.570*	.271*
RP	3.216	3	1.072	.792	.503
IA	2.996	3	.999	.855	.470
CN	5.129	3	1.710	1.243	.303
AP	6.083	3	2.028	1.663	.185
CB	4.563	3	1.521	1.290	.287
PA	.757	3	.252	.640	.592

Note. Significance at $p < .05$. * Welch Test-Equal variances not assumed. Full tests results can be found in the appendix.

Research Question 3

A one-way ANOVA (Cronk, 2019) was run to answer the third research question, comparing the mean scores of the 11 influence tactics with the total number of years of teaching experience. Equal variances were assumed for all but one test, consultation (CN). No significant differences were found for the 11 influence tactics. A summary of these results is provided in Table 15.

Table 15*RQ3-Research Question 3: One-way ANOVA: Nonsignificant Differences*

	Sum of Squares	df	Mean Square	F	Sig.
PR	.483	3	.161	.310	.818
EX	2.698	3	.899	1.529	.217
CT	.142	3	.047	.139	.936
IN	6.139	3	2.046	1.300	.283
RP	1.578	3	.526	.381	.767
IA	5.237	3	1.746	1.547	.212
LG	3.138	3	1.046	.935	.430
CN	*	3/29.753	*	.587	.628
AP	6.517	3	2.172	1.793	.159
CB	6.418	3	2.139	1.866	.146
PA	.641	3	.214	.540	.657

Note. Significance at $p < .05$. * Welch Test-Equal variances not assumed. Full tests results can be found in the appendix.

Summary

Study procedures and findings of the data analysis are provided in Chapter IV. This study used a quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013) to examine principals' use of influence tactics on teacher retention, as well as identifying differences found in gender and the total number of years within teacher retention rates from teachers in five school districts from the greater Corpus Christi, TX area with a 784 zip code.

The sample size was $n = 60$. The study utilized a t test and one-way ANOVA analysis tools to determine if statistically significant relationships existed between principal use of influence tactics and teacher gender, teacher retention rates at the same campus, and the total number of years of teaching experience. The four independent variables included the number of years a teacher has remained at their current campus (CMP_YRS_CAT), the total number of years of teaching experience (TCH_YRS_CAT), participant gender (Gender), and principal gender (Prin_Gender). The 11 influence tactics were the dependent variables.

The descriptive findings of this study showed that most participants were females; the participants also reported that the majority of principal gender responses were also female. The number of years of teaching experience findings indicated that 30% had 0-5 years of experience, 23.3% had 6-10 years of teaching experience, 25% had 11-20 years of teaching experience, and 21.7% had 21-30 years of teaching experience. The final demographic question that asked number of years at current campus revealed 55% of teachers have been at their current campus 0-5 years, 28.3% have been at their current campus 6-10 years, 11.7% have been at their current campus 11-20 years, and 5% have been at their campus 21-30 years. Higher percentages were found in the category 0-5 years.

Data analysis included all research questions tested for normal distribution. Results showed that all variables were within acceptable ranges in RQ1 and RQ2. Research Question 3 only had one influence tactic, personal appeals (PA), not within an acceptable range. The results of the t test for RQ1 found that equal variances assumed for all but two of the eleven influence tactics, legitimating (LG) and apprising (AP). Results of the one-way ANOVA for RQ2 found that two of the 11 influence tactics, ingratiating (IN) and legitimating (LG) were significantly different. Research Question 2 had equal variances assumed for all except coalition (CT).

Research Question 3, a one-way ANOVA analysis, revealed all 11 influence tactics had no significant differences. Equal variances assumed for all but one test, consultation (CN).

Explanations of theoretical, practical, and future implications are provided in the following chapter. In-depth strengths and limitations of the study will also be presented, along with recommendations for future research regarding this topic. A summary of this study, study findings, and conclusion is provided in Chapter V.

CHAPTER V

DISCUSSION AND CONCLUSION

Introduction and Summary of Study

The reality of plummeting teacher retention rates is not only in Texas, but also worldwide (Zavelevsky et al., 2021). According to the international organization, United Nations Educational, Scientific and Cultural Organization (UNESCO), the world needs 70 million more teachers to provide every student with an equitable and inclusive education (Craig et al., 2023). The 2022 Texas teacher survey results conducted by the Charles Butt Foundation (2023) reported that 77% of Texas teachers have seriously considered leaving the profession. Of the 77% of teachers that have considered leaving, 93% have gone an extra step in their consideration by preparing and updating resumes, applying for jobs, and participating in job interviews. Texas retention rates suffer even more in the area of schools serving low-achieving students and greater proportions of minority students (Brown & Wynn, 2009). Empirical research on teacher retention rates presents several reasons that contribute to the decrease in retention rates. This study focused on principals' use of influence tactics on teachers from Texas with the goal of study findings adding to past and current research on the topic of gender, retention rates of teachers, and principals' use of influence tactics (Berkovich, 2017; Dupriez et al., 2015; Reid, 2020; Smith et al., 2013) through insights.

Problem Summary

The problem is that there are not enough teachers remaining in the profession to fill classroom vacancies in Texas public schools. The purpose of this quantitative, nonexperimental, cross-sectional, descriptive design (Creswell & Creswell, 2018; O'Dwyer & Bernauer, 2013)

study was to examine principals' use of influence tactics on teacher retention, as well as identify differences found in gender and the total number of years within teacher retention rates.

This study was guided by one theoretical framework, Yukl and Falbe's (1990) Influence Tactics; it built upon existing research focused on Texas teacher retention rates based on principal use of influence tactics. Influence tactics were divided into upward and downward appeals. The dependent variables in this study were the 11 influence tactics with the four independent variables being the number of years a teacher has remained at their current campus, the total number of years of teaching experience, participant gender, and principal gender. Previous studies focused on behaviors (Yukl, 2012) and gender influence based on the upward appeal (Smith et al., 2013), but few have attempted to examine influence specific to the principal role and the effects on gender and teacher retention (Berkovich, 2017). Influence is also commonly studied in organizations like businesses, military, health, and sales fields (Plouffe et al., 2014), but not in the education field.

Study Overview

The gap in research based on current empirical data indicated that more studies were needed to determine if a relationship existed between principal use of influence tactics and teacher retention rates specific to teacher gender, teacher number of years at the current campus, and teacher total number of years of experience. The three research questions sought to examine principals' use of influence tactics on teacher retention, as well as identify differences found in gender and the total number of years within teacher retention rates. The research questions examined included:

RQ1: Is there a difference in principal's use of influence based on teacher gender?

RQ2: Is there a difference in teacher retention rates based on a principal's use of influence tactics?

RQ3: Is there a difference in a teacher's total number of years based on a principal's use of influence?

This study used a quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013) to examine principals' use of influence tactics on teacher retention, as well as identify differences found in gender and the total number of years within teacher retention rates within five school districts starting with the 784 zip code. Convenience sampling was used for this study; teachers completed the survey based on convenience and availability (Creswell, 2021). This study began with four demographic questions and was followed by 44 questions from the Influence Behavior Questionnaire (IBQ-G) (Yukl et al., 2008). Questions were loaded into Qualtrics to create the study survey. In mid-April of 2023, an email with the survey link was sent to 1,151 teachers from the five school districts in the greater Corpus Christi, TX area with a 784 zip code. Participants were given 10 business days to respond to the survey. After the missing data was removed, the sample size used for analysis yielded $n = 60$. Descriptive statistics were used to describe the survey data and ensure the normality of the data. Data analysis used an independent samples t test and one-way ANOVA (Cronk, 2019) with two assumptions examined for each of the two statistical tests. All research questions were also tested for normal distribution. An independent samples t test was conducted to compare the mean of a single sample; a one-way ANOVA tested the difference for each of the independent variables against the dependent variables.

Summary of Findings and Conclusions

This section provides the summary of the findings and conclusions to the three research questions posed in which this study was designed. This study used a quantitative, nonexperimental, cross-sectional, descriptive design (O'Dwyer & Bernauer, 2013) to examine principals' use of influence tactics on teacher retention, as well as identifying differences found in gender and the total number of years within teacher retention rates. Study findings are beneficial and support previous findings that principal influence tactics have a statistically significant difference in teacher retention rates. Connections to previous study findings are also included. This study contributed to closing the gap in the literature regarding the principal use of influence, gender, and teacher retention (Cheung et al., 2016; Yukl, 2012). The study findings support the education field by providing statistical data specific to teacher gender, retention rates, and principal use of influence tactics, along with their connections and impacts. Findings will provide educators and principals with information specific to influence tactics and their impact on teachers that lead to teachers remaining in the teaching profession.

Previous studies found that one of the main reasons teachers leave the teaching field is due to dissatisfaction with support from the school administration (Zavelevsky et al., 2021). Lazcano et al. (2022) reported that schools with principals, who focus on students' learning, have higher teacher retention rates; principals influence teachers' decisions to not only remain at their current school but in the education field. Additional studies found that principals who retain teachers share a common belief that strong instructional, operational, and strategic leadership have equal importance (Zavelevsky et al., 2021). The demographic findings of this study conflict with past research findings that show teachers are remaining at their current campus and in the teaching profession. The highest percentages reported were in the category 0-5 years under years

of teaching experience and the number of years teaching at the current campus demographic questions. More specifically, 55% of participants were in the category 0-5 years at their campus. The findings confirmed the study's problem statement— retention rates are decreasing and there is a need for concern.

The findings of this study add to the current research on the topic of gender in education and principals' use of influence tactics (Berkovich, 2017; Dupriez et al., 2015; Reid, 2020; Smith et al., 2013). Analysis conducted on the study's demographic data provided valuable information about the participants in this study. Results for the first and second demographic questions showed that the majority of participants and the majority of participants' principals are females. These findings conflict with past research findings that showed the male gender in dominant school leadership roles (Berkovich, 2017; Cheung et al., 2016; Murakami & Törnsten, 2017; Smith et al., 2013). Additional study results specific to gender came from RQ1. The mean for female and male, compared to each of the 11 influence tactics, all resulted in close ranges with there not being a significant difference regarding gender shown.

Findings regarding the number of years of teaching experience and retention rates also add to the research topic. Results for the third demographic question revealed that 30% of participants had 0-5 years of teaching experience, 23% with 6-10 years of teaching experience, 25% with 11-20 years of teaching experience, and 21.7% with 21-30 years of teaching experience. Results for the final demographic question showed 55% of participants had 0-5 years teaching at their current campus, 28% with 6-10 years, 11.7% with 11-20 years, and 5% with 21-30 years. The third and fourth demographic questions showed most participants fell within the category 0-5 years. These findings confirmed the study's problem statement that not enough teachers are remaining in the profession to fill classroom vacancies in Texas public schools.

A surprising finding came from the independent variable descriptive statistics summary. All influence tactics ranged between 1 (never uses) and 3 (occasionally uses) with zero influence tactics having a range of 4 (moderately uses) or 5 (often uses) mean. It is possible that the IBQ-G survey language and identification of principal usage for influence do not align with a teacher's comfortability and may cause stress due to their principal being their supervisor. Teachers react, manage, and cope with stressful situations in different ways (Van Der Vyver et al., 2020). These findings are important for principals, especially principals in the districts studied and for principals in similar situations. It is important to note that the majority of teachers will report that their principal does not moderately or often use influence tactics. It is also possible that the principals associated with the data do not 4 (moderately use) or 5 (often use) the identified influence tactics; it is possible that they utilize a different approach.

Research Question 1

Research Question 1 used an independent samples *t* test and focused on the difference in principal's use of influence based on teacher gender. RQ1 compared the mean scores of the 11 influence tactics with teacher gender. The P value findings were all greater than 0.05. This results in no significant differences found; therefore, accepting the null hypothesis.

Smith et al. (2013) classified certain influence tactics as neutral. This means that certain influence tactics are not strongly linked to either intensity or roles. In this study, these were referred to as coercion intensity and appeal direction. Research Question 1 resulted in no significant differences found across all 11 influence tactics, regardless of gender, which builds upon findings (Smith et al., 2013) which previously only listed a portion of the 11 influence tactics as neutral.

In analyzing mean scores, four of the 11 influence tactics had female and male mean scores with a 1 (never uses). Five of the 11 influence tactics had female and male mean scores of 2 (seldom uses), and the remaining two influence tactics had both genders with a 3 (occasionally uses) mean score. The majority of mean scores falling in the lower end across the influence tactics informed that participants, regardless of gender, were never or seldom influenced by their principal's use of the identified influence tactics. The two influence tactics with a mean score of 3 (occasionally uses) were rational persuasion (RP) and inspirational appeal (IA). Rational persuasion (RP) and inspirational appeal (IA) are interestingly not similar in approach. Rational persuasion uses facts and inspiration appeals depends on having an emotional connection (Yukl et al., 2008). These findings are interesting because both genders found these two influence tactics with occasional use by principals. There was no difference between the teacher genders. Findings do not support that there is a difference between males and females regarding their experiences with influence tactics (Smith et al., 2013).

