Teacher Self-Efficacy and Years of Experience: Their Relation to Teacher Commitment and Intention to Leave

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Submitted to the graduate degree program in Educational Leadership and Policy Studies and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Doctor of Education.

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Date Approved: December 8, 2020

Abstract

The teacher turnover remains to be a pressing problem in the United States. Some teachers move between schools, while others leave the profession altogether. This creates loss, costs, and disruptions in our schools. This loss is even magnified in urban schools, under-performing schools, and schools with more economically disadvantaged students. It is then critical to understand and address teacher turnover in combatting its effects on student learning, in strengthening teacher commitment and teacher efficacies and, hopefully, in stemming teacher shortages in the United States.

Teachers' self-efficacy beliefs and commitment have come to be recognized as important teacher variables linked to attrition. However, there is still lack of knowledge on the variances of self-efficacy that occur in the specific dimensions of instructional strategies, classroom management, and student engagement when teacher characteristics are considered. This study examined how specific areas of teacher self-efficacy, commitment, and intention to leave indices vary based on years of experience, gender, race/ethnicity, and school setting. Furthermore, this study sought to understand how each of these indices relate to each other, more specifically how they influence teachers' intention to leave or quit.

Using the data collected from 201 completed teacher surveys, this study found that female teachers have higher self-efficacy in student engagement compared to male teachers. Non-white teachers also feel more confident in their ability to engage their students than white teachers. It was determined that teachers with 6 to 10 years of teaching experience are more efficacious in instructional strategies and classroom management but have higher intention to quit compared to teachers who have only been teaching for at most five years. Furthermore, while it was found that self-efficacy, commitment, together with gender, race, years of

experience and school setting explain a significant amount of variance in a teacher's intention to quit, only teacher commitment was found as a significant predictor. The influence of commitment on intention to quit was the strongest for teachers in their first five years of teaching and the weakest for teachers with at least 20 years of teaching experience. Teacher self-efficacy in student engagement was found to be a significant predictor of commitment. Lastly, teaching experience appeared to have a significant positive effect on intention to quit but only for teachers who have been teaching for 6 to 15 years. As a whole, the results of this study contribute to an important story about relationships that exist between teacher self-efficacy, commitment, years of experience, and intention to quit.

Acknowledgements

I am humbled and overwhelmed with gratitude as I think of the people who have made this journey possible. First, I would like to lift up this work to our Amazing God. His Grace has carried me through and brought me here.

I would like to thank my mentors and professors for inspiring me to continuously improve my professional capacity. I am extremely grateful to my committee chair, Dr. Thomas DeLuca. His expertise, guidance, and support have been invaluable throughout this process. I would also like to thank Dr. Deborah Perbeck for sharing her passion on effective educational leadership and for always encouraging me. I am also thankful to Dr. Argun Saatcioglu for introducing me to organizational sociology and for teaching me how to analyze data and use Stata. It definitely made a significant difference in this journey!

For their patience and encouragement, I owe a debt of gratitude to the fine teachers from whom I have been privileged to collaborate with. I specifically want to thank Mrs. Colleen Dudley, for being a great mentor and for giving me various opportunities to grow.

To my amazing cohort, I am blessed to have spent these years with you. Your care and support went beyond our coursework. Thank you for being there for me.

Moreover, this would not have been possible without the support of my family and friends. Thank you for praying for me.

Most importantly, I would like to express my deepest gratitude to my husband, David. Thank you for your unwavering love and support. I appreciate all the sacrifices you have made to help me in this journey. Thank you for believing in me. To my daughter, Sophia, thank you for being a great source of joy and inspiration. I love you both so much!

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CHAPTER I
Introduction

The rate of teacher turnover continues to be a pressing problem. According to the updated report of the National Center for Education Statistics (NCES), based on the data between 2011-2012 and 2012-2013 school year, the teacher turnover rate is 16% (U.S. Department of Education, 2016). About half of this 16% moved to another school while the other half left the profession. Fifty-nine percent of the teachers who moved to other schools, moved from one public school to another public school in the same school district, while 38% moved to a different public-school district, and 3% moved to a private school. In Kansas, the turnover rate was about 12% in 2016 according to the final report of the Blue-Ribbon Task Force on Teacher Vacancies and Supply (Kansas State Department of Education, 2016).

Given these trends, the issue of teacher turnover is worthy of further study based on the high cost related to teacher recruitment, hiring, and induction. Teacher turnover has been associated with an annual 3-10 % loss of student learning and an estimated cost of $1-2 billion dollars that states spend on teacher attrition and turnover (Alliance for Excellent Education, 2014; Ingersoll & Perda, 2010; Ronfeldt, Loeb, & Wyckoff, 2013; Shockley, Guglielmino, & Watlington, 2006; Watlington, Shockley, Guglielmino, & Felsher, 2010). The estimated monetary cost that districts spend for each teacher who leaves the district range from $10,000 to $17,000 (Barnes, Crowe, & Schaefer, 2007; DeFeo, Tran, Hirshberg, Cope, & Cravez, 2017). In understanding the roots and what can be done to address this issue, teacher self-efficacy was among the focal points of research (Skaalvik & Skaalvik 2007; Tschannen-Moran & Hoy, 2001). For this study, I define *teacher self-efficacy* as a judgment of one's own capabilities to bring about desired outcomes of student engagement and learning (Tschannen-Moran & Hoy, 2001). Teacher self-efficacy has been shown to be related to various teacher outcomes such as

persistence, satisfaction, burnout, and instructional practices, as well as student outcomes such as achievement, motivation, and self-efficacy beliefs (Burley, Hall, Villeme, & Brockmeier, 1991; Caprara, Barbaranelli, Steca, & Malone, 2006; Chan, Lau, Nie, Lim, & Hogan, 2008; Fives, Hamman, & Olivarez, 2007; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik 2007; Tschannen-Moran & Hoy, 2001).

Teachers' self-efficacy beliefs and commitment have come to be recognized as an important topic of educational research (Chan et al., 2008; Coladarci, 1992; Ebmeier, 2003). However, there is still lack of knowledge on the variances of self-efficacy that occur in the specific dimensions of instructional strategies, classroom management, and student engagement when teacher characteristics (e.g., experience, gender, race/ethnicity, and school setting) are considered. To extend the literature exploring teacher self-efficacy, this study examined how specific areas of teacher self-efficacy, commitment, and intention to leave indices vary based on years of experience, gender, race/ethnicity, and school setting. Furthermore, this study sought to understand how each of these indices relate to each other.

Research Context and Questions

In these days of highly focused accountability, teachers' sense of efficacy is an idea that neither researchers nor practitioners can afford to ignore. Johnson and Birkeland (2003) note that efficacy was of central importance in all the new teacher's explanations as to why they stay, move, or leave public schools and the education field altogether within their first three or five years of teaching.

Teacher retention is a problem everywhere, but it a serious problem in urban schools, under-performing schools, and schools with more economically disadvantaged students (Alliance for Excellent Education, 2014; Barnes et al., 2007; Ingersoll & Perda, 2010; U.S. Department of

Education, 2016; Watlington et al., 2010). The Blue-Ribbon Task Force also noted that the majority of reported teacher vacancies are concentrated in southwest Kansas, Wichita and Kansas City, Kansas (Kansas State Department of Education, 2016). It is important to note that southwest Kansas is extremely rural while Wichita and Kansas City, Kansas are urban areas.

This study contributed to existing research in several ways. First, the deeper understanding of teacher self-efficacy in the dimensions of instructional strategies, classroom management, and student engagement could provide specific areas of focus in developing efficacy in the teacher preparation programs, in support programs for new teachers, and in professional development for the more experienced teachers. Second, additional information on the study of teacher turnover was obtained by the association of self-efficacy to commitment and intent to leave. And third, the study tested various models with these associations by considering number of years of teaching, gender, race, and school setting. To that end, the study utilized a survey designed to address three research questions:

1) To what extent do teacher self-efficacy, commitment, and intention to leave indices vary based on years of experience, gender, race or ethnicity, and school setting?
    a) Self-efficacy in student engagement
    b) Self-efficacy in instructional strategies
    c) Self-efficacy in classroom management
    d) Teacher Commitment
    e) Intention to leave
2) How do these indices relate to each other?

3) To what extent are teachers' intention to leave related to self-efficacy scales in classroom management, instructional strategies, student engagement, and commitment when controlling for years of teaching experience, gender, race or ethnicity, and school setting?

The next section reviews the current knowledge related to the constructs of self-efficacy, teacher efficacy, exit, voice and loyalty, commitment, as well as evidence drawn from the literature that suggest links among these variables. Chapter 3 presents the research methodology used to gather and analyze empirical evidence to answer the inquiry in this study. Discussed in Chapter 4 are the findings from the analysis of collected data. Finally, Chapter 5 discusses the significance, implications, and limitations of the study. Insights on the recommendations for further research built upon the findings of this study are also included.

CHAPTER 2

Review of Literature

This brief literature review will explore the research related to self-efficacy and teacher commitment in association with teachers' intention to leave. In addition, the literature describes the relationship between gender, school setting and other dynamics and teacher self-efficacy, commitment, and intention to leave.

Social Cognitive Theory and Self-Efficacy

Bandura's social cognitive theory provided the theoretical basis for pursuing this study. Social cognitive theory can be useful to understand and predict individual and group behavior and identify ways in which behavior are changed. People's thoughts, beliefs, and feelings affect how they behave (Bandura, 1993). According to the Social Cognitive theory, self-referent thought of an individual act as a mediator between his or her knowledge and actions (Bandura, 1993). This social cognitive model considers self-reflection as a unique capability, through which an individual evaluates and alters his behavior including the perceptions of self-efficacy.

The Social Cognitive Theory views self-efficacy beliefs as one that provides foundation for human motivation, well-being, and personal accomplishments (Bandura, 1993; Pajares, 2002). Bandura (1993) introduced the concept of self-efficacy as people's beliefs about their abilities to produce designated levels of performance. It is also believed that an individual's motivation to do a particular task and actions is based on what he or she believes he or she can do. Sense of self-efficacy determines what people do with the knowledge and skills they have; how well they motivate themselves in the face of adversities; their resilience, their thought patterns and emotional reactions; and the courses of action they pursue (Bandura, 1993; Pajares, 2002).

Self-efficacy also plays an important role in human agency. Self-efficacy helps individuals decide which courses of action to pursue and whether to persist in the face of environmental adversities (Bandura, 1997).Those who believe they have the capability to succeed are more likely to persist in the face of adversity and invest significant effort to achieve goals, whereas, those who doubt their skills and competencies are more likely to see such efforts as futile and will not endure (Bandura, 1997).Similarly, other researchers support that self-efficacy can affect behavior and cognition in activity choice, goal setting, effort and persistence, as well as learning and achievement (Betz, 2007; Mccormick & Martinko, 2004). They suggest that people with high efficacy are more likely to view difficult tasks as something to be mastered rather than something to be avoided while the people with weak efficacy more likely to avoid challenging tasks and finally they focus on personal failings and negative outcomes (Bandura, 1997; Betz, 2007; Pajares, 2002).

This has led to various researches aimed at understanding self-efficacy as an important influence of human achievement in a variety of settings, including the education sector which lead to the conceptualization of teacher self-efficacy.