Finally, a key component of the study requested participants provide the gender of their principal. This allowed for an analysis of gender findings from the principal and teacher standpoint. Demographic results showed 75% of principals were female. Study findings revealed that according to teachers, female principals do have limited use of influence tactics and this information confirms females refrain from using influence tactics due to gender conforming (Cheung et al., 2016).

Research Question 2

Research Question 2 used a one-way ANOVA test to compare the principal use of each of the 11 influence tactics from the retention rate at a campus (Cronk, 2019). Results showed two influence tactics, ingratiating (IN) and legitimating (LG) with significant outcomes. The

remaining nine influence tactics had equal variances assumed except for coalition (CT). For this tactic, a Welch Test was run.

For IN, teachers in the category 6-10 years for campus retention were significantly different than the teachers in the category 0-5 years. These findings were revealed by running a post-hoc analysis, Tukey's method. For the second influence tactic with a significant outcome, LG, there were significant differences between the category 21-30 years for campus retention and two other categories. The two categories were the 0-5 year and 11-20 year. Teachers in the category 6-10 years did not show a significant difference with the category 21-30 years. These findings were revealed by running a post-hoc analysis, Tukey's method.

The mean score findings for all 11 influence tactics compared to retention at a campus revealed two influence tactics with 1 (never uses) across all year categories. The two influence tactics identified were coalition (CT) and personal appeals (PA). Coalition (CT) uses support from others and personal appeals (PA) includes requests made of friendship (Yukl et al., 2008). Both influence tactics involve another person in the approach. Findings suggest principals were not utilizing these two influence tactics; this may be the result of not having an additional individual to call upon to fulfill the tactic. Insight into reasons a principal does not have another person to call upon is due to many factors. Factors include staffing schedules or lack of support from co-workers (Williams et al., 2016), which results in not having the ability to carry out the influence tactic.

Findings also show that teachers do not experience any of the 11 influence tactics often. Teachers might have limited experience with influence tactics from the principal may be the result of the principal not understanding influence or how to utilize and execute the tactics with teachers. This insight supported past literature findings which explain that principals need

knowledge and understanding of people and that principal preparation programs need to include formal, informal, and experiential components (Slater et al., 2018). The study findings clearly showed that teachers across all the different year categories had a similar understanding of influence tactics and how to identify influence tactic ranges when used by principals. Principals can use study findings and literature to enhance their personal knowledge regarding influence tactic approaches and apply them toward practice. This approach has the potential to lead to cohesion and trust (Price, 2011), which would result in more teachers remaining in the classroom, thus increasing teacher retention rates.

Van Der Vyer et al. (2020) found that poor teacher retention rates were linked to principal behaviors. Additional studies specific to retention rates found that teachers who left within the first three years either saw teaching as a short-term job, experienced negative feelings toward their teaching abilities, or reported minimal support and resources (Brown & Wynn, 2009). RQ2 study findings specific to IN and LG both show differences from the category 0-5 years. These findings supported Zavelevsky et al.'s (2021) research that past studies found that new teachers with a positive view of their principal had a lower desire to leave and those that did leave attributed their departure to the lack of principal support.

Research Question 3

Research Question 3 used a one-way ANOVA test (Cronk, 2019) and focused on the difference in a teacher's total number of years based on a principal's use of influence. No significant differences were found for the 11 influence tactics. This is due to each mean reported for each year category being grouped with each influence tactic all resulting in $p > 0.05$.

The mean score findings for all 11 influence tactics compared to a teacher's total number of years revealed three influence tactics with 1 (never uses) across all year categories. Coalition

(CT) and personal appeals (PA) were two of the three influence tactics identified and this finding was similar to RQ2 findings. The one difference was RQ3 included the pressure (PR) influence tactic that also had the 1 (never uses) mean. Pressure involves demands and threats (Yukl et al., 2008). The manipulation feeling (Mahajan & Templer, 2021) a teacher gets from the pressure is potentially a similar feeling one gets from coalition and personal appeal influence since it involves another individual on the influencer's side. Similar to RQ2, the findings showed teachers understand the definitions of each influence tactic and that there is a similar identification of principal use of influence tactic range amongst teachers with different years of experience.

Research from Al-Mahdy et al. (2018) found that principals contribute to the commitment of their teachers both directly through practices associated with active instructional leadership and indirectly by shaping the collective efficacy of their teaching faculty. Findings from their study results affirmed that principal influence contributes to teacher commitment (Al-Mahdy et al., 2018). Study results confirmed Price's (2011) and Van Der Vyver et al. (2020) findings that principals' actions and behaviors positively affect and influence teacher satisfaction and commitment levels.

The reason certain influence tactics were not significantly different may be due to the terminology and descriptions used in the statements. Teachers may have seen the word "influence" and consequently think of principal influence in a negative way. This may a result of influence being considered a political behavior (Friedman & Berkovich, 2021; Yukl, 2012). This study addressed the gap in the literature that revealed the need for information on influence, which includes the role and the effects of gender on principal-teacher relationships (Berkovich, 2017).

Implications

The following section reviews the theoretical and practical implications. The study findings provide new and additional information on the implications. Influence tactics studied with a gender component impact and strengthened the influence tactic theory (Yukl & Falbe, 1990). In addition, the strengths and weaknesses of this study are discussed.

Theoretical

This study's theoretical framework, Yukl and Falbe's (1990) influence tactic theory, focused on approaches and tactics that are used to accomplish compliance and agreement in working relationships from multiple positions (Liu et al., 2018). Study results contribute to the understanding of influence tactics because they provide relevant and current data for each influence tactic based on today's teachers and principals. Utilizing the influence tactics theoretical framework in the educational setting is contributing to the spread and growth of this theory because it is entering into additional environments and areas. Descriptive findings further the information specific to the theory because they provide statistics not only about gender but also related to individual influence tactics and intensities. Study results showing all influence tactics' mean range between 1 (never uses) and 3 (occasionally uses). There were zero influence tactics with a range of 4 (moderately uses) or 5 (often uses), which contributes to specifics regarding tactic ranges within the theory. It also furthers understanding specific to principal-teacher working relationships in today's educational environment, which is different from the ones of the past.

Practical

The practical implications connected to this study impact principal influence and Texas teacher retention. The first practical implication is equipping campus and district leaders with the

knowledge and skills to identify the most impactful influence tactics that lead to higher retention rates. School districts implementing the IBQ-G survey with their teachers at the beginning and end of each school year will lead to principals' development of a better understanding of their influence and its role in teacher retention rates. Brauckmann et al. (2020) explained that most principals prepare and learn from generic content that does not acknowledge the specificities of localities and the variations and influence of cultural contexts. The implementation of the IBQ-G survey will provide specific data on actual teachers that they serve and influence.

The second practical implication is to strengthen the teacher pipeline in the K-12 setting (high school) as well as improve teacher preparation programs. Teacher preparation programs are a pipeline for developing teachers who will remain in the profession. Data shows that the number of completers in teacher preparation programs have been decreasing (Freeman et al., 2013). Utilizing study findings like the influence tactic mean scores along with the maximum statistical results for each influence tactic provided on the descriptive statistics allows the opportunity to update, improve, and strengthen the curriculum used in preparation programs specific to the principal use of influence tactics. This has the potential to increase teacher retention rates because their learning is not theory-based but guided by current and relevant data.

The final practical implication is student learning will suffer if teacher retention continues to decrease and teacher vacancies remain unfilled. Teacher vacancies affect numerous areas such as the internal efficiency of schools, but they negatively affect student learning (Lazcano et al., 2022). According to Dupriez et al. (2015), the teaching profession is becoming less attractive, resulting in fewer people entering the teaching profession. Having a fewer number of teachers limits the possibility of principal influence improving teacher retention rates.

Limitations

Study limitations included the final sample size, length of the survey, and inconsistency with the delivery of study participation requests to teachers. The study's final sample of $n = 60$ participants is considered a limitation because there was potential for a higher response rate with all districts represented. Since participants remained anonymous, there is a possibility not all districts are represented in the final sample size or certain districts were part of the incomplete submissions that were removed. Not having representation from all five school districts impacts study results because the objective was to have all five school districts represented throughout the study findings.

An additional limitation included the length of the survey. The survey results consisted of 44 items; the time needed to complete the entire survey might have been problematic for participants. The majority of the deleted data had responses for the four demographic questions but the questions specific to the principal use of influence tactic questions remained unanswered. A closer review of incomplete responses showed participants stopped after completing the four demographic questions. As a result, 56 surveys were deleted from the data set and the study had a 5% response rate. Deleted surveys impact the study results because they resulted in a low response rate percentage.

The inconsistency with the delivery of study participation requests to teachers is also a limitation. The researcher worked with three superintendents from different school districts; they wanted to be the person responsible for sending out the study participation request email to their teachers. As a result of the superintendents' decision to send out the surveys in these three districts, there is a possibility the email request was not successfully delivered to all teachers or not all teachers who did receive the request may have not felt comfortable with completing the

survey truthfully. Since teachers received an email directly from their superintendent, it may have caused some teachers to question if their responses would remain anonymous. This perception could have impacted the study results if false or inaccurate responses were used in the final data set.

Recommendations

The study findings indicated that a statistically significant difference was present in one of the study's research questions. The research question, RQ2, which focused on the principal use of influence tactics and retention rates revealed a significant difference. Previous research identified the need to study different categories of influence tactics in the fields of business and military (Plouffe et al., 2014). This study was important because it identified the variables of IN and LG influence tactics; these results showed statistically significant differences in principal use of influence and teacher retention rates at a campus.

Future Research

Recommendations for future research stem from study findings and limitations specific to this study, along with previous recommendations from related studies. Future research should combine some category options for the four different years in the demographic questions. Research Question 2 was the only question that had two influence tactics, rational persuasion (RP) and legitimating (LG), with a principal influence mean in the 4 (moderately uses) mean range and they both happened to be in the category 21-30 years of campus retention. The rarity of 4 (moderately uses) may be due to participants in the lower year categories not feeling comfortable in their current position to report that their principal uses certain influence tactics moderately or often. Combining categories of years may have resulted in a logical growth in mean because it was also tied to participant comfort with being fully honest with experience.

The second recommendation is to clearly define the “influence” term in the questionnaire instruction section or reword it to eliminate confusion with a negative connotation. Dang et al. (2019) explained influence’s goal is to encourage compliance and agreement behaviors from multiple positions. The negative connotation may deter participants from following through with answering truthfully if there is a belief that complying and agreeing is not always the right decision. In all three research questions and the majority of influence tactics, patterns in mean response showed between 1 (never uses) and 3 (occasionally uses) for principal use of influence. This finding remained consistent regardless of the independent variable. Fear of retaliation may also play a role in participants’ submitted responses regarding how often their principal uses an influential behavioral tactic.

The third recommendation is to ensure teacher email addresses are in the researcher’s possession in a saved file. The researcher maintaining an email file with teacher email addresses will allow for accurate tracking. This recommendation will allow the researcher to confirm the successful delivery of the study email requesting participation, along with obtaining documentation on the number of unsuccessful email deliveries. This information is important for future study findings.

The fourth recommendation is to include building-level identification as part of the demographic questions. Building level identification for the teacher and the principal would be specific to the K-12 setting. This includes elementary, middle, or high school level identification. Demographics specific to building levels allow for an even more in-depth analysis of influence tactics and their impacts across the K-12 setting.

The final recommendation is to not go through a third party to deliver the study email requesting participation. In this study, some teachers may not have felt comfortable with

completing a survey truthfully since the email request was sent by a superior. Teachers receiving an email directly from their superintendent may have had some teachers question if their responses would remain anonymous.

Future Practice

Study findings lead to recommendations for future practice. One future practice to be considered from this study includes school districts implementing the IBQ-G survey to teachers at the beginning and end of each school year. This implementation will assist with developing a better understanding of principal influence and its role in teacher retention rates. Findings will benefit school districts, especially school districts that find themselves competing for the same teachers in a specific area.

The next recommendation for future practice is to equip campus principals and district leaders with knowledge and skills to identify the most impactful influence tactics that lead to higher retention rates based on survey results and findings. Principal professional development and training specific to influence tactics will strengthen a principal's skills and ability to positively influence teachers.

The final recommendation is to strengthen the teacher pipeline in the K-12 setting and teacher preparation programs. It is important to note that the beginning years of teaching are the years' professional development is most vital (Zavelevsky et al., 2021). School districts and higher ed partnerships should include the review of current and local teacher vacancy data and trends to guide curriculum and professional development that is relevant and impactful. Goal setting, next step practices, and follow through also have the potential to improve teacher preparation programs at the K-12 and post-secondary settings.

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APPENDIX A: IRB APPROVAL



Date: April 19, 2023
To: Christopher Benedetti PhD
CC: Vanessa Perez
From: Office of Research Compliance
Subject: Exempt Determination

Dear Christopher Benedetti, PhD,

On 04/19/2023, the Texas A&M University IRB - Corpus Christi Institutional Review Board reviewed the following submission:

Title of Study: Texas Teacher Retention Based on Principal Use of Influence Tactics
Principal Investigator: Christopher Benedetti
IRB Number: TAMU-CC-IRB-2023-0795
Submission Outcome: Exempt Determination
Approval Date: 04/19/2023

Texas A&M University IRB - Corpus Christi Institutional Review Board has reviewed the above-referenced submission and has determined the project is exempt. This submission was approved by the review process in accordance with the policies and procedures of the Human Research Protection Program. Therefore, this project has been determined to be exempt under the following category:

Exempt Category: Category 2: Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by .111(a)(7).

You may proceed with this project.

This approval corresponds with the versions of the application and attachments in the electronic system most recently approved as of the date of this letter.

A Reminder of Investigator Responsibilities: As principal investigator, you must ensure:

1. **Informed Consent:** Ensure informed consent processes are followed and information presented enables individuals to voluntarily decide whether to participate in research.
2. **Amendments:** This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. Any planned changes require an amendment to be submitted to the IRB to ensure that the research continues to meet the criteria for exemption. The



RESEARCH & INNOVATION

Amendment must be approved before being implemented.

3. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted.
4. **Records Retention:** All research-related records must be retained for three (3) years beyond the completion date of the study in a secure location. At a minimum, these documents include the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB or, and any other pertinent documents.
5. **Adverse Events:** Adverse events must be reported to the IRB immediately.
6. **Post-approval monitoring:** Requested materials for post-approval monitoring must be provided by the dates requested.

If you have any questions or concerns please contact us at irb@tamucc.edu.

Sincerely,

Rebecca Ballard, JD
Office of Research Compliance

APPENDIX B: INFLUENCE BEHAVIOR QUESTIONNAIRE

8/11/25, 9:35 AM

Qualtrics Survey Software

Default Question Block

Please select one response to the following four demographic items.

Select your gender.

- ☐ Female
- ☐ Male
- ☐ Non-binary / third gender
- ☐ Prefer not to say

Select the gender of your principal.

- ☐ Female
- ☐ Male
- ☐ Non-binary / third gender
- ☐ Prefer not to say

Enter the number of years you have worked as a teacher (must be a numeric response).

Enter the number of years you have been teaching at current campus? (must be a numeric response).

Questionnaire Instructions: The purpose of this questionnaire is to learn more about how principals may influence teachers. For the following 44 items, please select the option that best describes how often your principal uses each behavioral tactic when interacting with you. Be sure to use your experiences, rather than general impressions of your principal, to guide your response.

1. My principal explains clearly why a request or proposed change is necessary to attain a task objective.

- ☐ I can't remember my principal ever using this tactic with me

https://pantheon.001.qualtrics.com/Q/ESSESection18/Block1/AndGetSurveyPrintPreview?CompletedSurveyID=SV_2JAY2B0NYhp8Eq&ContentLibraryID=URL... 1/13

- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

6. My principal offers to do something for me in exchange for carrying out a request.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

7. My principal says a proposed activity or change is an opportunity to do something really exciting and worthwhile.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

6. My principal offers to do a specific task or favor for me in return for my help and support.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

9. My principal describes a clear, inspiring vision of what a proposed project or change could accomplish.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me

- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

10. My principal says that his/her request or proposal is consistent with official rules and policies.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

11. My principal explains how the task he/she wants me to do could help my career.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

12. My principal makes an inspiring speech or presentation to arouse enthusiasm for a proposed activity or change.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

13. My principal says that a request or proposal is consistent with prior precedent and established practice.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me

- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

14. My principal offers to do something for me in the future in return for my help now.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

15. My principal explains why a proposed project or change would be practical and cost effective.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

16. My principal says that a request or proposal is consistent with a prior agreement or contract.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

17. My principal explains how a proposed activity or change could help me attain a personal objective.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me

- ☐ My principal uses this tactic very often with me

22. My principal demands that I carry out a request.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

23. My principal offers to provide resources I would need to do a task for him/her.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

24. My principal asks for my help as a personal favor.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

25. My principal tries to pressure me to carry out a request.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

26. My principal says he/she needs to ask for a favor before telling me what it is.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

27. My principal offers to show me how to do a task that he/she wants me to carry out.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

28. My principal repeatedly checks to see if I have carried out a request.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

29. My principal asks me to suggest things I could do to help him/her achieve a task objective or resolve a problem.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

30. My principal offers to help with a task that he/she wants me to carry out.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

31. My principal offers to provide any assistance I would need to carry out a request.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

32. My principal praises my past performance or achievements when asking me to do a task for him/her.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

33. My principal says I am the most qualified person for a task that he/she wants you to do.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

34. My principal says I have the special skills or knowledge needed to carry out a request.

- ☐ I can't remember my principal ever using this tactic with me

- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

35. My principal consults with me to get my ideas about a proposed activity or change that he/she wants me to support or implement.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

36. My principal invites me to suggest ways to improve a preliminary plan or proposal that he/she wants me to support or help implement.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

37. My principal appeals to friendship when asking you to do something.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

38. My principal brings someone along for support when meeting with me to make a request or proposal.

- ☐ I can't remember my principal ever using this tactic with me

- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

39. My principal praises my skill or knowledge when asking me to do something.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

40. My principal asks me as a friend to do a favor for him/her.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

41. My principal encourages me to express any concerns I may have about a proposed activity or change that he/she wants me to support or implement.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

42. My principal mentions the names of other people who endorse a proposal when asking me to support it.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me

- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

43. My principal gets others to explain to me why they support a proposed activity or change that he/she wants me to support or help implement.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

44. My principal asks someone I respect to help influence me to carry out a request or support a proposal.

- ☐ I can't remember my principal ever using this tactic with me
- ☐ My principal very seldom uses this tactic with me
- ☐ My principal occasionally uses this tactic with me
- ☐ My principal uses this tactic moderately often with me
- ☐ My principal uses this tactic very often with me

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APPENDIX C: TABLES

Table C1

Research Question 1: T Test Shapiro Wilk and Skewness and Kurtosis

<i>Descriptives</i>				
Select your gender.		Statistic		Std. Error
RP_Mean: Mean score of Female items 1, 2, 4, and 15	Mean		3.3777	.16761
	95% Confidence Interval for Mean	Lower Bound	3.0403	
		Upper Bound	3.7150	
	5% Trimmed Mean		3.4176	
	Median		3.5000	
	Variance		1.320	
	Std. Deviation		1.14905	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.75	
	Skewness		-.411	.347
	Kurtosis		-.831	.681
Male	Mean		3.2115	.33950
	95% Confidence Interval for Mean	Lower Bound	2.4718	
		Upper Bound	3.9512	
	5% Trimmed Mean		3.2489	
	Median		3.7500	
	Variance		1.498	
	Std. Deviation		1.22409	
	Minimum		1.00	

IA_Mean: Mean score of items 3, 7, 9, and 12	Maximum		4.75	
	Range		3.75	
	Interquartile Range		2.25	
	Skewness		-.464	.616
	Kurtosis		-1.157	1.191
	Mean		3.1809	.15068
	95% Confidence Interval for Mean	Lower Bound	2.8775	
		Upper Bound	3.4842	
	5% Trimmed Mean		3.2069	
	Median		3.2500	
	Variance		1.067	
	Std. Deviation		1.03302	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.50	
	Skewness		-.246	.347
	Kurtosis		-.566	.681
Male	Mean		3.1538	.35189
	95% Confidence Interval for Mean	Lower Bound	2.3871	
		Upper Bound	3.9206	
	5% Trimmed Mean		3.1432	
	Median		3.5000	
	Variance		1.610	
	Std. Deviation		1.26877	
	Minimum		1.50	
	Maximum		5.00	
	Range		3.50	

		Interquartile Range	2.38	
		Skewness	.080	.616
		Kurtosis	-1.354	1.191
EX_Mean: Mean score of Female items 5, 6, 8, and 14		Mean	1.6862	.10926
	95% Confidence Interval for Mean	Lower Bound	1.4662	
		Upper Bound	1.9061	
	5% Trimmed Mean		1.6256	
	Median		1.5000	
	Variance		.561	
	Std. Deviation		.74904	
	Minimum		1.00	
	Maximum		3.75	
	Range		2.75	
	Interquartile Range		1.00	
	Skewness		.987	.347
	Kurtosis		.131	.681
Male		Mean	1.7308	.25074
	95% Confidence Interval for Mean	Lower Bound	1.1845	
		Upper Bound	2.2771	
	5% Trimmed Mean		1.6731	
	Median		1.2500	
	Variance		.817	
	Std. Deviation		.90405	
	Minimum		1.00	
	Maximum		3.50	
	Range		2.50	
	Interquartile Range		1.38	
	Skewness		1.061	.616

		Kurtosis	-.263	1.191
AP_Mean: Mean score of Female items 11, 17, 19, and 21	Mean		2.2340	.15120
	95% Confidence Interval for Mean	Lower Bound	1.9297	
		Upper Bound	2.5384	
	5% Trimmed Mean		2.1649	
	Median		2.0000	
	Variance		1.074	
	Std. Deviation		1.03657	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.25	
	Skewness		.930	.347
	Kurtosis		.375	.681
Male	Mean		2.0769	.39769
	95% Confidence Interval for Mean	Lower Bound	1.2104	
		Upper Bound	2.9434	
	5% Trimmed Mean		1.9744	
	Median		1.2500	
	Variance		2.056	
	Std. Deviation		1.43391	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.63	
	Skewness		1.071	.616
	Kurtosis		-.457	1.191
Female		Mean	2.7606	.13854

LG_Mean: Mean score of items 10, 13, 16, and 20	95% Confidence Interval for Mean	Lower Bound	2.4818
		Upper Bound	3.0395
	5% Trimmed Mean		2.7698
	Median		2.7500
	Variance		.902
	Std. Deviation		.94977
	Minimum		1.00
	Maximum		4.50
	Range		3.50
	Interquartile Range		1.25
	Skewness		-.064 .347
	Kurtosis		-.779 .681
Male	Mean		2.8654 .39388
	95% Confidence Interval for Mean	Lower Bound	2.0072
		Upper Bound	3.7236
	5% Trimmed Mean		2.8504
	Median		2.5000
	Variance		2.017
	Std. Deviation		1.42015
	Minimum		1.00
	Maximum		5.00
	Range		4.00
	Interquartile Range		2.88
	Skewness		.391 .616
	Kurtosis		-1.482 1.191
PR_Mean: Mean score of items 18, 22, 25, and 28	Mean		1.5053 .10215
	95% Confidence Interval for Mean	Lower Bound	1.2997
		Upper Bound	

		Upper Bound	1.7109
		5% Trimmed Mean	1.4226
		Median	1.2500
		Variance	.490
		Std. Deviation	.70033
		Minimum	1.00
		Maximum	3.50
		Range	2.50
		Interquartile Range	.75
		Skewness	1.830 .347
		Kurtosis	2.578 .681
Male	Mean		1.4808 .21270
	95% Confidence Interval for Mean	Lower Bound	1.0173
		Upper Bound	1.9442
	5% Trimmed Mean		1.4092
	Median		1.2500
	Variance		.588
	Std. Deviation		.76690
	Minimum		1.00
	Maximum		3.25
	Range		2.25
	Interquartile Range		.63
	Skewness		1.825 .616
	Kurtosis		2.235 1.191
	Mean		2.5532 .15545
CB_Mean: Mean score of Female items 23, 27, 30, and 31	95% Confidence Interval for Mean	Lower Bound	2.2403
		Upper Bound	2.8661

		5% Trimmed Mean	2.5334
		Median	2.5000
		Variance	1.136
		Std. Deviation	1.06569
		Minimum	1.00
		Maximum	4.75
		Range	3.75
		Interquartile Range	1.50
		Skewness	.232 .347
		Kurtosis	-.929 .681
Male	Mean		2.3846 .34041
	95% Confidence Interval for Mean	Lower Bound	1.6429
		Upper Bound	3.1263
	5% Trimmed Mean		2.3857
	Median		2.5000
	Variance		1.506
	Std. Deviation		1.22736
	Minimum		1.00
	Maximum		3.75
	Range		2.75
	Interquartile Range		2.63
	Skewness		-.005 .616
	Kurtosis		-2.106 1.191
PA_Mean: Mean score of Female items 24, 26, 37, and 40	Mean		1.3298 .08402
	95% Confidence Interval for Mean	Lower Bound	1.1607
		Upper Bound	1.4989
	5% Trimmed Mean		1.2397
	Median		1.0000

			Variance	.332
			Std. Deviation	.57603
			Minimum	1.00
			Maximum	3.75
			Range	2.75
			Interquartile Range	.50
			Skewness	2.553 .347
			Kurtosis	7.339 .681
Male	Mean		1.3462	.22025
	95% Confidence Interval for Mean	Lower Bound	.8663	
		Upper Bound	1.8260	
	5% Trimmed Mean		1.2596	
	Median		1.0000	
	Variance		.631	
	Std. Deviation		.79411	
	Minimum		1.00	
	Maximum		3.25	
	Range		2.25	
CN_Mean: Mean score of Female items 29, 35, 36, and 41	Interquartile Range		.13	
	Skewness		2.165 .616	
	Kurtosis		3.272 1.191	
	Mean		2.8298	.17474
	95% Confidence Interval for Mean	Lower Bound	2.4781	
		Upper Bound	3.1815	
	5% Trimmed Mean		2.8189	
	Median		2.7500	
	Variance		1.435	
	Std. Deviation		1.19794	