Teacher Self-Efficacy

Scholarly inquiries on teacher efficacy beliefs of teachers have been a growing interest in past two decades (Chan et al., 2008; Chu, 2011; Clark, 2009; Coladarci, 1992; Holzberger, Philipp, & Kunter, 2013; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Hoy, 2001; Tschannen-Moran, Hoy, & Hoy, 1998). Teacher self-efficacy is the teacher's belief in his or her ability to complete the steps required to successfully accomplish a particular teaching task in a given context (Tschannen-Moran et al., 1998). Goal setting, exerting effort and persisting amidst difficulty in reaching these goals are consequences of teacher self-efficacy.

Dembo and Gibson (1985) conceptualized that teacher efficacy can be distinguished into generalized self-efficacy and personal self-efficacy. Generalized self-efficacy of a teacher refers to the expectation that teaching can influence student learning. This conceptualization reflects the teacher's belief on how environment could affect their students' learning, that is, the extent to which their students can be taught given such factors as family background, IQ, and school conditions. Personal self-efficacy beliefs would be teachers' beliefs that their actions bring about positive student change considering their environment and that they have the necessary skills to do so. It is argued that teachers who have high teacher efficacy would persist longer, provide a greater academic focus in the classroom, and exhibit different types of feedback than teachers who had lower efficacy score (Dembo & Gibson, 1985). Conversely, teachers who scored low on both general and personal efficacy were expected to give up readily if they did not get results.

Later on, Tschannen-Moran et al. (1998) proposed a model of teacher self-efficacy that operationalizes teacher efficacy as teacher's belief in his or her capabilities to execute the action to produce desired student outcomes. This model assumes the major influences on teacher efficacy beliefs are initially based on the four sources suggested by Bandura (i.e. mastery experiences- experience success, physiological arousal- performance is attributed to internal or controllable cause, anxiety and excitement, vicarious experience – observing, verbal persuasion- use of feedback/encouragement). Tschannen-Moran and Hoy (2001) emphasized the context specific nature of teacher self-efficacy. Teachers do not feel equally efficacious for all teaching situations. Classroom management, instruction, and student engagement are the three critical facets of effective teaching. Teacher self-efficacy in instructional strategies describes the confidence to design and implement learning tasks to facilitate learning in the classroom. The teacher's beliefs on their ability to maintain order in the classroom pertains to teacher self-

efficacy for classroom management. Lastly, self-efficacy for student engagement concerns a teacher's belief on his or her ability to help students to exhibit and sustain involvement and engagement for learning.

Teachers efficacy influences teacher behavior (e.g. persistence, instructional effort, goal selection). Teacher efficacy has been found to be correlated to instructional quality (Tschannen-Moran & Hoy, 2001), teacher's persistence (Chan et al., 2008), teacher burnout (Fives et al., 2007; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik 2007), the likelihood that teachers will stay in the teaching profession (Burley et al., 1991), and job satisfaction (Caprara et al., 2006).

It is important to understand that self-efficacy is not an actual measure of competence, but a sense of confidence in, or future-oriented perception of, the competence one might expect to display given a certain set of circumstances (Hoy & Spero, 2005). People regularly overestimate or underestimate their actual abilities, and these estimations may have consequences for the courses of action they choose to pursue and the effort they exert in those pursuits (Hoy & Spero, 2005). In this perspective, teachers may also overestimate or underestimate their actual competence which will then affect their choices and actions in their teaching. Furthermore, since teacher efficacy was correlated to satisfaction with performance and level of support given to new teachers (Caprara et al., 2006; Høigaard, Giske, & Sundsli, 2012; Hoy, 2000; R. Klassen & Chiu, 2010) this study also suggests that teacher efficacy will also be linked to commitment and intention to leave. According to Bandura, efficacy beliefs determine how environmental opportunities and impediments are perceived (Bandura, 1993, 1997) and this affect the choice of activities, how much effort is expended on an activity, and how long people will persevere when confronting obstacles or difficult situations. This suggests that teacher self-efficacy may play an important role in one's decision to stay or leave the teaching profession.

Developing teacher efficacy among preservice teachers has invited a great deal of research attention because these beliefs are more pliable in the early years but appear to be somewhat resistant to change once established (Bandura, 1997; Hoy & Spero, 2005). It has been found that preservice teachers' efficacy scores increase after their student teaching experience (Knoblauch & Hoy, 2008). However, two studies reported that perception of teacher efficacy fell during the actual in-service teaching (Clark, 2009; Hoy & Spero, 2005). It is argued that novice teachers' sense of efficacy may have decreased as a result of experiencing reality shock (Veenman, 1984). As the novice teacher enters their first year of teaching, they experience reality shock or unrealistic optimism that refers to the contrast between their ideal expectations of envisioned during preparation for teaching and the reality of everyday classroom life (Veenman, 1984; Weinstein, 1988). Teacher education programs are often blamed for the fact that many teachers realize they are underprepared for their roles (Clark, 2009). The reality shock tends to lead teachers to complain that their training failed to provide them with the knowledge base needed for teaching, and particularly that it failed to offer the badly needed know-how for handling student discipline problems and classroom-behavior disturbances (Friedman, 2000). Studies demonstrate that the more unprepared teachers feel, the more likely they are to leave the profession (Darling-Hammond, 2003; Veenman, 1984).

Bandura (1997) argued that self-efficacy beliefs will remain stable once established and findings from other research support that teacher's self-efficacy increase with experience (Wolters & Daugherty, 2007). Findings show that teachers with more years of teaching experience exhibited more confidence in their abilities to employ instructional and assessment practices and to maintain order in their classrooms. This may be because novice teachers have not obtained as much additional on-the-job trainings or professional development needed to

master or be successful in these areas. Moreover, more experienced teachers are likely to have more content-specific and pedagogical knowledge, different attitudes about their students, better sensitivity to classroom events, and think and behave differently in the classroom compared to less experienced teachers (Wolters & Daugherty, 2007). Though, Wolters and Daugherty (2007) did not find any difference in the student engagement self-efficacy beliefs of the teachers when compared by years of experience. Mastery experiences are postulated as the most potent source of teacher's sense of self-efficacy (Bandura, 1997). Because novice teachers have fewer mastery experiences or successful experiences of overcoming challenging situations that will allow them to develop their skills, this may explain why their self-efficacies tend to be lower compared to teachers with longer tenure.

However, results from other studies reflect a nonlinear relationship with self-efficacy and years of experience (Klassen & Chiu 2010). The research suggest that teacher self-efficacy rise through the early years and into the mid-career years, but these beliefs weakens, and self-efficacy declines into the later stages of the teaching career. There is reason to believe that the decline of self-efficacy towards the end of their career may be associated to disengagement, disappointment, dissatisfaction, lack of motivation, declining health, or mere anticipation of retirement.

There is a strong need to study the teacher efficacy beliefs to help us understand how we can improve teacher preparation, induction programs, and professional learning opportunities to be adequate for the demands and challenges of teaching in the classroom today. Considering that other sources of self-efficacy such as physiological and emotional feedback, observation of models, and social persuasion need to play a more prominent role in increasing the novice

teachers' self-efficacy beliefs and to counter the lack of mastery experiences (Wolters & Daugherty, 2007).

Due to the conflicting results in existing research, there is still knowledge gap on how new teachers compare with more experienced teachers in their self-efficacy that occurs in the specific dimensions of instructional strategies, classroom management, and student engagement. There is also benefit in understanding how years of experience affect teacher self-efficacy as it relates to teacher commitment and intention to leave. Greater knowledge of the relationship of self-efficacy beliefs of teachers and teacher commitment can expand scholars' understanding of these construct as well as assist teacher educators, school and district leaders, and other practitioners in fostering teachers' sense of efficacy and commitment. Benefits may include greater teacher motivation, better teacher retention, and improved student outcomes associated with enhanced teacher self-efficacy beliefs.

Exit, Voice, and Loyalty in Education

The concepts of *Exit, Voice and Loyalty* were developed by Hirschman (1970) to explain two responses of states, firms, and individuals to unsatisfactory or deteriorating situations. One alternative to dissatisfaction with organizations is exit, which is for the member to quit the organization or to switch to the competing product. Hirschman notes that exit can be an effective signaling mechanism for actively improving the quality of the output, otherwise there is the danger for further exits. Voice is the other alternative in which members or customers to agitate and exert influence for change from within.

Loyalty can modify the response, causing one to stand and fight (voice) rather than cut and run (exit). It is seen in the function of retarding exit and of permitting voice to play its proper

role. It is possible that when teacher efficacy is low, teachers grapple with the decision between voice and exit while being confronted by their loyalty and commitment.

When teachers decide to exit, this could be either migration or attrition. Teachers who exited their current positions and moved to a different school are referred to as movers, while leavers are those teachers who left the profession entirely. Between 2011 and 2013, 59% of the movers transferred within the same school district, while 38% moved to a different public school district and 3% moved to private schools (U.S. Department of Education, 2016). Movers claimed personal factors and school factors as the most common reasons for their transfer while leavers report retirement and transitioning to a non-teaching position as their primary motivations for exit (U.S. Department of Education, 2016).

Teacher Commitment

Mowday, Porter, and Steers (2013); Reyes (1990) referred to teacher commitment as the strength of an individual's identification with and involvement in a specific organization. Teacher commitment is characterized by a strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong intent or desire to remain with the organization. It indicates an intention to stay in teaching and can be categorized as organizational, which is commitment to the school, or as professional, which is the commitment to the student learning (Ebmeier, 2003).

Firestone and Rosenblum (1988) suggested that teachers maybe committed to teaching, their school, or their students, and that their patterns of behavior vary depending upon which commitments are stressed. Firestone and Pennell (1993)also argued that state-level policies—differential incentive policies, including merit pay, career ladders, school incentive programs,

and mentor programs—can affect teacher commitments. Their argument is that such policies influence commitments by shaping teachers' working conditions.

In addition to that, teacher self-efficacy has been found to be a significant predictor of teacher commitment (Chan et al., 2008; Coladarci, 1992; Ebmeier, 2003). People with high self-efficacy attribute failure to a lack of effort and skills, which they believe are in their hands to control, allowing them to see the difficult task as an opportunity for mastery and recover quickly after a setback (Bandura, 1993). Teachers who are dissatisfied with their work display lower commitment and are at greater risk for leaving the profession. High teacher efficacy is then important for teachers to persist through the challenges and encourage commitment to stay in the teaching profession.

Between 2011 to 2013, the percentage of teachers leaving the profession was highest, 16%, among teachers with more than 25 years of experience followed by teachers having at most two years of experience with 15% (U.S. Department of Education, 2014). Teaching experience was found correlated with teacher commitment (Chan et al., 2008) which was not consistent with the findings of Coladarci (1992) and of Riehl and Sipple (1996). One of the possible explanations for such inconsistency is the variations in operationalization of teacher commitment. Some of the studies reviewed did not distinguish between teachers' professional and organizational commitment, whereas others did. It is possible that a particular individual variable is an antecedent of teachers' professional commitment, but not organizational commitment, or the other way around. This may also explain why among teachers with at most 2 years of experience, a higher percentage move to other schools (27%) than actually leaving the profession (15%) (U.S. Department of Education, 2014).