IN_Mean: Mean score of items 32, 33, 34, and 39	Male	Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
		Interquartile Range	2.00	
		Skewness	-.092	.347
		Kurtosis	-1.187	.681
		Mean	2.1154	.26496
		95% Confidence Interval for Mean	Lower Bound	1.5381
			Upper Bound	2.6927
		5% Trimmed Mean	2.0726	
		Median	2.0000	
		Variance	.913	
		Std. Deviation	.95533	
		Minimum	1.00	
		Maximum	4.00	
		Range	3.00	
		Interquartile Range	2.00	
		Skewness	.364	.616
		Kurtosis	-.510	1.191
	Female	Mean	2.5160	.18523
		95% Confidence Interval for Mean	Lower Bound	2.1431
			Upper Bound	2.8888
		5% Trimmed Mean	2.4642	
		Median	2.2500	
		Variance	1.613	
		Std. Deviation	1.26985	
		Minimum	1.00	
		Maximum	5.00	

Male	Range		4.00
	Interquartile Range		1.75
	Skewness		.499 .347
	Kurtosis		-.846 .681
	Mean		2.3077 .35486
	95% Confidence Interval for Mean	Lower Bound	1.5345
		Upper Bound	3.0809
	5% Trimmed Mean		2.2308
	Median		2.0000
	Variance		1.637
	Std. Deviation		1.27946
	Minimum		1.00
	Maximum		5.00
	Range		4.00
	Interquartile Range		2.38
	Skewness		.653 .616
	Kurtosis		-.296 1.191
CT_Mean: Mean score of Female items 38, 42, 43, and 44	Mean		1.4840 .07769
	95% Confidence Interval for Mean	Lower Bound	1.3277
		Upper Bound	1.6404
	5% Trimmed Mean		1.4368
	Median		1.2500
	Variance		.284
	Std. Deviation		.53264
	Minimum		1.00
	Maximum		3.00
	Range		2.00
	Interquartile Range		1.00

Male	Skewness		.946	.347
	Kurtosis		.235	.681
	Mean		1.3462	.19721
	95% Confidence Interval for Mean	Lower Bound	.9165	
		Upper Bound	1.7758	
	5% Trimmed Mean		1.2735	
	Median		1.0000	
	Variance		.506	
	Std. Deviation		.71106	
	Minimum		1.00	
	Maximum		3.00	
	Range		2.00	
	Interquartile Range		.38	
	Skewness		1.901	.616
	Kurtosis		2.294	1.191

Tests of Normality

	Select your gender.	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
RP_Mean: Mean score of items 1, 2, 4, and 15	Female	.153	47	.008	.941	47	.020
	Male	.208	13	.126	.917	13	.227
IA_Mean: Mean score of items 3, 7, 9, and 12	Female	.144	47	.016	.966	47	.189
	Male	.147	13	.200*	.917	13	.227
EX_Mean: Mean score of items 5, 6, 8, and 14	Female	.209	47	<.001	.848	47	<.001
	Male	.241	13	.038	.802	13	.007
AP_Mean: Mean score of items 11, 17, 19, and 21	Female	.153	47	.007	.908	47	.001
	Male	.282	13	.006	.759	13	.002
LG_Mean: Mean score of items 10, 13, 16, and 20	Female	.097	47	.200*	.966	47	.181
	Male	.169	13	.200*	.895	13	.114

PR_Mean: Mean score of items 18, 22, 25, and 28	Female	.259	47	<.001	.712	47	<.001
	Male	.311	13	.001	.672	13	<.001
CB_Mean: Mean score of items 23, 27, 30, and 31	Female	.081	47	.200*	.952	47	.051
	Male	.226	13	.068	.796	13	.006
PA_Mean: Mean score of items 24, 26, 37, and 40	Female	.291	47	<.001	.632	47	<.001
	Male	.438	13	<.001	.493	13	<.001
CN_Mean: Mean score of items 29, 35, 36, and 41	Female	.141	47	.021	.939	47	.016
	Male	.186	13	.200*	.899	13	.128
IN_Mean: Mean score of items 32, 33, 34, and 39	Female	.126	47	.060	.912	47	.002
	Male	.180	13	.200*	.890	13	.097
CT_Mean: Mean score of items 38, 42, 43, and 44	Female	.223	47	<.001	.844	47	<.001
	Male	.456	13	<.001	.555	13	<.001
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Table C2*Research Question 2: Shapiro Wilk and Skewness and Kurtosis*

Descriptives				
		Number of years at campus by category.	Statistic	Std. Error
RP_Mean: Mean score of items 1, 2, 4, and 15	0-5	Mean	3.2197	.18520
		95% Confidence Interval for Mean	Lower Bound	2.8425
			Upper Bound	3.5969
		5% Trimmed Mean	3.2386	
		Median	3.2500	
		Variance	1.132	
		Std. Deviation	1.06389	
		Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
		Interquartile Range	1.63	
		Skewness	-.084	.409
		Kurtosis	-.852	.798
	6-10	Mean	3.5735	.29453
		95% Confidence Interval for Mean	Lower Bound	2.9492
			Upper Bound	4.1979
		5% Trimmed Mean	3.6373	
Median		4.0000		
Variance		1.475		
Std. Deviation		1.21438		
Minimum		1.00		
Maximum		5.00		

11-20	Range		4.00
	Interquartile Range		2.00
	Skewness		-.882 .550
	Kurtosis		-.414 1.063
	Mean		3.0714 .60679
	95% Confidence Interval for Mean	Lower Bound	1.5867
		Upper Bound	4.5562
	5% Trimmed Mean		3.0794
	Median		3.2500
	Variance		2.577
	Std. Deviation		1.60542
	Minimum		1.00
	Maximum		5.00
	Range		4.00
	Interquartile Range		3.25
	Skewness		-.212 .794
	Kurtosis		-1.901 1.587
21-30	Mean		4.0000 .28868
	95% Confidence Interval for Mean	Lower Bound	2.7579
		Upper Bound	5.2421
	5% Trimmed Mean		.
	Median		4.0000
	Variance		.250
	Std. Deviation		.50000
	Minimum		3.50
	Maximum		4.50
	Range		1.00
	Interquartile Range		.

		Skewness	.000	1.225
		Kurtosis	.	.
IA_Mean: Mean score of items 3, 7, 9, and 12	0-5	Mean	3.0833	.17532
		95% Confidence Interval for Mean	Lower Bound	2.7262
			Upper Bound	3.4404
		5% Trimmed Mean	3.0787	
		Median	3.2500	
		Variance	1.014	
		Std. Deviation	1.00714	
		Minimum	1.25	
		Maximum	5.00	
		Range	3.75	
		Interquartile Range	1.38	
		Skewness	.196	.409
		Kurtosis	-.687	.798
	6-10	Mean	3.4559	.25656
		95% Confidence Interval for Mean	Lower Bound	2.9120
			Upper Bound	3.9998
		5% Trimmed Mean	3.4788	
		Median	3.7500	
		Variance	1.119	
		Std. Deviation	1.05784	
		Minimum	1.50	
		Maximum	5.00	
		Range	3.50	
		Interquartile Range	1.50	
		Skewness	-.478	.550
		Kurtosis	-.536	1.063
	11-20	Mean	2.7857	.54398

		95% Confidence Interval for Mean	Lower Bound	1.4546			
			Upper Bound	4.1168			
		5% Trimmed Mean		2.7758			
		Median		3.2500			
		Variance		2.071			
		Std. Deviation		1.43925			
		Minimum		1.00			
		Maximum		4.75			
		Range		3.75			
		Interquartile Range		3.00			
		Skewness		-.154	.794		
		Kurtosis		-1.314	1.587		
		21-30		Mean		3.5000	.66144
				95% Confidence Interval for Mean	Lower Bound	.6541	
					Upper Bound	6.3459	
5% Trimmed Mean				.			
Median				3.7500			
Variance				1.313			
Std. Deviation				1.14564			
Minimum				2.25			
Maximum				4.50			
Range				2.25			
Interquartile Range				.			
Skewness				-.935	1.225		
Kurtosis				.	.		
EX_Mean: Mean score of items 5, 6, 8, and 14	0-5			Mean		1.6515	.12638
				95% Confidence Interval for Mean	Lower Bound	1.3941	

6-10			Upper Bound	1.9090
	5% Trimmed Mean			1.5960
	Median			1.5000
	Variance			.527
	Std. Deviation			.72602
	Minimum			1.00
	Maximum			3.50
	Range			2.50
	Interquartile Range			1.00
	Skewness			.858
	Kurtosis			-.155
	Mean			1.7206
	95% Confidence Interval for Mean	Lower Bound	1.3273	.18551
		Upper Bound	2.1138	
	5% Trimmed Mean			1.6479
11-20	Median			1.5000
	Variance			.585
	Std. Deviation			.76486
	Minimum			1.00
	Maximum			3.75
	Range			2.75
	Interquartile Range			1.00
	Skewness			1.298
	Kurtosis			1.620
	Mean			1.4286
	95% Confidence Interval for Mean	Lower Bound	.6768	.30723
		Upper Bound	2.1803	

		5% Trimmed Mean	1.3512	
		Median	1.2500	
		Variance	.661	
		Std. Deviation	.81284	
		Minimum	1.00	
		Maximum	3.25	
		Range	2.25	
		Interquartile Range	.25	
		Skewness	2.515	.794
		Kurtosis	6.477	1.587
21-30		Mean	2.6667	.58333
	95% Confidence Interval for Mean	Lower Bound	.1568	
		Upper Bound	5.1765	
	5% Trimmed Mean		.	
	Median		3.2500	
		Variance	1.021	
		Std. Deviation	1.01036	
		Minimum	1.50	
		Maximum	3.25	
		Range	1.75	
		Interquartile Range	.	
		Skewness	-1.732	1.225
		Kurtosis	.	.
AP_Mean: Mean score of items 11, 17, 19, and 21	0-5	Mean	2.1136	.16717
		95% Confidence Interval for Mean	Lower Bound	1.7731
			Upper Bound	2.4542
		5% Trimmed Mean		2.0370
		Median		2.2500

6-10	Variance		.922	
	Std. Deviation		.96033	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.38	
	Skewness		.943	.409
	Kurtosis		1.145	.798
	Mean		2.5000	.32723
	95% Confidence Interval for Mean	Lower Bound	1.8063	
		Upper Bound	3.1937	
	5% Trimmed Mean		2.4444	
	Median		2.0000	
	Variance		1.820	
	Std. Deviation		1.34919	
11-20	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.50	
	Skewness		.776	.550
	Kurtosis		-.954	1.063
	Mean		1.5714	.31203
	95% Confidence Interval for Mean	Lower Bound	.8079	
		Upper Bound	2.3349	
	5% Trimmed Mean		1.5099	
	Median		1.2500	
	Variance		.682	
	Std. Deviation		.82556	

		Minimum	1.00	
		Maximum	3.25	
		Range	2.25	
		Interquartile Range	1.00	
		Skewness	1.748	.794
		Kurtosis	2.942	1.587
21-30	Mean	2.9167	.96105	
	95% Confidence Interval for Mean	Lower Bound	-1.2184	
		Upper Bound	7.0517	
	5% Trimmed Mean	.		
	Median	3.7500		
	Variance	2.771		
	Std. Deviation	1.66458		
	Minimum	1.00		
	Maximum	4.00		
	Range	3.00		
0-5	Interquartile Range	.		
	Skewness	-1.688	1.225	
	Kurtosis	.	.	
	Mean	2.6212	.15198	
	95% Confidence Interval for Mean	Lower Bound	2.3116	
		Upper Bound	2.9308	
	5% Trimmed Mean	2.5901		
	Median	2.5000		
	Variance	.762		
	Std. Deviation	.87304		
LG_Mean: Mean score of items 10, 13, 16, and 20	Minimum	1.00		
	Maximum	5.00		

6-10	Range		4.00	
	Interquartile Range		1.00	
	Skewness		.560	.409
	Kurtosis		.467	.798
	Mean		3.0882	.28028
	95% Confidence Interval for Mean	Lower Bound	2.4941	
		Upper Bound	3.6824	
	5% Trimmed Mean		3.1119	
	Median		3.5000	
	Variance		1.335	
	Std. Deviation		1.15563	
	Minimum		1.00	
	Maximum		4.75	
	Range		3.75	
	Interquartile Range		2.13	
	Skewness		-.381	.550
	Kurtosis		-1.051	1.063
11-20	Mean		2.1071	.38132
	95% Confidence Interval for Mean	Lower Bound	1.1741	
		Upper Bound	3.0402	
	5% Trimmed Mean		2.0913	
	Median		2.2500	
	Variance		1.018	
	Std. Deviation		1.00889	
	Minimum		1.00	
	Maximum		3.50	
	Range		2.50	
	Interquartile Range		2.25	