Reduced personal accomplishment is accessed through a person's negative self-evaluation in relation to his or her job performance depicted by low morale and low productivity (Schwarzer & Hallum, 2008). People with low self-efficacy are susceptible to stress and depression as they take their perceived inability to take difficult task personally (Bandura, 1993).Teachers with low efficacy cope by withdrawal that heightens emotional exhaustion and depersonalization (Bandura, 1997).

The theory of self-efficacy suggests that an optimistic belief in one's competence to deal with daily challenges enhances their motivation to employ constructive ways of coping with adversity. Thus, teachers with higher self-efficacy would take teaching demands as being less threatening than teachers who have self-doubts about their professional performance. Successful adjustment to stressful demands would prevent the emergence of job burnout (Fives et al., 2007; Skaalvik & Skaalvik, 2010) Consequently, studies have shown that as teacher's self-efficacy increased, their level of burnout decreased (Fives et al., 2007; Schwarzer & Hallum, 2008). There is reason to believe that as a teacher's burnout increases, teacher's intention to leave is also strengthened. Consequently, this study postulated that lower teacher self-efficacy leads into higher emotional exhaustion that would initiate plans to leave and question their commitment.

School Setting and Gender

It has been found that school setting was also a factor as elementary teachers tend to stay longer in the profession and have higher job satisfaction compared to teachers from secondary school settings (Brill & McCartney, 2008; Guarino, Santibañez, & Daley, 2006; Kukla-Acevedo, 2009). On the other hand, it was found that teachers from the secondary school settings were more likely to stay in their current positions compared to their peers from the elementary schools

(Bobbitt, 1991). Contrary to these results, Hughes (2012) found that teachers from elementary and secondary school settings were equally likely to remain in teaching.

Also, female teachers tend to have greater workload stress, greater classroom stress from student behaviors, and lower classroom management self-efficacy compared to male teachers (R. Klassen & Chiu, 2010). Coladarci (1992) found that women had higher teacher commitment as compared to men. On the other hand, Riehl and Sipple (1996) did not find a significant gender effect on teachers' professional commitment. This leads us to another understudied aspect of whether the teacher efficacy with commitment and intention to leave would vary between female and male teachers, and across school settings.

The literature review shows us that teacher efficacy is essential for teachers' success and retention in the classroom. It also points out areas of further studies that considered the self-efficacy beliefs of novice and seasoned teachers. It is important to understand how perceptions and teacher efficacy vary according to years of experience, including its association to other teacher outcomes to add additional insight to current studies.

Likewise, there is scant research that examines teacher self-efficacy beliefs among teachers and how it relates to commitment to their teaching profession and their intention to stay in their positions. In this respect, this study is important to fill the gap in existing research by examining the difference of teacher self-efficacy among teachers of different years of experience and its connection to their level commitment and intention to leave, and the differences in these relationships in the lens of other teacher characteristics and school setting.

CHAPTER 3

Methodology

This section begins with an overview of the research method and design, a review of the purpose of the study, and information about the target sample. The list of measures and operational definition of variables are presented next. Lastly, data collection procedures and analysis are identified.

This study employed a survey research design to identify trends in attitudes, opinions, behaviors, or characteristics of a large group of people (Creswell & Creswell, 2017; Glasow, 2005). Employing this quantitative method is optimal when understanding how specific factors influence an outcome (Creswell & Creswell, 2017; Glasow, 2005). The survey in this study examined the relationships between teacher self-efficacy, years of teaching experience, teacher commitment, and intention to leave. The purpose of this study was to determine the extent of variation among the teacher self-efficacy, commitment, and intention to leave indices based on years of experience, gender, race or ethnicity, and school setting. Furthermore, this study explored how these indices relate to each other, more specifically how they influence teachers' intention to leave or quit.

Sample

Using convenience sampling, this study included 201 teachers from an urban school district located on the eastern border of Kansas. The school district identity will be presented throughout this study under the pseudonym, Hilltop School District. With a Head Start program, three preschools, 30 elementary schools, 8 middle schools, and 5 high schools, the district serves a diverse mixture of students as shown in Table 1. For comparison purposes, Table 1 includes data from the State of Kansas, as well as enrollment figures from the United States. The student

population in the district is mostly composed of Hispanic, 50%, and African-American, 29%., with both subgroup populations greater than that of the state and the U.S. Moreover, the district has 90% of its students qualify for free or reduced lunch, and 35% receive services related to English Language Learners. These values are more than twice the numbers for both Kansas and the United States and reflect the high needs in the district.

Table 1.
Enrollment Profiles

	Hilltop SD	**Kansas**	**U.S.**
Enrollment	22,902	497,088	50,376,810
Race/Ethnicity			
African-American	29%	7%	15%
Asian	7%	3%	5%
Hispanic	50%	20%	27%
White	10%	64%	48%
Other	4%	6%	5%
Free/Reduced	90%	47%	47%
ELL Services	35%	11%	9%
Student per Teacher Ratio	13.5	13.67	15.5

Source: U.S. Department of Education, National Center for Education Statistics. (2019). Common core data: Public school district data for the 2017-2018 and 2018-2019 school years.

To serve its students, the district employs more than 3,800 staff, including more than 1,700 teachers. The student academic outcomes in the district fall below the state average (Kansas State Department of Education, 2019). The ACT score of the district averages at 16.2, which is lower compared to 21.6 average score for the state of Kansas. A similar trend can be observed in the district's state assessment scores (Kansas State Department of Education, 2019). Forty-four percent of the students in the district who took the Kansas Assessment Program show limited ability to understand and use math skills and knowledge needed for college and career, while only 28% are on this level statewide. The state has 29% of its students indicate limited abilities in English Language Arts in comparison to almost 50% for the district. In addition to the

problem of low academic outcomes, teacher retention is also a great challenge for the district. According to a personal communication with the district's human resource department, the average teacher turnover rate in 2018-2019 school year is about 40 percent.

Measures

An electronic survey with 26 questions was administered to the sample of teachers (See Appendix A). This survey is divided into three sections. The first section asked the questions from the Teachers' Sense of Efficacy Scale (TSES) adapted from Tschannen-Moran and Hoy (2001), while the second section utilized the questions on teacher commitment and intention to quit adapted from the scales used by Chan et al. (2008), Burke (1991) and Høigaard et al. (2012). Questions on the demographics were asked in the last section including but not limited to questions on gender, race and ethnicity, years of teaching experience, and school setting.

Teacher self-efficacy. Participants in the study completed the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Hoy, 2001).The scale consisted of 12 items on the three dimensions of teacher self-efficacy: (a) efficacy for instructional strategies (InstructStrat), which captured teachers' sense of efficacy in developing and implementing instructional strategies to meet students' needs; (b) efficacy for classroom management (ClassMgt), which measured teachers' sense of efficacy in maintaining classroom order and helping students follow rules; and (c) efficacy for student engagement (StuEngage), which described teachers' sense of efficacy in engaging and motivating students to learn. Sample items include, "To what extent can you provide an alternative explanation and example when students are confused?" as well as "How much can you do to control disruptive behavior in the classroom?" Although Tschannen-Moran and Hoy (2001) designed this with a 9-point scale, for the purpose of this study the items

were rated by participants based on a 5-point scale with the following descriptors: 1-nothing, 2-very little, 3-some degree, 4-quite a bit, and 5-a great deal. The scale has been previously validated with Cronbach's alpha for the subscales ranging from .90 to .93 (See Appendix B).

Teacher commitment. This adapted teacher commitment scale (Chan et al., 2008) included cognitive and affective evaluations of the profession ("Teaching is an excellent profession" and "I enjoy my school work very much"), career reselection ("I would leave teaching for another profession if I could," reverse-scored), as well as professional satisfaction ("This job gives me professional satisfaction") (see Appendix A). All four items were rated on a 5-point Likert-type scale (1-strongly disagree to 5- strongly agree). Higher scores indicate more teacher commitment.

Intention to Quit. This questionnaire consisted of two items (Burke, 1991; Høigaard et al., 2012): (a) 'If an opportunity presents itself, at this time in my career, I would leave my current position' and (b) 'I have had thoughts of leaving my present job.' The items were scored on a five-point Likert scale where higher score indicates a stronger intention to quit (See Appendix A).

Data Collection Procedure

The data for this study were collected using an electronic self-report survey questionnaire administered through the Qualtrics Survey Software. The use of web-based survey tools has broad academic acceptance as they are considered to be cost effective, supportive of current research and survey methodology, and have alternative educational applications. Surveys also allow for rapid gathering of large amounts of data that may not be accessible using traditional data gathering methods (Creswell & Creswell, 2017; Glasow, 2005). A permission to conduct the research was obtained from the school district as well as from the Institutional Review Boards

(IRB). The electronic survey was sent to roughly 1,700 teachers through their school district e-mail account. Note that only one e-mail invitation was permitted by the district. The e-mail included the participant information statement and the link to the survey where they can opt in to participate (see Appendix D). The survey was open for two weeks beginning from February 27th to March 12th of 2020. All the data collected through the electronic questionnaire and were kept anonymous and confidential at all times. The data was downloaded into a spreadsheet and uploaded into the StataSE software for analysis.

Data Analysis

This study adapted and combine three existing scales utilized by other researchers (Burke, 1991; Chan et al., 2008; Høigaard et al., 2012; Tschannen-Moran & Hoy, 2001). Factor analysis was used to determine whether the proposed structures from three scales are replicable in the current dataset. Confirmatory factor analysis (CFA) was used to examine the inter-correlations between all variables and produce dimensions or factors subsequently used for further data analysis in this study.

The collected data was analyzed using a comparison of means, correlations, and multiple regressions. Descriptive analysis included a description of the sample population, scale means and standard deviations for each of the variables in the study. Teacher Efficacy scores for instructional strategies (InstructStrat), classroom management (ClassMgt), and student engagement (StuEngage) will be compared by gender, race, years of experience, and school setting using T-test and analysis of variance (ANOVA). T-test and analysis of variance were also conducted for the teacher commitment and the intention to quit scores. Pearson's correlation coefficients were estimated to explore the strength and direction of association among the variables.

According to Gal, Borg, and Gal (2008), multiple regressions are used to determine the magnitude of the relationship between a dependent variable and a combination of two or more independent variables. For this study, multiple regression analysis was used to test to estimate the relationships between the scores for the three domains of teacher self-efficacy, teacher commitment, and intention to quit while controlling for years of teaching experience, gender, race, and school setting. The unmoderated effect of each of the three teacher efficacy scores, teacher commitment, years of experience, gender, and school setting on teacher intention to quit was explored (See Equation 1).

Equation 1

$$IntQuit_i = \beta_0 + \beta_1 ClassMgt_i + \beta_2\ StuEngage_i + \beta_3 InstructStrat_i + + \beta_4 Commitment_i + \beta_5 Female_i + \beta_6 White_i + \beta_7 Years_i + \beta_8 Setting_i + \varepsilon_i$$

Where:

IntQuit	= Intention to quit
ClassMgt	= Classroom Management index
StuEngage	= Student engagement index
InstructStrat	= Instructional Strategies index
Commitment	= Teacher commitment index
Female	= Female (1=female, 0=male)
White	= White (1=white, 0=non-white)
Years	= Years of teaching experience
Setting	= School setting
ε	= Unidentified error (factors not in model)

In Equation 1 teacher's intention to quit was utilized as the dependent variable. The independent variables are the teacher efficacy scores in instructional strategies, classroom management, and student engagement, together with teacher commitment. Years of experience, race (white or non-white), gender, and school setting were used as control variables. The multiple regression analysis was conducted in hierarchical fashion to show how the addition of a specific independent variable influenced the regression model.

CHAPTER 4

Results

This study was designed to investigate the relationships, if any, among teacher self-efficacy, years of teaching experience, teacher commitment and intention to leave. The goal of this study was to answer three key research questions. The first question focused on the extent of variation among the teacher self-efficacy, commitment, and intention to leave indices based on years of experience, gender, race or ethnicity, and school setting. The second question of this study explored how these variables are related while the third question concentrated on how they influence intention to leave. The research methodology, data collection, and data analysis have all been designed and implemented in order to answer these research questions. Throughout this chapter, the data collected surrounding these questions will be presented, discussed, and analyzed.

There were four phases of the data analysis. The first phase is the factor analysis followed by the descriptive analysis of the sample population, and scale means and standard deviations for each of the variables in the study. The third phase included the comparison of the means, estimation of correlation coefficients and analysis of variance in the teacher self-efficacy scores for instructional strategies (InstructStrat), classroom management (ClassMgt), and student engagement (StuEngage) by years of experience, race, gender, and school setting. The final phase conducted and analyzed multiple regression analyses presented in hierarchical structure to estimate the relationships between the scores for the three domains of teacher self-efficacy, teacher commitment, and intention to quit while controlling for years of teaching experience and gender.

Factor Analysis

To ensure the scales are reliable and valid for this study, factor analysis and calculation of reliability estimates were undertaken. Shown in Table 2 are the 12 from TSES (Tschannen-Moran & Hoy, 2001) , four items from Teacher Commitment Scale (Chan et al., 2008), and two items from Intention to Quit Questionnaire (Burke, 1991; Høigaard et al., 2012) which were combined and subjected to exploratory factor analysis with 5 factors specified. The Kaiser-Meyer-Olkin measure of sampling adequacy was .766 which is above the recommended threshold of .6 (Kaiser, 1974). The Barlett's Test of Sphericity also appeared to be significant ($p < .001$) which means the correlations were sufficiently large for the factor analysis.

Factors were obliquely rotated using the Promax rotation method as the factors were believed to be related and not orthogonal. Confirming the work of Tschannen-Moran and Hoy (2001) in developing Teacher Self-Efficacy Scale, Questions 1, 3, 6, and 8 loaded into Factor 1 (ClassMgt) while Questions 2, 4, 7, and 11 loaded into Factor 2 (StudEngage) and Questions 5, 9, 10, and 12 loaded into Factor 3 (InstructStrat). Furthermore, Questions 13 and 14 from the adapted Intention to Quit Survey (Burke, 1991; Høigaard et al., 2012) loaded into Factor 5 (IntQuit). All the four questions, Questions 15 to 18, from the Teacher Commitment Scale (Chan et al., 2008) also loaded into Factor 4 (Commitment).

The results of the factor analysis show the convergent and discriminant validity of the survey as the items load on the same factor and do not load on a nearby factor. Note that despite the cross loading shown for Question 18 *'I would leave teaching for another profession if I could'* the item was not dropped from the analysis as the question loads for two originally different survey scales. After checking for validity, the tests for scale reliability and internal consistency of the questions were conducted by estimating the Cronbach's alpha.

Table 2
Rotated Factor Loadings and Unique Variances

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Uniqueness
1. How much can you do to control disruptive behavior in the classroom?	0.8167					0.3998
2. How much can you do to motivate students who show low interest in schoolwork?		0.4372				0.6801
3. How much can you do to calm a student who is disruptive or noisy?	0.6377					0.5763
4. How much can you do to help your students value learning?		0.6573				0.5000
5. To what extent can you craft good questions for your students?			0.5501			0.6823
6. How much can you do to get children to follow classroom rules?	0.7169					0.4286
7. How much can you do to get students to believe they can do well in school work?		0.6905				0.5011
8. How well can you establish a classroom management system with each group of students?	0.6228					0.4746
9. To what extent can you use a variety of assessment strategies?			0.6086			0.5953
10. To what extent can you provide an alternative explanation or example when students are confused?			0.6691			0.5772
11. How much can you assist families in helping their children do well in school?		0.3644				0.7719
12. How well can you implement alternative teaching strategies in your classroom?			0.5767			0.5088
13. If an opportunity presents itself, at this time in my career, I would leave my current position.					0.9059	0.1963
14. I have had thoughts of leaving my present job.					0.8672	0.2488
15. Teaching is an excellent profession.				0.7845		0.4845
16. This job gives me professional satisfaction.				0.5173		0.5324
17. I enjoy my schoolwork very much.				0.6708		0.3549
18. I would leave teaching for another profession if I could.				0.3956	-0.4044	0.5653

Note: Blanks represent loadings < 0.3

The measure of internal consistency for the scales are shown in Table 3 with alpha greater than the threshold .7 (Nunnally, 1978). Although removing one of the items in Self-Efficacy for Student Engagement scale would have increased its alpha to .7107, the item was not dropped believing that this would report a more complete picture of the construct.

Table 3
Reliability Statistics

Test Scale	Cronbach's Alpha
Self-Efficacy for Classroom Management	0.8144
Self-Efficacy for Student Engagement	0.6858
Self-Efficacy for Instructional Strategies	0.7252
Teacher Commitment	0.7669
Intention to Quit	0.9045

Descriptive Statistics

Demographic Characteristics of Teachers. The electronic survey was distributed to 1700 teachers from a large urban school district. Of the 1,700 teachers who received the invitation, 201 people participated in the survey indicating a 14.29% participation rate. Teacher characteristics were analyzed, including number of years teaching, gender, race and ethnicity, as well as school setting.

Table 4 shows that the majority of the respondents to this study are female teachers, taking 80.4% of the sample population. Similarly, most of the participants identified themselves as White, 84%, while about 7% identified as African American, 8% are Hispanic or Latino, and less than 1% identified as Asian, Native Hawaiian, or Other Pacific Islander. For the purpose of this study, the teachers who identified their race or ethnicity as solely white were referred to as White teachers, while the rest of the participants who indicated otherwise or with mixed race and ethnicity was referred to as non-White teachers. This is because majority of the participants in this study include White teachers (*n=167)* compared to non-White participants (*n=32)*. As shown in Table 4 categories such as Asian, Native Hawaiian or Other Pacific Islander and Other race and ethnicity have less than five participants. This is why inferential analysis utilized the

independent binary variable, White, and was coded 1 for White teachers and 0 for non-White teachers. Based on the district wide data presented in Table 4, the sample appears to be representative of the district's teaching staff.

Table 4

Demographics of Survey Participants from Hilltop School District

Category	Survey Sample		Population
	N	(%)	(%)
Gender			
Male	39	19.60	32.3
Female	160	80.40	77.7
Race and Ethnicity			
African American	13	6.53	13.0
Asian	1	0.50	3.0
Asian, Native Hawaiian or Other Pacific	1	0.50	
Hispanic or Latino	12	6.03	6.0
Hispanic or Latino, White	4	2.01	
White	167	83.92	78.0
Other	1	0.50	
School Setting			
Primary (PK-2)	53	26.63	52.9
Intermediate (3-5)	57	28.64	
Middle School (6-8)	33	16.58	20.2
High School (9-12)	53	26.63	24.2
Alternative School	3	1.51	2.7
Years of Teaching			
5 years or less	70	34.83	49.7
6-10 years	38	18.91	16.3
11-15 years	29	14.43	12.2
16-20 years	27	13.43	9.8
21 years and above	37	18.41	12.0

There were 53 teachers from the primary school setting, 57 from the intermediate school, 33 from the middle school, 53 from the high school, and 3 from the alternative school setting. In terms of the years of teaching experience, about 35% of the respondents have 5 years or less, 19% of the teachers have 6 to 10 years of teaching experience, 14% of the teachers have 11-15 years, 13% of them have 16 to 20 years, and about 18% have been teaching for over 20 years.

Survey Means. Table 5 gives the scale means and standard deviations for classroom management (ClassMgt), instructional strategies (InstructStrat), student engagement (StuEngage), teacher commitment (Commitment) and intention to quit (IntQuit). The participants scored at least 3.5 out of 5 in all subscales from the survey. Teachers scored themselves the highest on their self-efficacy in instructional strategies (M = 4.08, SD=. 59), followed by classroom management (M = 3.88, SD=. 61), intention to quit (M = 3.74, SD=1.31), commitment (M = 3.57, SD=. 92) and obtained the lowest average on their self-efficacy scores in student engagement (M = 3.55, SD=. 54). This suggests that the participants in this study felt more confident in their ability to successfully use effective instructional strategies and manage their classrooms than engage their students to learn.

Table 5

Survey Means (out of 5) and Standard Deviation

Variables	*M*	*SD*
(1) ClassMgt	3.881	.609
(2) InstructStrat	4.078	.590
(3) StuEngage	3.554	.544
(4) Commitment	3.572	.924
(5) IntQuit	3.744	1.312

N=194

The next section presents the comparison of the means and analysis of variance in the teacher self-efficacy scores for instructional strategies (InstructStrat), classroom management (ClassMgt), and student engagement (StuEngage) while controlling for years of experience, race, gender, and school setting.

Research Question #1

The first research question in this study aims to understand if teacher self-efficacy, commitment, and intention to quit indices would vary based on years of experience, gender, race or ethnicity, and school setting. To explore these differences, a series of independent t-tests was conducted to compare Teacher Efficacy scores for instructional strategies (InstructStrat), classroom management (ClassMgt), and student engagement (StuEngage), teacher commitment scores (Commitment), and intent to quit scores (IntQuit) by gender and race (white and non-white). An alpha level of .05 was utilized for this analysis.

Out of the 201 participants in this study, only 194 of the responses were complete. The following data analysis reflects that of the 194 completed surveys. Table 6 presents the descriptive statistics. All groups indicated are normally distributed.

Table 6
Scale Means for Gender and Race/Ethnicity Subgroups

		ClassMgt		InstructStrat		StuEngage		Commitment		IntQuit	
Category	*n*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Gender											
Male	38	3.77	.605	4.09	.602	3.39	.544	3.51	1.11	3.96	1.24
Female	156	3.90	.609	4.08	.589	3.59	.539	3.58	.875	3.70	1.33
Race and Ethnicity											
African American	13	4.04	.644	4.23	.718	3.82	.581	3.73	1.01	3.84	1.21
Asian	1	4.25	.	3	.	3.75	.	3.75	.	3.5	.
Asian, Native H. or Pacific Islander, White	1	3.25	.	4.5	.	3.25	.	3.75	.	4.5	.
Hispanic or Latino	11	3.93	.404	3.97	.480	3.63	.438	3.36	1.06	3.22	1.45
Hispanic or Latino, White	4	4.06	.590	4.43	.657	3.75	.540	3	1.74	4.5	1
White	163	3.85	.616	4.06	.581	3.52	.544	3.58	.895	3.75	1.32
Other	1	5	.	4.75	.	4.5	.	3.5	.	4	.