		Skewness	.287	.794
		Kurtosis	-1.521	1.587
21-30	Mean		4.4167	.22048
	95% Confidence Interval for Mean	Lower Bound	3.4680	
		Upper Bound	5.3653	
	5% Trimmed Mean		.	
	Median		4.5000	
	Variance		.146	
	Std. Deviation		.38188	
	Minimum		4.00	
	Maximum		4.75	
	Range		.75	
	Interquartile Range		.	
		Skewness	-.935	1.225
		Kurtosis	.	.
PR_Mean: Mean score of items 18, 22, 25, and 28	0-5	Mean	1.3939	.10662
		95% Confidence Interval for Mean	1.1768	
			1.6111	
		5% Trimmed Mean		1.3152
		Median		1.2500
		Variance		.375
		Std. Deviation		.61247
		Minimum		1.00
		Maximum		3.50
		Range		2.50
		Interquartile Range		.63
		Skewness	2.047	.409
		Kurtosis	4.045	.798
	6-10	Mean	1.5147	.16808

	95% Confidence Interval for Mean	Lower Bound	1.1584	
		Upper Bound	1.8710	
	5% Trimmed Mean		1.4330	
	Median		1.2500	
	Variance		.480	
	Std. Deviation		.69299	
	Minimum		1.00	
	Maximum		3.50	
	Range		2.50	
	Interquartile Range		.38	
	Skewness		2.226	.550
	Kurtosis		4.523	1.063
	11-20	Mean	1.6071	.33120
	95% Confidence Interval for Mean	Lower Bound	.7967	
		Upper Bound	2.4176	
	5% Trimmed Mean		1.5357	
	Median		1.2500	
	Variance		.768	
	Std. Deviation		.87627	
	Minimum		1.00	
	Maximum		3.50	
	Range		2.50	
	Interquartile Range		.75	
	Skewness		2.166	.794
	Kurtosis		5.002	1.587
	21-30	Mean	2.3333	.68211
	95% Confidence Interval for Mean	Lower Bound	-.6016	

		Upper Bound	5.2682	
		5% Trimmed Mean	.	
		Median	2.7500	
		Variance	1.396	
		Std. Deviation	1.18145	
		Minimum	1.00	
		Maximum	3.25	
		Range	2.25	
		Interquartile Range	.	
		Skewness	-1.390	1.225
		Kurtosis	.	.
CB_Mean: Mean score of items 23, 27, 30, and 31	0-5	Mean	2.3712	.17547
		95% Confidence Interval for Mean	Lower Bound	2.0138
			Upper Bound	2.7286
		5% Trimmed Mean	2.3262	
		Median	2.2500	
		Variance	1.016	
		Std. Deviation	1.00802	
		Minimum	1.00	
		Maximum	4.75	
		Range	3.75	
		Interquartile Range	1.75	
		Skewness	.423	.409
		Kurtosis	-.508	.798
	6-10	Mean	2.8088	.28402
		95% Confidence Interval for Mean	Lower Bound	2.2067
			Upper Bound	3.4109

	5% Trimmed Mean		2.8292		
	Median		3.0000		
	Variance		1.371		
	Std. Deviation		1.17104		
	Minimum		1.00		
	Maximum		4.25		
	Range		3.25		
	Interquartile Range		2.13		
	Skewness		-.400	.550	
	Kurtosis		-1.280	1.063	
	11-20	Mean		2.1786	.46839
		95% Confidence Interval for Mean	Lower Bound	1.0325	
			Upper Bound	3.3247	
5% Trimmed Mean		2.1290			
Median		2.0000			
Variance		1.536			
Std. Deviation		1.23924			
Minimum		1.00			
Maximum		4.25			
Range		3.25			
Interquartile Range		2.25			
Skewness		.744	.794		
Kurtosis		-.583	1.587		
21-30	Mean		3.2500	.62915	
	95% Confidence Interval for Mean	Lower Bound	.5430		
		Upper Bound	5.9570		
	5% Trimmed Mean		.		
	Median		3.7500		

		Variance	1.188	
		Std. Deviation	1.08972	
		Minimum	2.00	
		Maximum	4.00	
		Range	2.00	
		Interquartile Range	.	
		Skewness	-1.630	1.225
		Kurtosis	.	.
PA_Mean: Mean score of items 24, 26, 37, and 40	0-5	Mean	1.2879	.10386
		95% Confidence Interval for Mean	Lower Bound	1.0763
			Upper Bound	1.4994
		5% Trimmed Mean	1.1890	
		Median	1.0000	
		Variance	.356	
		Std. Deviation	.59661	
		Minimum	1.00	
		Maximum	3.75	
		Range	2.75	
		Interquartile Range	.25	
		Skewness	2.864	.409
		Kurtosis	9.168	.798
		Mean	1.3971	.15762
	6-10	95% Confidence Interval for Mean	Lower Bound	1.0629
			Upper Bound	1.7312
		5% Trimmed Mean	1.3301	
		Median	1.0000	
		Variance	.422	
		Std. Deviation	.64987	

11-20	Minimum		1.00
	Maximum		3.00
	Range		2.00
	Interquartile Range		.50
	Skewness		1.991 .550
	Kurtosis		3.207 1.063
	Mean		1.2143 .11481
	95% Confidence Interval for Mean	Lower Bound	.9334
		Upper Bound	1.4952
	5% Trimmed Mean		1.1964
	Median		1.0000
	Variance		.092
	Std. Deviation		.30375
	Minimum		1.00
	Maximum		1.75
	Range		.75
	Interquartile Range		.50
	Skewness		1.147 .794
	Kurtosis		-.057 1.587
21-30	Mean		1.7500 .75000
	95% Confidence Interval for Mean	Lower Bound	-1.4770
		Upper Bound	4.9770
	5% Trimmed Mean		.
	Median		1.0000
	Variance		1.688
	Std. Deviation		1.29904
	Minimum		1.00
	Maximum		3.25

		Range	2.25	
		Interquartile Range	.	
		Skewness	1.732	1.225
		Kurtosis	.	.
CN_Mean: Mean score of items 29, 35, 36, and 41	0-5	Mean	2.6061	.18656
		95% Confidence Interval for Mean	Lower Bound	2.2260
			Upper Bound	2.9861
		5% Trimmed Mean	2.5787	
		Median	2.7500	
		Variance	1.149	
		Std. Deviation	1.07171	
		Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
		Interquartile Range	1.63	
		Skewness	.244	.409
		Kurtosis	-.645	.798
	6-10	Mean	2.7941	.31741
		95% Confidence Interval for Mean	Lower Bound	2.1212
			Upper Bound	3.4670
		5% Trimmed Mean	2.7851	
		Median	2.7500	
		Variance	1.713	
		Std. Deviation	1.30873	
		Minimum	1.00	
		Maximum	4.75	
		Range	3.75	
		Interquartile Range	2.63	

11-20	Skewness		-.196	.550
	Kurtosis		-1.409	1.063
	Mean		2.2500	.55097
	95% Confidence Interval for Mean	Lower Bound	.9018	
		Upper Bound	3.5982	
	5% Trimmed Mean		2.1806	
	Median		2.0000	
	Variance		2.125	
	Std. Deviation		1.45774	
	Minimum		1.00	
	Maximum		4.75	
	Range		3.75	
	Interquartile Range		2.75	
	Skewness		1.059	.794
	Kurtosis		-.231	1.587
21-30	Mean		3.7500	.14434
	95% Confidence Interval for Mean	Lower Bound	3.1290	
		Upper Bound	4.3710	
	5% Trimmed Mean		.	
	Median		3.7500	
	Variance		.063	
	Std. Deviation		.25000	
	Minimum		3.50	
	Maximum		4.00	
	Range		.50	
	Interquartile Range		.	
	Skewness		.000	1.225
	Kurtosis		.	.
0-5	Mean		2.0530	.19179

IN_Mean: Mean score of items 32, 33, 34, and 39	95% Confidence Interval for Mean		Lower Bound	1.6624
			Upper Bound	2.4437
	5% Trimmed Mean			1.9588
	Median			1.7500
	Variance			1.214
	Std. Deviation			1.10177
	Minimum			1.00
	Maximum			5.00
	Range			4.00
	Interquartile Range			2.00
	Skewness			.894 .409
	Kurtosis			.244 .798
6-10	Mean		3.1765	.32424
	95% Confidence Interval for Mean		Lower Bound	2.4891
			Upper Bound	3.8638
	5% Trimmed Mean			3.1961
	Median			3.5000
	Variance			1.787
	Std. Deviation			1.33687
	Minimum			1.00
	Maximum			5.00
	Range			4.00
	Interquartile Range			2.50
	Skewness			-.254 .550
	Kurtosis			-1.267 1.063
11-20	Mean		2.5000	.36596
	95% Confidence Interval for Mean		Lower Bound	1.6045

		Upper Bound	3.3955	
		5% Trimmed Mean	2.5000	
		Median	2.5000	
		Variance	.938	
		Std. Deviation	.96825	
		Minimum	1.00	
		Maximum	4.00	
		Range	3.00	
		Interquartile Range	1.25	
		Skewness	.048	.794
		Kurtosis	.212	1.587
21-30	Mean		3.0000	1.01036
	95% Confidence Interval for Mean	Lower Bound	-1.3472	
		Upper Bound	7.3472	
	5% Trimmed Mean		.	
	Median		2.2500	
	Variance		3.063	
	Std. Deviation		1.75000	
	Minimum		1.75	
	Maximum		5.00	
	Range		3.25	
	Interquartile Range		.	
	Skewness		1.574	1.225
	Kurtosis		.	.
CT_Mean: Mean score of items 38, 42, 43, and 44	0-5	Mean		1.3939 .08359
		95% Confidence Interval for Mean	Lower Bound	1.2237
			Upper Bound	1.5642

			5% Trimmed Mean	1.3598	
			Median	1.0000	
			Variance	.231	
			Std. Deviation	.48019	
			Minimum	1.00	
			Maximum	2.50	
			Range	1.50	
			Interquartile Range	.88	
			Skewness	.736	.409
			Kurtosis	-.950	.798
	6-10		Mean	1.6324	.17431
		95% Confidence Interval for Mean	Lower Bound	1.2628	
			Upper Bound	2.0019	
			5% Trimmed Mean	1.5915	
			Median	1.5000	
			Variance	.517	
			Std. Deviation	.71871	
			Minimum	1.00	
			Maximum	3.00	
			Range	2.00	
			Interquartile Range	1.13	
			Skewness	.985	.550
			Kurtosis	-.338	1.063
	11-20		Mean	1.1786	.11845
		95% Confidence Interval for Mean	Lower Bound	.8887	
			Upper Bound	1.4684	
			5% Trimmed Mean	1.1567	
			Median	1.0000	

21-30	Variance		.098	
	Std. Deviation		.31339	
	Minimum		1.00	
	Maximum		1.75	
	Range		.75	
	Interquartile Range		.50	
	Skewness		1.450	.794
	Kurtosis		.521	1.587
	Mean		1.7500	.52042
	95% Confidence Interval for Mean	Lower Bound	-.4892	
		Upper Bound	3.9892	
	5% Trimmed Mean		.	
	Median		1.5000	
	Variance		.813	
	Std. Deviation		.90139	
	Minimum		1.00	
	Maximum		2.75	
	Range		1.75	
	Interquartile Range		.	
	Skewness		1.152	1.225
	Kurtosis		.	.