Note: M=mean, SD=Standard Deviation. N=194.

As shown in the mean scores listed in Table 6, female teachers earned higher scores in their self-efficacies for classroom management and student engagement as well as in their commitment to the profession and their positions. On the other hand, male teachers scored a little higher in self-efficacy for instructional strategies and had greater intention to quit. Significance of these differences are examined in Table 7.

Moreover, the values presented in Table 6 also show that African American and Hispanic or Latino teachers obtained higher scores in their self-efficacies for classroom management and instructional strategies compared to White, Asian, Native Hawaiian or Other Pacific Islander teachers. Similarly, teachers who have identified themselves as African Americans scored the highest in teacher commitment and teacher efficacy in engaging students. White teachers scored the lowest in their commitment to their position and teaching profession. As noted in the earlier section, majority of the participants in this study include White teachers (*n=167)* compared to a small number of teachers who identified themselves under a different or mixed race and ethnic groups (*n=32)*. Hence, further analysis will refer to the independent variable race and ethnicity as White or non-White.

Table 7

T-test Results for Independent Samples

	StuEngage	InstructStrat	ClassMgt	Commitment	IntQuit
Category	*M*	*M*	*M*	*M*	*M*
Female	3.597	4.08	3.904	3.575	3.7
(difference)	(-.202)**	(.013)	(-.134)	(-.061)	(.26)
White	3.521	4.069	3.852	3.575	3.756
(difference)	(.229)**	(.085)	(.165)	(-.074)	(-.03)

Note **$p<0.05$.

Table 7 presents the results from the t-test for independent groups which was conducted to compare the female teachers' self-efficacy in student engagement scores to that of the male teachers. Female teachers had significantly higher student engagement efficacy scores (M = 3.59, SD = 0.55) than male teachers (M = 3.39, SD = 0.54), $t(194) = 2.05$, $p = .042$. Results of another t-test indicated that the difference between the student engagement efficacy scores of White teachers (M = 3.52, SD = 0.55) and non-White teachers (M = 3.75, SD = 0.11) are significant, $t(194) = 2.14$, $p = .02$.

Likewise, the t-test for independent groups was used to determine whether the teacher self-efficacy indices in instructional strategies would vary by gender. The results shown in Table 4 indicate that there is no significant difference between female teachers (M = 4.08, SD = 0.60) and male teachers (M = 4.09, SD = 0.59), $t(193) = 0.17$, $p = .45$. Similarly, another t-tests results indicated that there were no significant differences between White teachers (M = 4.06, SD = 0.58) and non-white teachers (M = 4.15, SD = 0.64), $t(193) = 0.73$, $p = .23$, in terms of teacher efficacy in instructional strategies.

The results summarized in Table 7 also show that the difference between the classroom management self-efficacy scores of female teachers (M = 3.90, SD = 0.61) and male teachers (M = 3.77, SD = 0.61) are not significant, $t(194) = 1.22$, $p = .08$. By running another two-sample t-test, classroom management efficacy indices of White teachers were compared to those of teachers of another race or ethnicity. Results indicated that there were no significant differences between White teachers (M = 3.85, SD = 0.61) and non-white (M = 4.01, SD = 0.56), $t(194) = 1.38$, $p = .08$.

In order to determine if the difference in the mean commitment scores between female and male teachers is significant, an independent sample t-test was conducted. The results shown in Table 5 indicate that female teachers' commitment scores (M = 3.57, SD = 0.88) are not significantly different than the male teachers' commitment scores (M = 3.51, SD = 1.12), $t(193) = 0.37$, $p = .64$. Likewise, t- test results found no significant difference between the commitment scores of White teachers (M = 3.57, SD = 0.90) and non-white teachers (M = 3.5, SD = 1.08), $t(193) = 0.40$, $p = .68$.

As shown in Table 7, a t-test for independent groups was conducted to compare the intention to quit indices by gender and by race. The test found no significant difference between the intention to quit scores of female teachers' (M = 3.70, SD = 1.33) and male teachers (M = 3.96, SD = 1.25), $t(193) = 0.40$, $p = .13$. Also, intention to quit scores of White teachers' (M = 3.76, SD = 1.33) are not significantly different compared to non-white teachers (M = 3.72, SD = 1.26), $t(193) = 0.11$ $p = .91$.

Moreover, in order to find whether the dependent variables (i.e. StuEngage, InstructStrat, ClassMgt, Commitment, and IntQuit) vary based on school setting (i.e. primary, intermediate, middle school, high school, and alternative) one-way analyses of variance were employed. The alternative school setting was added for the purpose of completion but may not necessarily be generalizable because of small sample (n=3). Prior to conducting the ANOVA, the assumption of normality was evaluated and determined to be satisfied as the five groups' distributions were associated with skew and kurtosis which are less than |0.5| and |2|, respectively.

Table 8

Scale Means by School Setting

School Setting	*n*	ClassMgt		InstructStrat		StuEngage		Commitment		IntQuit	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Primary (PK-2)	53	3.74	.577	3.94	.541	3.65	.445	3.42	.775	3.95	1.25
Intermediate (3-5)	57	4.02	.611	4.06	.550	3.60	.578	3.46	.904	3.69	1.27
Middle School (6-8)	33	3.97	.620	4.12	.605	3.39	.595	3.40	1.05	4.01	1.14
High School (9-12)	53	3.81	.610	4.21	.596	3.50	.584	3.91	.917	3.45	1.43
Alternative School	3	3.5	.433	4	1.52	3.5	.25	3.5	1.80	3.66	2.31

Note: M=mean, SD=Standard Deviation.

When it comes to the teachers' self-efficacy, Table 8 shows that teachers in the intermediate level had the highest mean score in classroom management while teachers from alternative schools got the lowest. High school teachers had the highest efficacy in instructional strategies. Even if the primary school teachers earned the lowest mean score for their self-efficacy instructional strategies, they had the highest confidence score in their ability to engage their students. Middle school teachers obtained the lowest score in terms of their commitment to the profession and their current positions and had the highest intention to quit mean score. On the other hand, high school teachers showed to have the highest commitment score and lowest intention to quit compared to teachers from other school setting. These differences are further investigated through analysis of variance.

Table 9

ANOVA Results in association with school setting

Dependent Variables	Source	*SS*	*df*	*MS*	*F*	*Prob > F*
StuEngage	Between groups	1.62602619	4	.406506546	1.35	0.2521
	Within groups	57.4157468	191	.300606004		
	Total	59.041773	195	.302778323		
InstructStrat	Between groups	1.9090974	4	.477274351	1.38	0.2429
	Within groups	65.7780821	190	.346200432		
	Total	67.6871795	194	.348902987		
ClassMgt	Between groups	3.20120899	4	.800302248	2.21	0.0697
	Within groups	69.2350155	191	.362486992		
	Total	72.4362245	195	.371467818		
Commitment	Between groups	8.74373313	4	2.18593328	2.60	0.0373**
	Within groups	159.549216	190	.839732714		
	Total	168.292949	194	.867489426		
IntQuit	Between groups	9.14387367	4	2.28596842	1.34	0.2580
	Within groups	325.043306	190	1.71075424		
	Total	334.187179	194	1.72261433		

Note **$p<0.05$.

The independent between-groups ANOVA results shown in Table 9 revealed a statistically significant between-groups differences in teacher commitment *(*$F(4,190) = 2.60$, $p = .037$, $\eta^2 = .052$). Thus, the null hypothesis of no differences between the means was rejected, and 5.2% of the variance in teacher commitment was accounted for by school setting. This means that teacher commitment scores are statistically different when associated to school setting. However, Table 9 also shows that there were no statistically significant differences between group means in self-efficacy of teachers on student engagement ($F(4,191) = 1.35$, $p = .252$), instructional strategies ($F(4,190) = 1.38$, $p = .242$), and classroom management ($F(4,191) =$

2.21, $p = .069$). Similarly, teachers' intention to quit are fairly equal when associated to their school setting ($F(4,190) = 1.34$, $p = .258$).

To evaluate the nature of the significant difference found in the teacher commitment scores when associated to school setting, a post-hoc comparison was employed. Interestingly, the post-hoc comparisons using Bonferroni test presented in Table 10 revealed that at alpha level of .05, there are no significant differences in commitment occurred among teachers from primary, intermediate, middle school, high school, and alternative schools. However, if an alpha level of 0.10 is utilized, the mean commitment score for primary teachers would be significantly different than the commitment scores of high school teachers. Furthermore, when analyzed using regression, the results showed the model to be statistically significant ($R^2 = 0.052$, $p < .037$). The coefficients for the group of high school teachers appeared to be significantly higher than primary teachers. Compared to teachers from the primary setting, being a high school teacher increases the commitment score by .49 units ($p < .05$).

Table 10

Comparison of Commitment by School Setting (Bonferroni)

Row Mean-Col Mean	Primary	Intermediate	Middle School	High School
Intermediate	.041835			
Middle School	-.016827	-.058662		
High School	.49359*	.451754	.510417	
Alternative	.076923	.035088	.09375	-.416667

Note *$p<0.10$.

In order to find whether the dependent variables (i.e. StuEngage, InstructStrat, ClassMgt, Commitment, and IntQuit) vary based on years of teaching experience (5 years or less, 6-10 years, 11-15 years, 16-20 years, and 21 years or above), one-way analyses of variance were employed.

Table 11

Scale Means and Standard Deviations by Years of Teaching

		ClassMgt		InstructStrat		StuEngage		Commitment		IntQuit	
Category	*n*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Years of Teaching											
5 years or less	70	3.69	.601	3.89	.607	3.56	.517	3.57	1.00	3.45	1.35
6-10 years	38	4.05	.568	4.29	.551	3.64	.498	3.76	.756	4.05	1.15
11-15 years	29	3.94	.635	4.04	.577	3.51	.490	3.42	.909	4.12	1.14
16-20 years	27	3.97	.564	4.16	.584	3.64	.691	3.41	1.01	4.02	1.12
21 years and above	37	3.92	.617	4.17	.537	3.41	.582	3.55	.926	3.51	1.50

Note: M=mean, SD=Standard Deviation.

The descriptive statistics presented in Table 11 shows that teachers who have been teaching for 6 to 10 years obtained the highest teacher self-efficacy scores in all three areas of classroom management, student engagement, and instructional strategies. They also appeared to have the highest teacher commitment. Teachers who have at most five years of experience reported to have the least confidence on their classroom management and instructional strategies. Surprisingly, they appear to have the lowest intention to quit while teachers who have been teaching for 11 to 15 years seem to have the highest intention to leave their position or the profession. To further understand the significance of these differences, analysis of variance was employed.

The ANOVA results shown in Table 12 revealed a statistically significant between-groups differences when it comes to teacher self-efficacy in instructional strategies *(*$F(4,190) = 3.29$, $p = .012$, $\eta^2 = .064$), classroom management *(*$F(4,191) = 2.77$, $p = .028$, $\eta^2 = .054$), and their intention to quit *(*$F(4,190) = 1.34$, $p = .039$, $\eta^2 = .051$) . Thus, the null hypotheses of no differences between the means for these independent variables were rejected. This means that

teacher self-efficacy in instructional strategies and classroom management scores, as well as the intention to quit scores are statistically different when associated to school setting. On the other hand, Table 12 also shows that there were no statistically significant differences between group means in self-efficacy of teachers on student engagement ($F(4,191) = 1.13$, $p = .343$) and teacher commitment ($F(4,190) = 0.74$, $p = .566$). Therefore, teachers' self-efficacy on engaging students and teachers' commitment are fairly equal when associated to their years of teaching experience. In other words, years of teaching do not necessarily separate the teachers' self-efficacy on student engagement and commitment.

Table 12
ANOVA results in association with Years of Teaching Experience

Dependent Variables	Source	*SS*	*df*	*MS*	*F*	*Prob > F*
StuEngage	Between groups	1.36455859	4	.341139647	1.13	0.3438
	Within groups	57.6772144	191	.301974944		
	Total	59.041773	195	.302778323		
InstructStrat	Between groups	4.38140063	4	1.09535016	3.29	0.0124**
	Within groups	63.3057789	190	.33318831		
	Total	67.6871795	194	.348902987		
ClassMgt	Between groups	3.96588664	4	.991471659	2.77	0.0288**
	Within groups	68.4703379	191	.358483444		
	Total	72.4362245	195	.371467818		
Commitment	Between groups	2.58018674	4	.645046684	0.74	0.5661
	Within groups	165.712762	190	.872172431		
	Total	168.292949	194	.867489426		
IntQuit	Between groups	17.1317004	4	4.28292509	1.34	0.0396**
	Within groups	317.055479	190	1.66871305		
	Total	334.187179	194	1.72261433		

Note **$p<0.05$.

Post-hoc Bonferroni comparisons shown in Table 13 reveal that significant differences in teachers' self-efficacy in instructional strategies occurred between teachers who have been

teaching for 6-10 years and those that have only been teaching for 5 years or less (*p= .011)*. Teachers with 6-10 years of experience obtained higher self-efficacy score in instructional strategies (M = 4.29, SD = .55) than those with less years of teaching experience (M = 3.89, SD= .60).

Table 13

Comparison of Teacher Self-Efficacy in Instructional Strategies by Years of Teaching Experience (Bonferroni)

Row Mean-Col Mean	5 years or less	6-10 years	11-15 years	16-20 years
6-10 years	.391287**			.
	0.011			
11-15 years	.145389	-.245898		
	1.000	0.906		
16-20 years	.267413	-.123874	.122024	
	0.435	1.000	1.000	
21 years or above	.274357	-.116929	.128968	.006944
	0.225	1.000	1.000	1.000

Note **$p<0.05$.

Similarly, Table 14 presents that teachers who have been teaching for 6 to 10 years (M = 4.05, SD = .57) had significantly higher self-efficacy score in classroom management than those with at most 5 years of teaching (M = 3.69, SD = .60) (p = .011).

Table 14

Comparison of Teacher Self-Efficacy in Classroom Management by Years of Teaching Experience (Bonferroni)

Row Mean-Col Mean	5 years or less	6-10 years	11-15 years	16-20 years
6-10 years	.362878**			.
	0.034			
11-15 years	.255252	-.107625		
	0.591	1.000		
16-20 years	.281046	-.081832	.025794	
	0.404	1.000	1.000	
21 years or above	.232435	-.130443	.022817	-.048611
	0.612	1.000	1.000	1.000

Note **$p<0.05$.

On the other hand, when post-hoc comparison using Bonferroni test was utilized to further assess the significant difference found in the intention to quit scores in association with years of teaching the results showed no significant differences among the group means. Table 15 shows that years of teaching do not necessarily separate the teachers' intention to quit. However, when analyzed using regression, the results showed the model to be statistically significant (R^2 = 0.051, $p < .033$). The coefficients for the group of teachers with 6-10 and 11-15 years of experience appeared to be significantly higher than teachers with at most 5 years of experience. Compared to teachers with 5 years or less teaching experience, having 6-10 years of experience increases the intention to quit score by .59 units ($p < .05$) and having 11-15 years of experience increases the intention to quit score by .67 units (($p < .05$).

Table 15

Comparison of Teachers' Intention to Quit by Years of Teaching Experience (Bonferroni)

Row Mean-Col Mean	5 years or less	6-10 years	11-15 years	16-20 years
6-10 years	.598172			.
	0.245			
11-15 years	.669118	.070946		
	0.221	1.000		
16-20 years	.563348	-.034823	-.105769	
	0.601	1.000	1.000	
21 years or above	.058007	-.540165	-.611111	-.505342
	1.000	0.757	0.620	1.000

Research Question #2

The purpose of the second research question was to understand how the indices for the three domains of teacher self-efficacy, teacher commitment, and intention to quit relate to each other. Table 16 presents the correlation coefficients of the given variables.

Table 16

Correlation among Teacher Commitment, Intention to Quit, and Teacher Efficacy scores on Classroom Management, Instructional Strategies, and Student Engagement.

Variables	ClassMgt	InstructStrat	StuEngage	Commitment
(1) ClassMgt				
(2) InstructStrat	0.363***			
(3) StuEngage	0.434***	0.367***		
(4) Commitment	0.224***	0.109	0.333***	
(5) IntQuit	-0.117	-0.011	-0.202***	-0.523***

*Note: N= 194. *** p<.01.*

Results indicated that significant positive association among the subscales of teacher self-efficacy (ClassMgt, InstructStrat, and StuEngage). This mid-range correlations show that they are related constructs since they are under the same domain of teacher self-efficacy. Teacher's commitment was also found to be positively correlated to self-efficacy in classroom management (r = .224, p = .002) and student engagement (r = .434, p < .001). Not surprisingly, the teachers' intention to quit (IntQuit) was found to have significant negative correlation with commitment (r = -.523, p < .001) and their confidence in their abilities to engage the students (r = -.202, p = .005). As teacher commitment and confidence in engaging students increase, the intention to leave tends to decrease.

Research Question #3

This study also sought to understand the extent of the relationship of teachers' intention to leave to commitment and self-efficacy in classroom management, instructional strategies, student engagement, while controlling for years of teaching experience, gender, race or ethnicity, and school setting. In order to achieve this, multiple regression models were utilized.

Prior to running the regression analysis, the data was tested for the Ordinary Least Squares (OLS) assumptions to make sure that the type of analysis chosen is the best fit for the data. Test results found the regression to be linear and that the predictors are uncorrelated to error term. and that there are no undue influential sample. However, due to the failure to reject the null hypothesis that the error variances are all equal through the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity, the use of robust standard errors was specified in the regression analyses.

Table 17 shows the results of the multiple regression analyses presented in hierarchical structure to examine the independent teacher variables and their effect on the teachers' intention to quit. First, the teacher self-efficacy in classroom management was entered as the independent variable into the model with intention to quit as the dependent variable. The results found the model as not statistically significant ($p = .148$). Additionally, the model only accounts for only about 1% ($R^2 = .012$) of the variance in the teachers' intention to quit. This means that the remaining 99% of the variation in intention to quit cannot be explained by a teacher's self-efficacy in classroom management alone. A similar outcome was found from Model 2 where the independent variable teacher self-efficacy in instructional strategies was added. The change in variance by .1% was not statistically significant ($\Delta R^2 = 0.001$, $p = .660$). This shows that a

teacher's self-efficacy in classroom management and instructional strategies are not significant predictors of intention to quit.

Table 17
Summary of Hierarchical Regression Analysis for Teacher Variables' Effect on Intention to Quit

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ClassMgt	-.239	-.265	-.112	-.007	.001	.003	-.073	-.057
	(.165)	(.169)	(.181)	(.156)	(.155)	(.157)	(.158)	(.168)
InstructStrat		.075	.182	.145	.134	.133	.058	.076
		(.183)	(.187)	(.157)	(.158)	(.158)	(.156)	(.161)
StuEngage			-.494**	-.13	-.108	-.098	-.069	-.095
			(.191)	(.172)	(.170)	(.175)	(.177)	(.188)
Commitment				-.722***	-.724***	-.728***	-.724***	-.711***
				(.092)	(.092)	(.093)	(.091)	(.094)
Female					-.192	-.196	-.324	-.366*
					(.189)	(.189)	(.204)	(.218)
White						.082	.109	.104
						(.217)	(.211)	(.213)
0-5 years (*Ref)*								
6-10 years							.778***	.751***
							(.211)	(.216)
11-15 years							.574**	.536**
							(.232)	(.240)
16-20 years							.476*	.484*
							(.247)	(.253)
21 years or							-.031	-.019
							(.276)	(.280)
PreK – 2 (*Ref)*								
Intermediate								-.196
								(.215)
Middle School								-.077
								(.234)
High School								-.192
								(.267)
Alternative								-.303
								(.787)
Constant	4.727***	4.467***	5.191***	6.222***	6.321***	6.227***	6.5***	6.583***
	(.631)	(.860)	(.805)	(.759)	(.784)	(.850)	(.835)	(.773)
F	2.11	1.24	3.54**	19.99***	15.78***	13.18***	11.44***	8.67***
R^2	.012	.013	.045	.275	.278	.279	.338	.342
ΔR^2		.001	.032	.229	.003	.001	.060	.004

*Note: N= 194. Robust Standard Errors are in parentheses, *** p<.01, ** p<.05, * p<.1.*

On the other hand, when teacher self-efficacy in student engagement was added for Model 3, the results revealed the model to be statistically significant ($R^2 = 0.045$, $p = .016$). The results in Table 17 suggest the added independent variable to be a significant predictor, which means for every additional unit of teacher self-efficacy in student engagement, the intention to quit score decreases by .494 units. The model also shows that adding teacher self-efficacy in student engagement accounted for a significant increase of 3% of the variation in teacher's intention to quit ($\Delta R^2 = 0.032$, $p = .012$).

Likewise, adding teacher commitment in Model 4 significantly increased the amount of variance in teacher intention to quit explained by the previous model ($\Delta R^2 = 0.229$, $p < .001$). The results in Table 17 show that when teacher commitment is added as an independent variable together with the three subscales of teacher self-efficacy, this model can explain 27.5% of the variation in teachers' intention to quit ($R^2 = 0.275$, $p < .001$). This significant increase highlights that teachers who have strong identification with the school, positive evaluation of the teaching, as well as professional satisfaction have lower intentions to leave their teaching positions. Specifically, one unit increase in a teacher's commitment decreases the intention to quit score by .722 units. The more committed teachers are, the less likely they intend to leave. Notice that teacher efficacy in student engagement is no longer a significant predictor ($p = .451$) in the model because much of its effect is now accounted for by teacher commitment.

Models 5 and 6 in Table 17 demonstrate that when controlling for gender and race and ethnicity (White vs. non-White), there were no statistically significant difference in the prediction of a teachers' intention to quit. This means that gender and race and ethnicity do not influence how self-efficacies of teachers and commitment predict their intent to leave their positions.

The next step included years of teaching experience for Model 7. The results showed the model to be statistically significant ($R^2 = 0.338$, $p < .001$). As presented in Table 17, the coefficients for the group of teachers with 6 to 10 years and 11 to 15 years of teaching experience appeared to be significant. This means that compared to teachers with less than five years of experience, having 6 to 10 years of teaching experience increases the intention to quit score by .78 units ($p < .001$) and having 11 to 15 years if teaching experience increases the intention to quit score by .57 units ($p = .014$). The model also shows that adding years of teaching experience accounted for a significant increase of 6% of the variation in teacher's intention to quit ($\Delta R^2 = 0.060$, $p = .003$).