Tests of Normality

	Number of years at campus by category.	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
RP_Mean: Mean score of items 1, 2, 4, and 15	0-5	.125	33	.200*	.964	33	.328
	6-10	.226	17	.022	.884	17	.037
	11-20	.197	7	.200*	.914	7	.424
	21-30	.175	3	.	1.000	3	1.000
IA_Mean: Mean score of items 3, 7, 9, and 12	0-5	.127	33	.190	.956	33	.204
	6-10	.164	17	.200*	.938	17	.292
	11-20	.198	7	.200*	.923	7	.492
	21-30	.253	3	.	.964	3	.637
EX_Mean: Mean score of items 5, 6, 8, and 14	0-5	.239	33	<.001	.835	33	<.001
	6-10	.202	17	.064	.855	17	.013
	11-20	.444	7	<.001	.577	7	<.001
	21-30	.385	3	.	.750	3	.000
AP_Mean: Mean score of items 11, 17, 19, and 21	0-5	.133	33	.151	.908	33	.009
	6-10	.292	17	<.001	.850	17	.011
	11-20	.249	7	.200*	.771	7	.021
	21-30	.358	3	.	.812	3	.144
LG_Mean: Mean score of items 10, 13, 16, and 20	0-5	.131	33	.163	.966	33	.374
	6-10	.169	17	.200*	.935	17	.264
	11-20	.158	7	.200*	.901	7	.335
	21-30	.253	3	.	.964	3	.637
PR_Mean: Mean score of items 18, 22, 25, and 28	0-5	.290	33	<.001	.692	33	<.001
	6-10	.332	17	<.001	.671	17	<.001
	11-20	.292	7	.072	.719	7	.006
	21-30	.304	3	.	.907	3	.407
CB_Mean: Mean score of items 23, 27, 30, and 31	0-5	.125	33	.200*	.952	33	.153
	6-10	.153	17	.200*	.896	17	.058
	11-20	.202	7	.200*	.902	7	.345
	21-30	.343	3	.	.842	3	.220
PA_Mean: Mean score of items 24, 26, 37, and 40	0-5	.352	33	<.001	.558	33	<.001
	6-10	.271	17	.002	.651	17	<.001
	11-20	.331	7	.020	.773	7	.022
	21-30	.385	3	.	.750	3	.000

CN_Mean: Mean score of items 29, 35, 36, and 41	0-5	.108	33	.200*	.963	33	.323
	6-10	.179	17	.149	.902	17	.075
	11-20	.282	7	.097	.842	7	.103
	21-30	.175	3	.	1.000	3	1.000
IN_Mean: Mean score of items 32, 33, 34, and 39	0-5	.194	33	.003	.863	33	<.001
	6-10	.133	17	.200*	.927	17	.193
	11-20	.160	7	.200*	.985	7	.980
	21-30	.333	3	.	.862	3	.274
CT_Mean: Mean score of items 38, 42, 43, and 44	0-5	.309	33	<.001	.775	33	<.001
	6-10	.220	17	.028	.820	17	.004
	11-20	.430	7	<.001	.650	7	.001
	21-30	.276	3	.	.942	3	.537

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table C3*Research Question 2: One-way ANOVA test for all 11 INF. tactics-at campus/retention*

<i>ANOVA</i>					
PR Mean: Mean score of items 18, 22, 25, and 28					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.539	3	.846	1.749	.167
Within Groups	27.086	56	.484		
Total	29.625	59			

<i>ANOVA</i>					
EX Mean: Mean score of items 5, 6, 8, and 14					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.403	3	1.134	1.971	.129
Within Groups	32.234	56	.576		
Total	35.636	59			

<i>ANOVA</i>					
CT Mean: Mean score of items 38, 42, 43, and 44					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.454	3	.485	1.520	.219
Within Groups	17.858	56	.319		
Total	19.311	59			

<i>ANOVA</i>					
IN Mean: Mean score of items 32, 33, 34, and 39					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.071	3	5.024	3.553	.020
Within Groups	79.190	56	1.414		
Total	94.261	59			

<i>ANOVA</i>					
RP Mean: Mean score of items 1, 2, 4, and 15					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.216	3	1.072	.792	.503
Within Groups	75.780	56	1.353		
Total	78.996	59			

ANOVA

IA Mean: Mean score of items 3, 7, 9, and 12					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.996	3	.999	.855	.470
Within Groups	65.416	56	1.168		
Total	68.413	59			

ANOVA

CN Mean: Mean score of items 29, 35, 36, and 41					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.129	3	1.710	1.243	.303
Within Groups	77.033	56	1.376		
Total	82.163	59			

ANOVA

LG Mean: Mean score of items 10, 13, 16, and 20					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.652	3	4.551	4.886	.004
Within Groups	52.157	56	.931		
Total	65.808	59			

ANOVA

AP Mean: Mean score of items 11, 17, 19, and 21					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.083	3	2.028	1.663	.185
Within Groups	68.267	56	1.219		
Total	74.350	59			

ANOVA

CB Mean: Mean score of items 23, 27, 30, and 31					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.563	3	1.521	1.290	.287
Within Groups	66.046	56	1.179		
Total	70.608	59			

ANOVA

PA Mean: Mean score of items 24, 26, 37, and 40					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.757	3	.252	.640	.592
Within Groups	22.076	56	.394		
Total	22.833	59			

Welch---RQ2 CT

Robust Tests of Equality of Means

CT Mean: Mean score of items 38, 42, 43, and 44				
	Statistic ^a	df1	df2	Sig.
Welch	1.570	3	8.015	.271
Note. Asymptotically F distributed.				

POST HOC (TUKEY)---FOR IN & LG (2 Versions of each to pick from to use)

<i>Multiple Comparisons</i>						
Dependent Variable: LG Mean: Mean score of items 10, 13, 16, and 20						
Tukey HSD						
(I) Number of years at campus by category.	(J) Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-.46702	.28811	.375	-.12299	.2959
	11-20	.51407	.40159	.579	-.5493	1.5774
	21-30	-1.79545*	.58196	.016	-.33364	3.3364
6-10	0-5	.46702	.28811	.375	-.2959	1.2299
	11-20	.98109	.43340	.119	-.1665	2.1287
	21-30	-1.32843	.60435	.136	-.29287	.2718
11-20	0-5	-.51407	.40159	.579	-.15774	.5493
	6-10	-.98109	.43340	.119	-.21287	.1665
	21-30	-2.30952*	.66596	.005	-.40729	1.5461
21-30	0-5	1.79545*	.58196	.016	-.2545	3.3364
	6-10	1.32843	.60435	.136	-.2718	2.9287
	11-20	2.30952*	.66596	.005	-.5461	4.0729
*. The mean difference is significant at the 0.05 level.						

<i>Multiple Comparisons</i>						
Dependent Variable: LG Mean: Mean score of items 10, 13, 16, and 20						
Tukey HSD						
(I) Number of years at campus by category.	(J) Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-.46702	.28811	.375	-1.2299	.2959
	11-20	.51407	.40159	.579	-.5493	1.5774

6-10	21-30	-1.79545*	.58196	.016	-3.3364	-.2545
	0-5	.46702	.28811	.375	-.2959	1.2299
	11-20	.98109	.43340	.119	-.1665	2.1287
11-20	21-30	-1.32843	.60435	.136	-2.9287	.2718
	0-5	-.51407	.40159	.579	-1.5774	.5493
	6-10	-.98109	.43340	.119	-2.1287	.1665
21-30	21-30	-2.30952*	.66596	.005	-4.0729	-.5461
	0-5	1.79545*	.58196	.016	.2545	3.3364
	6-10	1.32843	.60435	.136	-.2718	2.9287
	11-20	2.30952*	.66596	.005	.5461	4.0729

*. The mean difference is significant at the 0.05 level.

<i>Multiple Comparisons</i>						
Dependent Variable: IN Mean: Mean score of items 32, 33, 34, and 39						
Tukey HSD						
(I) Number of years at campus by category.	(J) Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-1.12344*	.35501	.013	-2.0635	-.1834
	11-20	-.44697	.49484	.803	-1.7573	.8633
	21-30	-.94697	.71709	.554	-2.8458	.9518
6-10	0-5	1.12344*	.35501	.013	.1834	2.0635
	11-20	.67647	.53404	.588	-.7376	2.0905
	21-30	.17647	.74468	.995	-1.7954	2.1483
11-20	0-5	.44697	.49484	.803	-.8633	1.7573
	6-10	-.67647	.53404	.588	-2.0905	.7376
	21-30	-.50000	.82060	.929	-2.6729	1.6729
21-30	0-5	.94697	.71709	.554	-.9518	2.8458
	6-10	-.17647	.74468	.995	-2.1483	1.7954
	11-20	.50000	.82060	.929	-1.6729	2.6729

*. The mean difference is significant at the 0.05 level.

<i>Multiple Comparisons</i>						
Dependent Variable: IN_Mean: Mean score of items 32, 33, 34, and 39						
Tukey HSD						
(I) Number of years at campus by category.	(J) Number of years at campus by category.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-1.12344*	.35501	.013	-2.0635	-.1834
	11-20	-.44697	.49484	.803	-1.7573	.8633
	21-30	-.94697	.71709	.554	-2.8458	.9518
6-10	0-5	1.12344*	.35501	.013	.1834	2.0635
	11-20	.67647	.53404	.588	-.7376	2.0905
	21-30	.17647	.74468	.995	-1.7954	2.1483
11-20	0-5	.44697	.49484	.803	-.8633	1.7573
	6-10	-.67647	.53404	.588	-2.0905	.7376
	21-30	-.50000	.82060	.929	-2.6729	1.6729
21-30	0-5	.94697	.71709	.554	-.9518	2.8458
	6-10	-.17647	.74468	.995	-2.1483	1.7954
	11-20	.50000	.82060	.929	-1.6729	2.6729

*. The mean difference is significant at the 0.05 level.

Table C4*Research Question 3:-Shapiro Wilk and Skew and Kurtosis*

<i>Descriptives</i>				
Number of years teaching by category.		Statistic	Std. Error	
RP_Mean: Mean score of items 1, 2, 4, and 15	0-5	Mean	3.2917	.28024
		95% Confidence Interval for Mean	Lower Bound	2.7004
			Upper Bound	3.8829
		5% Trimmed Mean	3.3241	
		Median	3.1250	
		Variance	1.414	
		Std. Deviation	1.18895	
		Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
		Interquartile Range	1.88	
		Skewness	-.235	.536
		Kurtosis	-.966	1.038
	6-10	Mean	3.5893	.26417
		95% Confidence Interval for Mean	Lower Bound	3.0186
			Upper Bound	4.1600
		5% Trimmed Mean	3.6270	
		Median	3.8750	
		Variance	.977	
		Std. Deviation	.98843	
		Minimum	1.50	
		Maximum	5.00	

11-20	Range		3.50
	Interquartile Range		1.63
	Skewness		-.623 .597
	Kurtosis		-.107 1.154
	Mean		3.1333 .32629
	95% Confidence Interval for Mean	Lower Bound	2.4335
		Upper Bound	3.8332
	5% Trimmed Mean		3.1620
	Median		3.2500
	Variance		1.597
	Std. Deviation		1.26373
	Minimum		1.00
	Maximum		4.75
	Range		3.75
	Interquartile Range		2.25
	Skewness		-.270 .580
	Kurtosis		-1.260 1.121
21-30	Mean		3.3846 .34275
	95% Confidence Interval for Mean	Lower Bound	2.6378
		Upper Bound	4.1314
	5% Trimmed Mean		3.4274
	Median		3.5000
	Variance		1.527
	Std. Deviation		1.23582
	Minimum		1.00
	Maximum		5.00
	Range		4.00
	Interquartile Range		2.13

		Skewness	-.607	.616
		Kurtosis	-.647	1.191
IA_Mean: Mean score of items 3, 7, 9, and 12	0-5	Mean	3.2083	.27951
		95% Confidence Interval for Mean	Lower Bound	2.6186
			Upper Bound	3.7980
		5% Trimmed Mean	3.2176	
		Median	3.5000	
		Variance	1.406	
		Std. Deviation	1.18585	
		Minimum	1.25	
		Maximum	5.00	
		Range	3.75	
		Interquartile Range	2.31	
		Skewness	-.095	.536
		Kurtosis	-1.222	1.038
	6-10	Mean	3.6250	.25239
		95% Confidence Interval for Mean	Lower Bound	3.0797
			Upper Bound	4.1703
		5% Trimmed Mean	3.6389	
		Median	3.3750	
		Variance	.892	
		Std. Deviation	.94437	
		Minimum	2.00	
		Maximum	5.00	
		Range	3.00	
		Interquartile Range	1.63	
		Skewness	.065	.597
		Kurtosis	-.956	1.154
	11-20	Mean	2.7833	.22209

		95% Confidence Interval for Mean	Lower Bound	2.3070		
			Upper Bound	3.2597		
		5% Trimmed Mean		2.8287		
		Median		3.0000		
		Variance		.740		
		Std. Deviation		.86016		
		Minimum		1.00		
		Maximum		3.75		
		Range		2.75		
		Interquartile Range		1.50		
		Skewness		-.567	.580	
		Kurtosis		-.675	1.121	
		21-30	Mean		3.0962	.33318
			95% Confidence Interval for Mean	Lower Bound	2.3702	
Upper Bound	3.8221					
5% Trimmed Mean			3.1207			
Median			3.2500			
Variance			1.443			
Std. Deviation			1.20129			
Minimum			1.00			
Maximum			4.75			
Range			3.75			
Interquartile Range			2.13			
Skewness			-.376	.616		
Kurtosis			-1.032	1.191		
EX_Mean: Mean score of items 5, 6, 8, and 14	0-5		Mean	1.5833	.16420	
		95% Confidence Interval for Mean	Lower Bound	1.2369		

6-10	Mean	Upper Bound	1.9298	
		5% Trimmed Mean	1.5370	
		Median	1.2500	
		Variance	.485	
		Std. Deviation	.69663	
		Minimum	1.00	
		Maximum	3.00	
		Range	2.00	
		Interquartile Range	1.06	
		Skewness	.769	.536
		Kurtosis	-.795	1.038
		Mean	2.0179	.24369
		95% Confidence Interval for Mean	Lower Bound	1.4914
			Upper Bound	2.5443
		5% Trimmed Mean	1.9782	
11-20	Mean	Median	2.0000	
		Variance	.831	
		Std. Deviation	.91180	
		Minimum	1.00	
		Maximum	3.75	
		Range	2.75	
		Interquartile Range	1.44	
		Skewness	.644	.597
		Kurtosis	-.524	1.154
		Mean	1.4500	.14058
		95% Confidence Interval for Mean	Lower Bound	1.1485
			Upper Bound	1.7515