Model 8 included the school setting as a control variable that takes into account whether the teachers teach in PreK-2, intermediate, middle school, high school, or alternative school setting. The results in Table 17 suggest that the school setting does not really influence the effect of teacher self-efficacy and commitment on intention to quit. Similarly, the increase in the variance in teacher intention to quit explained by the model was not statistically significant ($\Delta R^2 = 0.004$, $p = .902$). Nonetheless, Model 8 was still able to show a significant model ($R^2 = 0.342$, $p < .001$).

It is important to note that teacher commitment remained as a significant predictor beginning with Model 4 and on the subsequent models. Its impact on intention to quit did not fluctuate very much from model to model. The final model only accounted for 34% of the variance in the teachers' intention to quit. This means that the remaining 66% of the variation in intention to quit cannot be explained by the independent variables used in this study. These variables may include other teacher characteristics such as age, educational attainment, job satisfaction, stress, burnout, and persistence. School and organizational characteristics including

salary, school climate, student discipline, administrative support, or workload may also impact the teachers' intention to leave their positions.

Finally, additional analysis revealed teacher self-efficacy in student engagement as a significant predictor of teacher commitment ($R^2 = 0.215$, $p < .001$). For every additional unit of teacher self-efficacy in student engagement, commitment increases by .59 units. This means that as a teachers' confidence in engaging students increases, their commitment also increases. 3

CHAPTER 5

Discussion

This chapter begins with summarizing the findings of this study. Following this summary, conclusions, implications, and limitations of the major findings are discussed and recommendations for future research are presented.

Summary

The purpose of this study was to understand how teacher intention to leave, commitment, and self-efficacies in student engagement, instructional strategies, and classroom management relate to each other and find out if these indices would vary based on based on years of experience, gender, race or ethnicity, and school setting.

The results of this study showed that female teachers have higher self-efficacy in student engagement compared to male teachers. Non-white teachers feel more confident in their ability to engage their students than white teachers. It was determined that teachers with 6 to 10 years of teaching experience are more efficacious in instructional strategies and classroom management than those who are still in their first five years of teaching. However, teachers who have been teaching for 6 to 15 years showed higher intentions to quit than the new teachers. Teachers in the high school setting were also found to report greater teacher commitment than the teachers from the primary school setting.

Furthermore, it was found that self-efficacy, commitment, together with gender, race, years of experience and school setting explain a significant amount of variance in a teacher's intention to quit. However, only teacher commitment was a significant predictor of intention to

quit. Interestingly, compared to teachers with less teaching experiences, teachers who have been teaching for 6 to 15 years appeared to have higher intention to quit. Another noteworthy finding was the negative effect of self-efficacy beliefs in student engagement on intention to quit which became not significant when teacher commitment was added into the model. Self-efficacy in student engagement was found to have positive influence on teacher commitment.

Conclusions

Teacher Self-Efficacies and Teacher Characteristics. One of the focus of this study was to find out if teacher self-efficacy indices in student engagement, classroom management and instructional strategies as well as teacher commitment and intention to quit would vary based on years of experience, gender, race or ethnicity, and school setting. At the conclusion of the study, the results indicate that teacher self- efficacy in student engagement varies by gender and race. In addition to that, teachers with 6 to 10 years of teaching experience exhibited higher self-efficacy in instructional strategies and classroom management than those who are still in their first five years of teaching.

Female teachers and non-White teachers feel more efficacious in engaging and motivating students to learn compared to male teachers and White teachers respectively. Possible explanations are proposed. Female teachers reported to have closer relationships with students than male teachers (Spilt, Koomen, & Jak, 2012).Thinking that they are able to connect and create positive relationships with the students, female teachers may also believe that they could use that as a foundation to motivate and encourage the students to participate in the classroom learning activities. Feminine qualities identified by Rubin (1981) such as having good social skills and showing warmth and emotional support may also be attributed to how female teachers

encourage students to be engaged in the classroom. Moreover, non-White teachers may feel more confident in connecting and engaging their student with their learning than White teachers because almost 90% of the student population are registered as non-White as well. Because of the broad belief in the importance of race and ethnicity in student-teacher relationship, Non-white teachers potentially feel more efficacious in motivating the students as they see themselves as role models to demographically similar students (Egalite, Kisida, & Winters, 2015). This current finding provides preliminary data for examining race and ethnicity differences in teacher self-efficacy.

Contrary to previous research, the present study found that self-efficacy in classroom management did not vary when associated to gender (R. Klassen & Chiu, 2010; Shaukat & Iqbal, 2012). Perhaps the small number of male teachers which is only 19% of the participants in this study may have affected the results compared to 31% and 54% male participants from Klassen and Chiu (2010) and Shaukat and Iqbal (2012) respectively.

It was also determined that teachers with 6 to 10 years of teaching experience are more efficacious in instructional strategies and classroom management than those who are still in their first five years of teaching. These results are not unexpected as one would expect teachers with more experience to feel more confident in the teaching practices that they use to deliver instruction. They also reported more confidence in their abilities to employ instructional and assessment practices and to maintain order in their classrooms. This may be because novice teachers have not obtained as much additional on-the-job trainings or professional development needed to master or be successful in these areas. Mastery experiences are postulated as the most potent source of teacher's sense of self-efficacy (Bandura, 1997). Because novice teachers have

fewer mastery experiences or successful experiences of overcoming challenging situations that will allow them to develop their skills, this may explain why their self-efficacies tend to be lower compared to teachers with longer tenure. Moreover, more experienced teachers are likely to have more content-specific and pedagogical knowledge, different attitudes about their students, better sensitivity to classroom events, and think and behave differently in the classroom compared to less experienced teachers (Wolters & Daugherty, 2007). However, it is important to note that the findings of this study did not find any significant difference in the self- efficacies of novice teachers when compared to teachers who have at least 10 years of experience. Perhaps this is because of the non-linear and inverted U-shaped relationship between teacher self-efficacy and years of experience (Klassen & Chiu 2010). It is possible that teachers establish their self-efficacies after five years of teaching. Although Bandura (1997) argued that self-efficacy beliefs will remain stable once established, other teacher or school factors may influence it to decline resulting to no significant difference to their efficacies as novice teachers. Moreover, consistent with the findings of Wolters and Daugherty (2007), this study did not find any significant difference in the student engagement self-efficacy beliefs of the teachers when compared by years of experience.

Teacher Commitment and Teacher Characteristics. This study supports earlier findings indicating no significant gender effect on teacher's commitment (Riehl & Sipple, 1996). Similarly, consistent with the findings of Coladarci (1992) and Riehl and Sipple (1996), no significant relationship between teaching experience and teacher commitment has been observed in this study. However, this result is contradicting one of the explanations of Chan et al. (2008) when their study found the two teacher variables to be positively related. It was claimed that the discrepancy in the findings may be due to the difference in how teacher commitment was

operationalized as the two earlier studies focused more on career reselection or withdrawal compared to their operational definition of commitment placing greater emphasis on attitudes (Chan et al., 2008). This current study operationalized and measured teacher commitment consistent with Chan et al. (2008), yet the findings remained consistent with that of Coladarci (1992) and Riehl and Sipple (1996). The proposed explanation to this is the difference in the samples. This study utilized teacher samples in the United States just like Coladarci (1992) and Riehl and Sipple (1996), while Chan et al. (2008) based their findings on teacher samples in Singapore. Cultural values and practices explain the variance in commitment (Meyer et al., 2012). Collectivist societies like Singapore tend to have higher sense of obligation or feeling that one ought to remain with the organization than those from individualistic nations like the United States (Fischer & Mansell, 2009). Triandis (2001) described that people from collectivist cultures are likely to exhibit the subordination of their personal interests to the interest of the group they are in, while people from individualist societies pay more attention to internal goals and processes as determinants of their social behavior, relationships and situational attributions. Perhaps teachers with more experience in Singapore exhibit more of this sense of obligation to commit and stay in their positions as the number of years may have resulted to stronger attachment to the school goals compared to teachers from the United States who may have served in their teaching positions for a good number of years, yet still give priority to their personal goals over the school or school districts.

Teacher Self-Efficacy in Student Engagement, Commitment, and Intention to Quit. Previous studies have found teacher efficacy to be correlated to the likelihood that teachers will stay in the teaching profession (Burley, Hall, Villeme, & Brockmeier, 1991). Also, teacher self-efficacy has been found to be a significant predictor of teacher commitment (Chan et al., 2008;

Coladarci, 1992; Ebmeier, 2003). Not surprisingly, this study found that the teachers' intention to leave their current positions was directly influenced by their commitment. This result confirms previous studies (R. M. Klassen & Chiu, 2011) and extends the earlier findings in exploring the relationship of teacher efficacy, commitment, and teacher turnover as this study found the self-efficacy in student engagement as a predictor of commitment which then impacts intention to quit. When teachers' commitment and confidence in engaging students increase, they are less likely to leave their current positions.

Years of Experience and Intention to Quit. This study found that when controlling for years of experience, teachers with 6 to 15 years of experience have higher intention to quit compared to teachers who have only been teaching for at most five years. Even if the teachers with six to ten years of experience were found to have higher self-efficacy in instructional strategies and classroom management, their self-efficacy in student engagement and commitment are not significantly higher than novice teachers in this study. Moreover, after digging deeper, it was found that the influence of commitment on intention to quit is the strongest for teachers in their first five years of teaching and the weakest for teachers with at least 20 years of teaching experience. Hence, the commitment of less experienced teachers has a stronger tendency to combat intentions to quit compared to that of more experienced teachers. For more experienced teachers, commitment and intention to quit may fluctuate as a result of changes in the demands of work, in their professional capacities, as well as their ambitions. Huberman (1993) found that the peak years for burnout among teachers are between seven and 12 years of career or the mid-career years. This is believed to be the critical time where teachers are vulnerable to throw in the towel due to various reasons including individual fragility towards problematic pressures, problems with institutional conditions, problems of teaching, discrepancy between investment

and reward, overburdening, accumulation of tensions in life (Huberman, 1989, 1993). Teachers in their mid-career years undergo a period of reassessment, experimentation, and activism where they question their career choices (Huberman, 1989). On the other hand, teachers in their early years are still under the process of discovery and development of their sense of efficacies and identities as teachers as well as exerting efforts to sustain and stabilize these for survival (Day, 2013; Huberman, 1989). Novice teachers are not necessarily leavers of the profession but just movers to different schools (U.S. Department of Education, 2014).

Practical Implications

The deeper understanding of teacher self-efficacy obtained from this study, specifically in the dimension of student engagement, provides an area of focus in developing efficacy in the teacher preparation programs, in mentoring programs for new teachers, and in professional development for the more experienced teachers. This is to further strengthen their commitment to teaching and combat their intentions to quit. School and district administrators are encouraged to consider the findings of this study and find ways to help their teachers feel confident in fulfilling their duties, especially in engaging the increasingly diverse students to feel successful in school, feel committed to their jobs and to stay in their positions. How teachers perceive the importance school leaders attach to effective teaching was shown to be significant in predicting teacher efficacy and indirectly teacher commitment (Ebmeier, 2003). Teacher education programs must also spend time in developing teacher capacities for engaging the new generation of students who seem to interact more with technology than with family or peers, as well as the faculties for reflection and emotional understanding given that teaching is both an intellectual and emotional endeavor (Day, 2013).

Knowing that implementation intentions have the power to induce performance of the intended behavior (Ajzen, Czasch, & Flood, 2009), strengthening the resilience of the mid-career teachers and providing them support are critical to encourage and motivate them to stay in their positions. Designing and implementing professional development opportunities suitable to the needs of the teachers in different career stages may enhance their self-efficacies, increase commitment, and improve retention. Teachers have shared that when they are supported consistently, both personally outside and professionally inside their workplace, they develop resilience allowing them to cope with and positively manage adverse circumstances (Day, 2013).

Limitations

Despite the importance of the findings, it would be prudent to note that there were several limitations identified with regard to data collection and analysis that need to be addressed in future research.

The first limitation of this study is that it measured teacher self-efficacy based on self-reported beliefs. Self-report may not necessarily be accurate because it is only the assumption of human cognition. Hence, questions about the validity of the survey responses might arise. Another limitation is the sample size of the survey recipients. Higher number of responses is ideal for generalizability of results. Furthermore, the location of the participants being in a single Midwestern urban school district, may have also minimized the generalizability of the findings to other settings. These are limitations because those within urban or rural districts, those from varied ethnic backgrounds, or those outside of this geographic region, may respond differently to the survey questions.

Moreover, the results from Breusch-Pagan/Cook-Weisberg test which was conducted to check whether the error variances are equal or are multiplicative function of one or more

variables, showed a significant *p* value which meant that the error variance was heteroskedastic. Although the regression was conducted with robust standard errors to address the issue of non-constant error variance, this still needs to be pointed out as heteroskedasticity may bias the standard errors and test-statistics, as well as influence the uncertainty around the model fit.

Lastly, other teacher and school variables (e.g. educational attainment, job satisfaction, burnout, school climate, school leadership and support, salary, percentage of students with special needs, student disciplinary concerns etc.) which may explain additional variance in predicting teachers' intentions to quit were not investigated in this study.

Recommendations for Future Research

This study raises important questions for future research. Because the findings suggest a potential relationship between self-efficacy in student engagement, commitment, and intention to quit it is recommended to continue to probe, using both quantitative and qualitative data, how teachers perceive the importance of their ability to motivate students to learn in sustaining their commitment to teaching and in deciding to remain in their current positions. Qualitative data would also permit further investigation as to why the effect of commitment on intention to quit is stronger for new teachers than those with more years of experience. Similarly, the mediating power of teacher self-efficacy, especially in student engagement, and teacher commitment may also be explored in future studies focused on teacher retention.

It would also be beneficial for future study to use a clearer operationalization of intention to quit, which means differentiating intention to quit the teaching profession versus intention to quit the current position but would still move into another teaching position, especially in light of digging deeper into the research finding that mid-career teachers have higher intentions to quit compared to teacher with less than six years of experience.

Although the data gathered from this study were sufficient to support conclusions, a larger, more heterogeneous sample should also be considered, with urban, suburban, and rural districts from across the United States, and a wide variety of teacher composition, should be analyzed in future research to yield an even stronger evidence to support generalizations.

In summary, the results of this study contribute to an important story about teacher retention and the relationship that exist between teacher self-efficacy, commitment, and years of experience. This study found that an increase in a teacher's confidence in his or her ability to engage the students was associated with an increase in commitment. Additionally, female teachers and non-White teachers feel more efficacious in engaging and motivating students to learn compared to male teachers and White teachers respectively. It was also found that teachers with 6 to 10 years of teaching experience are more efficacious in instructional strategies and classroom management than those who are still in their first five years of teaching. The results of the study also join existing evidence of the effect of commitment to intention to leave. More fundamentally, the findings suggest that the strength of this relationship may vary with career stage.

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APPENDIX A

Teacher Beliefs Survey

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Your answers will only be used for this research project and your name and other personally identifiable information will not be reported or listed in my dissertation.

PART A: Please indicate your opinion about each of the questions below by marking any one of the five responses in the columns on the right side, ranging from **(1) "None at all" to (5) "A Great Deal**" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

	1 None at all	2 Very Little	3 Some Degree	4 Quite A Bit	5 A Great Deal
How much can you do to control disruptive behavior in the classroom?					
How much can you do to motivate students who show low interest in school work?					
How much can you do to calm a student who is disruptive or noisy?					
How much can you do to help your students value learning?					
To what extent can you craft good questions for your students?					
How much can you do to get children to follow classroom rules?					
How much can you do to get students to believe they can do well in school work?					
How well can you establish a classroom management system with each group of students?					
To what extent can you use a variety of assessment strategies?					
To what extent can you provide an alternative explanation or example when students are confused?					
How much can you assist families in helping their children do well in school?					
How well can you implement alternative teaching strategies in your classroom?					

Part B Please indicate your response below by marking one of the choices for each question.

What is your gender? O Male O Female O Other
What is your racial identity? O African American O White, Non-Hispanic O Other
What subject matter do you teach? (as many as apply) O All (Elementary/ Self-contained) O Math O Social Studies O Science O Language Arts O Other
What level do you teach? O Elementary O Middle O High
What is the context of your school? O Urban O Suburban O Rural
How would you describe the socio-economic status of the majority of students in your school? O affluent O comfortable O surviving paycheck-to-paycheck O struggling to meet basic financial needs
What grade level(s) do you teach? _____
How many years have you taught? _____ How many years have you been in your current position? _____

Part C: Please indicate your opinion about each of the questions below by marking any one of the five responses in the columns on the right side, ranging from
(1) "Strongly Disagree" to (5) "Strongly Agree" as each represents a degree on the continuum.

	1 Strongly Disagree	2	3	4	5 Strongly Agree
If an opportunity presents itself, at this time in my career, I would leave my current position.					
I have had thoughts of leaving my present job.					
Teaching is an excellent profession.					
I would leave teaching for another profession if I could.					
I enjoy my school work very much.					
This job gives me professional satisfaction.					

APPENDIX B

Teacher's Sense of Efficacy Scale (Short Form)

Teacher Beliefs

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

	None at all		Very Little		Some Degree		Quite A Bit		A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
2. How much can you do to motivate students who show low interest in school work?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
3. How much can you do to calm a student who is disruptive or noisy?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
4. How much can you do to help your students value learning?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
5. To what extent can you craft good questions for your students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
6. How much can you do to get children to follow classroom rules?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
7. How much can you do to get students to believe they can do well in school work?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
8. How well can you establish a classroom management system with each group of students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
9. To what extent can you use a variety of assessment strategies?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
10. To what extent can you provide an alternative explanation or example when students are confused?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
11. How much can you assist families in helping their children do well in school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
12. How well can you implement alternative teaching strategies in your classroom?	①	②	③	④	⑤	⑥	⑦	⑧	⑨

13. What is your gender?
- O Male
- O Female

14. What is your racial identity?
- O African American
- O White, Non-Hispanic
- O Other

15. What subject matter do you teach? (as many as apply)
- O All (Elementary/ Self-contained)
- O Math
- O Science
- O Language Arts
- O Social Studies

16. What level do you teach?
- O Elementary
- O Middle
- O High

17. What is the context of your school?
- O Urban
- O Suburban
- O Rural

18. What is the approximate proportion of students who receive free and reduced lunches at your school?
- O 0-20%
- O 21-40%
- O 41-60%
- O 61-80%
- O 81-100%

19. What grade level(s) do you teach? (K) ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

20. How many years have you taught? 0 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ / 0 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

For office use only. 0 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ / 0 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ / 0 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

APPENDIX B (continued)

Directions for Scoring the Teachers' Sense of Efficacy Scale[1]

Developers: Megan Tschannen-Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University.

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see:

> Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17,* 783-805.

Factor Analysis

As we have used factor analysis to test this instrument, we have consistently found three moderately correlated factors: *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*. At times, however, the make up of the scales may vary slightly. With preservice teachers we recommend that the full scale (either 24-item or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Short Form

Efficacy in Student Engagement:	Items 2, 4, 7, 11
Efficacy in Instructional Strategies:	Items 5, 9, 10, 12
Efficacy in Classroom Management:	Items 1, 3, 6, 8

Long Form

Efficacy in Student Engagement:	Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies:	Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management:	Items 3, 5, 8, 13, 15, 16, 19, 21

Reliabilities

In the study reported in Tschannen-Moran & Woolfolk Hoy (2001) above the following reliabilities were found**:**

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
TSES	7.1	.94	.94	7.1	.98	.90
Engagement	7.3	1.1	.87	7.2	1.2	.81
Instruction	7.3	1.1	.91	7.3	1.2	.86
Management	6.7	1.1	.90	6.7	1.2	.86

[1] Because this instrument was developed at the Ohio State University, it is sometimes referred to as the *Ohio State Teacher Efficacy Scale*. We prefer the name, *Teachers' Sense of Efficacy Scale*.

APPENDIX C

Informed Consent Statement

Teacher Self-Efficacy and Years of Experience: Their Relation to Teacher Commitment and Intention to Leave

INTRODUCTION

The Department of Educational Leadership and Policy Studies at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do withdraw from this study, it will not affect your relationship with this unit, the services it may provide to you, or the University of Kansas.

PURPOSE OF THE STUDY

We are conducting this study to better understand the extent to which teacher's efficacy beliefs and years of experience relate to commitment and retention.

PROCEDURES

You will be asked to answer a series of questions relating to your work as well as your beliefs. With your consent, the responses will be collected via online survey platform and saved in a spreadsheet. This will be accessible to the advisor and dissertation committee members through the University of Kansas. All data collected during this study will remain secure in a password protected cloud storage system until the completion of my dissertation. At the end of the academic year, the survey responses will be erased. Your responses will be available to you if you wish to obtain them.

RISKS

The survey is expected to take approximately 8 -12 minutes to complete. There are no other seen risks to this survey.

BENEFITS

Benefits of this research include better understanding how we can retain our teachers and keep them committed to the profession. In the area teacher efficacy, we may provide ideas for future professional learning opportunities. Considering the teacher retention problem, this is a relevant and timely issue in the Kansas City area as well as nationally.

PAYMENT TO PARTICIPANTS

Participation in this research is strictly voluntary. There is no financial gain from participating in this survey.

PARTICIPANT CONFIDENTIALITY AND INTERNET INFORMATION STATEMENT

Any and all information will not be associated with your name or the name of the school district. Your name will not be associated in any way with the research findings. It is possible,

however, with internet communications, that through intent or accident someone other than the intended recipient may see your response.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION
You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from the University of Kansas or to participate in any programs or events of the University of Kansas. However, if you refuse to sign, you cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION
The data in this study will be collected in the spring of 2020 school year. You have the right to cancel your permission to use and disclose information at any time by sending a written request to theresamariemiller@ku.edu If you cancel permission to use your information, the responses will be made available to you and then destroyed. However, information that was gathered prior to your cancellation may be in use.

PARTICIPANT CERTIFICATION:
I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email irb@ku.edu.

I agree to take part in this study as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_____ _____
Type/Print Participant's Name Date

_____
Participant's Signature

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