		5% Trimmed Mean	1.4028	
		Median	1.2500	
		Variance	.296	
		Std. Deviation	.54445	
		Minimum	1.00	
		Maximum	2.75	
		Range	1.75	
		Interquartile Range	1.00	
		Skewness	1.300	.580
		Kurtosis	.810	1.121
21-30		Mean	1.7885	.24975
	95% Confidence Interval for Mean	Lower Bound	1.2443	
		Upper Bound	2.3326	
		5% Trimmed Mean	1.7511	
		Median	1.5000	
		Variance	.811	
		Std. Deviation	.90050	
		Minimum	1.00	
		Maximum	3.25	
		Range	2.25	
AP_Mean: Mean score of items 11, 17, 19, and 21	0-5	Interquartile Range	1.63	
		Skewness	.953	.616
		Kurtosis	-.694	1.191
		Mean	2.0694	.22760
		95% Confidence Interval for Mean	Lower Bound	1.5893
			Upper Bound	2.5496
		5% Trimmed Mean	1.9660	
		Median	2.1250	

6-10	Variance		.932	
	Std. Deviation		.96561	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.25	
	Skewness		1.568	.536
	Kurtosis		4.085	1.038
	Mean		2.7857	.33135
	95% Confidence Interval for Mean	Lower Bound	2.0699	
		Upper Bound	3.5015	
	5% Trimmed Mean		2.7897	
	Median		2.6250	
	Variance		1.537	
	Std. Deviation		1.23979	
11-20	Minimum		1.00	
	Maximum		4.50	
	Range		3.50	
	Interquartile Range		2.38	
	Skewness		.121	.597
	Kurtosis		-1.506	1.154
	Mean		2.0667	.29018
	95% Confidence Interval for Mean	Lower Bound	1.4443	
		Upper Bound	2.6890	
	5% Trimmed Mean		1.9630	
	Median		1.7500	
	Variance		1.263	
	Std. Deviation		1.12388	

		Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
		Interquartile Range	1.50	
		Skewness	1.409	.580
		Kurtosis	2.034	1.121
21-30		Mean	1.9038	.30295
	95% Confidence Interval for Mean	Lower Bound	1.2438	
		Upper Bound	2.5639	
		5% Trimmed Mean	1.8376	
		Median	1.5000	
		Variance	1.193	
		Std. Deviation	1.09230	
		Minimum	1.00	
		Maximum	4.00	
		Range	3.00	
LG_Mean: Mean score of items 10, 13, 16, and 20	0-5	Interquartile Range	1.63	
		Skewness	1.051	.616
		Kurtosis	-.271	1.191
		Mean	2.6111	.21976
		95% Confidence Interval for Mean	Lower Bound	2.1475
			Upper Bound	3.0748
		5% Trimmed Mean	2.5679	
		Median	2.5000	
		Variance	.869	
		Std. Deviation	.93235	
		Minimum	1.00	
		Maximum	5.00	

6-10	Range		4.00	
	Interquartile Range		.94	
	Skewness		.624	.536
	Kurtosis		1.520	1.038
	Mean		3.1786	.28399
	95% Confidence Interval for Mean	Lower Bound	2.5650	
		Upper Bound	3.7921	
	5% Trimmed Mean		3.1706	
	Median		3.3750	
	Variance		1.129	
	Std. Deviation		1.06260	
	Minimum		1.75	
	Maximum		4.75	
	Range		3.00	
	Interquartile Range		2.06	
	Skewness		-.078	.597
	Kurtosis		-1.673	1.154
11-20	Mean		2.6167	.26822
	95% Confidence Interval for Mean	Lower Bound	2.0414	
		Upper Bound	3.1920	
	5% Trimmed Mean		2.6157	
	Median		2.7500	
	Variance		1.079	
	Std. Deviation		1.03883	
	Minimum		1.00	
	Maximum		4.25	
	Range		3.25	
	Interquartile Range		2.25	

PR_Mean: Mean score of items 18, 22, 25, and 28	21-30	Skewness		.024	.580
		Kurtosis		-1.143	1.121
		Mean		2.7885	.34068
		95% Confidence Interval for Mean	Lower Bound	2.0462	
			Upper Bound	3.5307	
		5% Trimmed Mean		2.7788	
		Median		2.2500	
		Variance		1.509	
		Std. Deviation		1.22834	
		Minimum		1.00	
		Maximum		4.75	
		Range		3.75	
		Interquartile Range		1.75	
		Skewness		.105	.616
		Kurtosis		-1.017	1.191
	0-5	Mean		1.4028	.14871
		95% Confidence Interval for Mean	Lower Bound	1.0890	
			Upper Bound	1.7165	
		5% Trimmed Mean		1.3086	
		Median		1.2500	
		Variance		.398	
		Std. Deviation		.63094	
		Minimum		1.00	
		Maximum		3.50	
		Range		2.50	
		Interquartile Range		.56	
		Skewness		2.472	.536
		Kurtosis		7.021	1.038
	6-10	Mean		1.4464	.15763

	95% Confidence Interval for Mean	Lower Bound	1.1059	
		Upper Bound	1.7870	
	5% Trimmed Mean		1.3988	
	Median		1.2500	
	Variance		.348	
	Std. Deviation		.58981	
	Minimum		1.00	
	Maximum		2.75	
	Range		1.75	
	Interquartile Range		.56	
	Skewness		1.775	.597
	Kurtosis		2.178	1.154
	Mean		1.5500	.19242
	95% Confidence Interval for Mean	Lower Bound	1.1373	
		Upper Bound	1.9627	
11-20	5% Trimmed Mean		1.4722	
	Median		1.2500	
	Variance		.555	
	Std. Deviation		.74522	
	Minimum		1.00	
	Maximum		3.50	
	Range		2.50	
	Interquartile Range		.75	
	Skewness		1.905	.580
	Kurtosis		3.130	1.121
	Mean		1.6346	.25416
	95% Confidence Interval for Mean	Lower Bound	1.0809	
21-30				

		Upper Bound	2.1884	
		5% Trimmed Mean	1.5662	
		Median	1.2500	
		Variance	.840	
		Std. Deviation	.91638	
		Minimum	1.00	
		Maximum	3.50	
		Range	2.50	
		Interquartile Range	1.25	
		Skewness	1.337	.616
		Kurtosis	.273	1.191
CB_Mean: Mean score of items 23, 27, 30, and 31	0-5	Mean	2.2639	.24040
		95% Confidence Interval for Mean	Lower Bound	1.7567
			Upper Bound	2.7711
		5% Trimmed Mean	2.2238	
		Median	2.3750	
		Variance	1.040	
		Std. Deviation	1.01992	
		Minimum	1.00	
	6-10	Maximum	4.25	
		Range	3.25	
		Interquartile Range	2.06	
		Skewness	.160	.536
		Kurtosis	-1.038	1.038
		Mean	3.0714	.28156
		95% Confidence Interval for Mean	Lower Bound	2.4631
			Upper Bound	3.6797

	5% Trimmed Mean		3.0794		
	Median		3.3750		
	Variance		1.110		
	Std. Deviation		1.05351		
	Minimum		1.25		
	Maximum		4.75		
	Range		3.50		
	Interquartile Range		1.63		
	Skewness		-.312	.597	
	Kurtosis		-.983	1.154	
	11-20	Mean		2.2667	.27867
		95% Confidence Interval for Mean	Lower Bound	1.6690	
			Upper Bound	2.8644	
5% Trimmed Mean		2.2269			
Median		2.0000			
Variance		1.165			
Std. Deviation		1.07930			
Minimum		1.00			
Maximum		4.25			
Range		3.25			
Interquartile Range		1.75			
Skewness		.654	.580		
Kurtosis		-.512	1.121		
21-30	Mean		2.5577	.31794	
	95% Confidence Interval for Mean	Lower Bound	1.8650		
		Upper Bound	3.2504		
	5% Trimmed Mean		2.5502		
	Median		2.5000		

		Variance	1.314	
		Std. Deviation	1.14634	
		Minimum	1.00	
		Maximum	4.25	
		Range	3.25	
		Interquartile Range	2.13	
		Skewness	.008	.616
		Kurtosis	-1.458	1.191
PA_Mean: Mean score of items 24, 26, 37, and 40	0-5	Mean	1.2222	.10674
		95% Confidence Interval for Mean	Lower Bound	.9970
			Upper Bound	1.4474
		5% Trimmed Mean	1.1497	
		Median	1.0000	
		Variance	.205	
		Std. Deviation	.45284	
		Minimum	1.00	
		Maximum	2.75	
		Range	1.75	
		Interquartile Range	.25	
		Skewness	2.657	.536
		Kurtosis	7.615	1.038
		Mean	1.5000	.23293
		95% Confidence Interval for Mean	Lower Bound	.9968
			Upper Bound	2.0032
		5% Trimmed Mean	1.4028	
		Median	1.0000	
		Variance	.760	
		Std. Deviation	.87156	

11-20	Minimum		1.00	
	Maximum		3.75	
	Range		2.75	
	Interquartile Range		.81	
	Skewness		1.868	.597
	Kurtosis		2.802	1.154
	Mean		1.3500	.13758
	95% Confidence Interval for Mean	Lower Bound	1.0549	
		Upper Bound	1.6451	
	5% Trimmed Mean		1.2778	
	Median		1.2500	
	Variance		.284	
	Std. Deviation		.53285	
	Minimum		1.00	
	Maximum		3.00	
	Range		2.00	
	Interquartile Range		.50	
	Skewness		2.355	.580
	Kurtosis		6.549	1.121
	Mean		1.2885	.17643
21-30	95% Confidence Interval for Mean	Lower Bound	.9041	
		Upper Bound	1.6729	
	5% Trimmed Mean		1.1955	
	Median		1.0000	
	Variance		.405	
	Std. Deviation		.63612	
	Minimum		1.00	
	Maximum		3.25	

CN_Mean: Mean score of items 29, 35, 36, and 41	0-5	Range		2.25	
		Interquartile Range		.38	
		Skewness		2.846	.616
		Kurtosis		8.631	1.191
		Mean		2.5972	.27202
		95% Confidence Interval for Mean	Lower Bound	2.0233	
			Upper Bound	3.1711	
		5% Trimmed Mean		2.5941	
		Median		2.6250	
		Variance		1.332	
		Std. Deviation		1.15408	
		Minimum		1.00	
		Maximum		4.25	
		Range		3.25	
		Interquartile Range		2.19	
		Skewness		.047	.536
		Kurtosis		-1.311	1.038
	6-10	Mean		2.9286	.23503
		95% Confidence Interval for Mean	Lower Bound	2.4208	
			Upper Bound	3.4363	
		5% Trimmed Mean		2.9206	
		Median		3.0000	
		Variance		.773	
		Std. Deviation		.87940	
		Minimum		1.50	
		Maximum		4.50	
		Range		3.00	
		Interquartile Range		1.56	

11-20	Skewness		.066	.597
	Kurtosis		-.685	1.154
	Mean		2.4333	.31573
	95% Confidence Interval for Mean	Lower Bound	1.7562	
		Upper Bound	3.1105	
	5% Trimmed Mean		2.3704	
	Median		2.5000	
	Variance		1.495	
	Std. Deviation		1.22280	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		2.00	
	Skewness		.566	.580
	Kurtosis		-.448	1.121
21-30	Mean		2.7885	.41201
	95% Confidence Interval for Mean	Lower Bound	1.8908	
		Upper Bound	3.6861	
	5% Trimmed Mean		2.7788	
	Median		3.5000	
	Variance		2.207	
	Std. Deviation		1.48551	
	Minimum		1.00	
	Maximum		4.75	
	Range		3.75	
	Interquartile Range		2.88	
	Skewness		-.119	.616
	Kurtosis		-1.767	1.191
0-5	Mean		1.9861	.26925

IN_Mean: Mean score of items 32, 33, 34, and 39	95% Confidence Interval for Mean	Lower Bound	1.4180	
		Upper Bound	2.5542	
	5% Trimmed Mean		1.8735	
	Median		1.6250	
	Variance		1.305	
	Std. Deviation		1.14234	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.81	
	Skewness		1.172	.536
	Kurtosis		1.178	1.038
6-10	Mean		2.6964	.34087
	95% Confidence Interval for Mean	Lower Bound	1.9600	
		Upper Bound	3.4328	
	5% Trimmed Mean		2.6766	
	Median		2.3750	
	Variance		1.627	
	Std. Deviation		1.27543	
	Minimum		1.00	
	Maximum		4.75	
	Range		3.75	
	Interquartile Range		2.00	
	Skewness		.368	.597
	Kurtosis		-1.122	1.154
11-20	Mean		2.6167	.32902
	95% Confidence Interval for Mean	Lower Bound	1.9110	
		Upper Bound		

		Upper Bound	3.3223	
		5% Trimmed Mean	2.5880	
		Median	2.7500	
		Variance	1.624	
		Std. Deviation	1.27429	
		Minimum	1.00	
		Maximum	4.75	
		Range	3.75	
		Interquartile Range	2.50	
		Skewness	.108	.580
		Kurtosis	-1.044	1.121
21-30		Mean	2.7308	.37603
	95% Confidence Interval for Mean	Lower Bound	1.9115	
		Upper Bound	3.5501	
		5% Trimmed Mean	2.7009	
		Median	2.2500	
		Variance	1.838	
		Std. Deviation	1.35578	
		Minimum	1.00	
		Maximum	5.00	
		Range	4.00	
CT_Mean: Mean score of items 38, 42, 43, and 44	0-5	Interquartile Range	2.00	
		Skewness	.554	.616
		Kurtosis	-.803	1.191
		Mean	1.4306	.11924
		95% Confidence Interval for Mean	Lower Bound	1.1790
			Upper Bound	1.6821

6-10	5% Trimmed Mean		1.3951	
	Median		1.1250	
	Variance		.256	
	Std. Deviation		.50589	
	Minimum		1.00	
	Maximum		2.50	
	Range		1.50	
	Interquartile Range		1.00	
	Skewness		.666	.536
	Kurtosis		-.976	1.038
	Mean		1.4821	.15385
	95% Confidence Interval for Mean	Lower Bound	1.1498	
		Upper Bound	1.8145	
	5% Trimmed Mean		1.4385	
11-20	Median		1.2500	
	Variance		.331	
	Std. Deviation		.57566	
	Minimum		1.00	
	Maximum		2.75	
	Range		1.75	
	Interquartile Range		1.00	
	Skewness		.983	.597
	Kurtosis		-.040	1.154
	Mean		1.5167	.18814
	95% Confidence Interval for Mean	Lower Bound	1.1131	
		Upper Bound	1.9202	
	5% Trimmed Mean		1.4630	
	Median		1.0000	

21-30	Variance		.531	
	Std. Deviation		.72866	
	Minimum		1.00	
	Maximum		3.00	
	Range		2.00	
	Interquartile Range		1.00	
	Skewness		1.262	.580
	Kurtosis		.364	1.121
	Mean		1.3846	.14044
	95% Confidence Interval for Mean	Lower Bound	1.0786	
		Upper Bound	1.6906	
	5% Trimmed Mean		1.3301	
	Median		1.2500	
	Variance		.256	
	Std. Deviation		.50637	
	Minimum		1.00	
	Maximum		2.75	
	Range		1.75	
	Interquartile Range		.63	
	Skewness		1.747	.616
	Kurtosis		3.713	1.191

Tests of Normality

	Number of years teaching by category.	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
RP_Mean: Mean score of items 1, 2, 4, and 15	0-5	.169	18	.189	.944	18	.344
	6-10	.161	14	.200*	.954	14	.632
	11-20	.158	15	.200*	.925	15	.232
	21-30	.152	13	.200*	.934	13	.384

IA_Mean: Mean score of items 3, 7, 9, and 12	0-5	.153	18	.200*	.936	18	.249
	6-10	.154	14	.200*	.951	14	.576
	11-20	.173	15	.200*	.913	15	.149
	21-30	.166	13	.200*	.952	13	.623
EX_Mean: Mean score of items 5, 6, 8, and 14	0-5	.299	18	<.001	.805	18	.002
	6-10	.157	14	.200*	.908	14	.148
	11-20	.310	15	<.001	.798	15	.003
	21-30	.241	13	.038	.784	13	.004
AP_Mean: Mean score of items 11, 17, 19, and 21	0-5	.161	18	.200*	.851	18	.009
	6-10	.167	14	.200*	.920	14	.220
	11-20	.190	15	.149	.861	15	.025
	21-30	.234	13	.050	.801	13	.007
LG_Mean: Mean score of items 10, 13, 16, and 20	0-5	.175	18	.151	.933	18	.216
	6-10	.167	14	.200*	.899	14	.109
	11-20	.129	15	.200*	.951	15	.543
	21-30	.208	13	.128	.938	13	.430
PR_Mean: Mean score of items 18, 22, 25, and 28	0-5	.262	18	.002	.679	18	<.001
	6-10	.345	14	<.001	.696	14	<.001
	11-20	.261	15	.007	.727	15	<.001
	21-30	.278	13	.007	.727	13	.001
CB_Mean: Mean score of items 23, 27, 30, and 31	0-5	.173	18	.161	.918	18	.118
	6-10	.169	14	.200*	.937	14	.377
	11-20	.161	15	.200*	.911	15	.142
	21-30	.148	13	.200*	.931	13	.354
PA_Mean: Mean score of items 24, 26, 37, and 40	0-5	.355	18	<.001	.571	18	<.001
	6-10	.360	14	<.001	.659	14	<.001
	11-20	.256	15	.009	.693	15	<.001
	21-30	.367	13	<.001	.539	13	<.001
CN_Mean: Mean score of items 29, 35, 36, and 41	0-5	.119	18	.200*	.917	18	.114
	6-10	.111	14	.200*	.977	14	.952
	11-20	.167	15	.200*	.928	15	.259
	21-30	.222	13	.078	.847	13	.026
IN_Mean: Mean score of items 32, 33, 34, and 39	0-5	.195	18	.069	.836	18	.005
	6-10	.137	14	.200*	.918	14	.203
	11-20	.164	15	.200*	.925	15	.228
	21-30	.183	13	.200*	.910	13	.182
	0-5	.303	18	<.001	.792	18	.001
	6-10	.228	14	.047	.829	14	.011

CT_Mean: Mean	11-20	.294	15	.001	.741	15	<.001
score of items 38, 42, 43, and 44	21-30	.238	13	.043	.766	13	.003

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table C5*Research Question 3:-ANOVA-Total Yrs. Teaching*

<i>ANOVA</i>					
PR_Mean: Mean score of items 18, 22, 25, and 28					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.483	3	.161	.310	.818
Within Groups	29.142	56	.520		
Total	29.625	59			

<i>ANOVA</i>					
EX_Mean: Mean score of items 5, 6, 8, and 14					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.698	3	.899	1.529	.217
Within Groups	32.939	56	.588		
Total	35.636	59			

<i>ANOVA</i>					
CT_Mean: Mean score of items 38, 42, 43, and 44					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.142	3	.047	.139	.936
Within Groups	19.169	56	.342		
Total	19.311	59			

<i>ANOVA</i>					
IN_Mean: Mean score of items 32, 33, 34, and 39					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.139	3	2.046	1.300	.283
Within Groups	88.122	56	1.574		
Total	94.261	59			

ANOVA

RP_Mean: Mean score of items 1, 2, 4, and 15					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.578	3	.526	.381	.767
Within Groups	77.417	56	1.382		
Total	78.996	59			

ANOVA

IA_Mean: Mean score of items 3, 7, 9, and 12					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.237	3	1.746	1.547	.212
Within Groups	63.176	56	1.128		
Total	68.413	59			

ANOVA

CN_Mean: Mean score of items 29, 35, 36, and 41					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.052	3	.684	.478	.699
Within Groups	80.110	56	1.431		
Total	82.163	59			

ANOVA

LG_Mean: Mean score of items 10, 13, 16, and 20					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.138	3	1.046	.935	.430
Within Groups	62.670	56	1.119		
Total	65.808	59			

ANOVA

AP_Mean: Mean score of items 11, 17, 19, and 21					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.517	3	2.172	1.793	.159
Within Groups	67.833	56	1.211		
Total	74.350	59			

ANOVA

CB_Mean: Mean score of items 23, 27, 30, and 31					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.418	3	2.139	1.866	.146
Within Groups	64.190	56	1.146		
Total	70.608	59			

ANOVA

PA_Mean: Mean score of items 24, 26, 37, and 40					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.641	3	.214	.540	.657
Within Groups	22.192	56	.396		
Total	22.833	59			

Welch---RQ3

<i>Robust Tests of Equality of Means</i>				
CN_Mean: Mean score of items 29, 35, 36, and 41				
	Statistic ^a	df1	df2	Sig.
Welch	.587	3	29.753	.628
Note. Asymptotically F distributed.				

Table C6*AP-T-Test*

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
AP_Mean:	Equal	4.334	.042	.444	58	.329	.659	.15712	.35420	-.55188	.86612
Mean score of	variances										
items 11, 17,	assumed										
19, and 21	Equal			.369	15.635	.358	.717	.15712	.42547	-.74655	1.06078
	variances										
	not assumed										

Table C7

CB-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for		t-test for Equality of Means							
		Equality of								95% Confidence	
		Variances								Interval of the	
						Significance					
						One-	Two-				
						Sided	Sided	Mean	Std. Error		
		F	Sig.	t	df	p	p	Difference	Difference	Lower	Upper
CB_Mean: Mean	Equal variances	1.955	.167	.489	58	.313	.627	.16858	.34505	-.52211	.85926
score of items	assumed										
23, 27, 30, and	Equal variances			.450	17.330	.329	.658	.16858	.37422	-.61982	.95697
31	not assumed										

Table C8*CN-T-Test*

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
CN_Mean: Mean score of items 29, 35, 36, and 41	Equal variances assumed	F	Sig.	t	df	.026	.053	.71440	.36098	-.00819	1.43699
	Equal variances not assumed			2.251	23.546	.017	.034	.71440	.31739	.05867	1.37014

Table C9*CT-T-Test*

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
										95% Confidence Interval of the Difference	
						Significance					
						One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
CT_Mean:	Equal	.785	.379	.766	58	.223	.447	.13789	.17991	-.22224	.49802
Mean score of items 38, 42, 43, and 44	variances assumed										
	Equal			.651	15.914	.262	.525	.13789	.21197	-.31166	.58743
	variances not assumed										

Table C10*EX-T-Test*

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
EX_Mean:	Equal	.821	.369	-.182	58	.428	.857	-.04460	.24556	-.53615	.44695
Mean score of items 5, 6, 8, and 14	variances assumed										
	Equal			-.163	16.831	.436	.872	-.04460	.27351	-.62209	.53290
	variances not assumed										

Table C11

IA-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One-Sided	Two-Sided	Mean Difference	Std. Error Difference	Lower	Upper
		F	Sig.	t	df	p	p				
IA_Mean: Mean score of items 3, 7, 9, and 12	Equal variances assumed	1.534	.221	.079	58	.469	.937	.02700	.34032	-.65422	.70823
	Equal variances not assumed			.071	16.658	.472	.945	.02700	.38280	-.78189	.83590

Table C12

IN-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One-Sided	Two-Sided	Mean Difference	Std. Error Difference	Lower	Upper
		F	Sig.	t	df	p	p				
IN_Mean: Mean score of items 32, 33, 34, and 39	Equal variances assumed	.003	.959	.523	58	.302	.603	.20827	.39855	-.58953	1.00606
	Equal variances not assumed			.520	19.061	.304	.609	.20827	.40029	-.62937	1.04590

Table C13

LG-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
LG_Mean: Mean score of items 10, 13, 16, and 20	Equal variances assumed	6.403	.014	-.314	58	.377	.755	-.10475	.33351	-.77234	.56285
	Equal variances not assumed			-.251	15.092	.403	.805	-.10475	.41753	-.99422	.78473

Table C14

PA-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
										95% Confidence Interval of the Difference	
						Significance					
						One-Sided	Two-Sided	Mean Difference	Std. Error Difference	Lower	Upper
		F	Sig.	t	df	p	p				
PA_Mean: Mean score of items 24, 26, 37, and 40	Equal variances assumed	1.131	.292	-.083	58	.467	.934	-.01637	.19661	-.40992	.37719
	Equal variances not assumed			-.069	15.661	.473	.946	-.01637	.23573	-.51697	.48424

Table C15

PR-T-Test

<i>Independent Samples Test</i>											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
						Significance				95% Confidence Interval of the Difference	
						One- Sided p	Two- Sided p	Mean Difference	Std. Error Difference	Lower	Upper
PR_Mean: Mean score of items 18, 22, 25, and 28	Equal variances assumed	.118	.732	.110	58	.457	.913	.02455	.22394	-.42371	.47281
	Equal variances not assumed			.104	17.925	.459	.918	.02455	.23596	-.47133	.52043

Table C16

RP-T-Test

Independent Samples Test											
		Levene's Test for Equality of Variances				t-test for Equality of Means					
										95% Confidence Interval	
										of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
RP_Mean: Equal		.153	.697	.455	58	.325	.651	.16612	.36506	-.56463	.89688
Mean variances	assumed										
score of											
items 1, 2,	Equal			.439	18.279	.333	.666	.16612	.37862	-.62846	.96070
4, and 15	variances										
	not										
	assumed										