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In search of keeping good teachers: Mediators of teacher commitment to the profession

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Abstract

To better understand teacher retention, the thrust of the study was to investigate the relationships among principal support, teacher efficacy, collective efficacy and practicing teachers' commitment to the profession. This study was designed to test the mediating role of teacher and collective efficacy beliefs on teacher commitment facilitating three mediation models. Data come from 260 public school teachers in the Washington DC area, aged between 20 and 69, who completed three questionnaires through which a predictive and mediation model of teacher commitment was tested. Teacher efficacy and collective efficacy beliefs were hypothesized to mediate the relations between the principal support and teachers' commitment to teaching profession. Mediation regression modelling was used to test and validate these three models across the sample of K-12 teachers. Teacher collective efficacy beliefs were found to be partially mediated the relationship between principal support and teacher commitment to teaching profession whereas general teacher efficacy and personal teacher efficacy did not mediate the relationship between principal support and teachers' commitment to the profession of teaching. The measures in this study can be used to guide professional development and measure how successful attempts are to increase teacher commitment.

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Keywords: teacher commitment to the profession; teacher self-efficacy; collective efficacy; principal support

1. Introduction

Despite being the cornerstones of any education system, for varying reasons, a large number of teachers leave their job in the nation's K-12 schools. Indeed, keeping good teachers on the jobs has been a considerable challenge. Statistically speaking, the national attrition rate is approximately eight percent annually, and lamentably, about 2/3 of public school teachers quit before retirement, most due to lack of satisfaction in teaching (Carver-Thomas & Darling-Hammond, 2017). While the existing research has generally sought to explain the main reasons for teachers' departures, which generally include low teaching salaries, overall job dissatisfaction, limitations in feedback from administrators, lack of teachers' involvement in decisions, poor motivation (Ingersoll & Smith, 2003), different teaching

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assignments and inadequate recognition (Hebert & Worthy, 2001; NCES 2015), investigating the reasons why teachers would prefer to stay in the teaching profession, despite the existing problems, has been widely neglected.

In particular, there is scarcity of literature which focuses on both intrinsic and extrinsic factors that influence teachers' psychosocial functioning, investigating their decision of remaining in their profession. Thus, the present study utilizes the social cognitive theory (Bandura, 1997) to better understand and analyze teacher commitment to the profession in relation to teachers' perception of individual competency as well as their level as the intrinsic factors, and principal support as an extrinsic factor. (Figure 1).

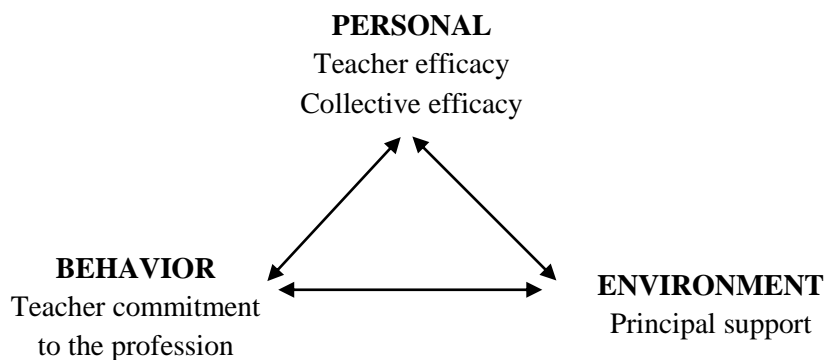


Figure 1. The application of the study in Bandura's model of causation

As opposed to modes of unidirectional causation, Bandura (1997) posits that human behavior encompasses a triadic reciprocity. In this model, internal or personal factors such as events that influence the individual cognitively or affectively become one of the determinants of individuals' behavior in addition to environmental factors. Previous research has provided support for collective teacher efficacy as a mediator of principal support and teacher commitment (Ross & Gray, 2006), teacher efficacy as a mediator in the relationship between principal support and teacher commitment to the profession (Ebmeier, 2003). In addition, in the literature, the associations between principal support to teacher commitment, collective efficacy to commitment, and teacher efficacy to commitment have been thoroughly taken into scrutiny (Caprara, Barbaranelli, Steca, & Malone, 2006; Ebmeier, 2003; Ross & Gray, 2006; Ware & Kitsantas, 2007). However, despite the wealth of studies on teacher commitment, the direct effect of principal support on teacher commitment to the profession, and the indirect effect of both collective and teacher efficacy in a model have not been investigated in prior studies. As more investigation is necessary to understand influences determining teachers' desire to stay longer in their profession and the influence of teachers' individual and collective beliefs in this process, it is the goal of this study to examine the relationships among the factors that influence teachers' commitment to the profession.

1.1. Literature review

Teacher commitment to teaching

Commitment, broadly defined is one's making a decision and keeping that one's state of mind permanently (Yukl, 2006). In the educational field, teacher commitment is a context-based construct which has three dimensions: organizational commitment, commitment to the teaching profession, and commitment to student learning (Dannetta, 2002). Organizational commitment is the degree to which one's involvement and desire to stay in the organization; commitment to the profession of teaching refers one's level of attachment to his/her job; and commitment to student learning points to the degree

to which teachers dedicate themselves for student learning (Coladarci, 1992; Dannetta, 2002; Kushman, 1992). More specifically, Somech and Bogler (2002) conceptualize this kind of commitment as individuals “devotion” for their occupation. This study focuses on teachers’ commitment to the profession of teaching.

Undoubtedly, teacher commitment is crucial for retaining teachers in the teaching profession (Fresko, Kfir, & Naser, 1997; Moolenaar et al., 2012; Singh & Billingsley, 1998). About three decades ago, Firestone and Pennell (1993) pointed that when teachers are committed to their profession that means they are intrinsically motivated to perform any task they are given. Those teachers are even more motivated when they are assigned to complete long standing tasks. It is not the level of task but it is the challenging aspect that brings out the highest level of commitment and intrinsic motivation in the individual (Deci & Ryan, 1985). It is clear then dedicated teachers are more willing to engage in a task because they drive strong intrinsic motivation from being involved.

Meanwhile, the preponderance of literature indicates that administrative support for teachers as needed has been proven to be the major factor in teachers’ high performance in their work settings (Firestone & Rosenblum, 1988). On most occasions, it is found that when teachers work in a collegial environment, they become highly satisfied working in that setting (Dinham & Scott, 2000), specifically because they perceive more support and, in turn, they become more committed to their profession (Moolenaar et al., 2012).

Principal support

In the school settings, it is the principal who decides the quality of information teacher receives, and thereby that influences how teachers perceive their principals leadership skills. As it is traditionally known that administrative lack of support can impede teachers’ confidence in self, so it can be argued that principal leaders must provide necessary information, support, encouragement for teachers to possess high perception of self-efficacy (Lortie, 1975). Since principal leadership is a broad concept (Leithwood & Jantzi, 2008), in this study principal leadership was operationalized as principal support, which captures the core values of transformational leadership style, such as fostering teacher commitment, facilitating instructional technologies, and providing individual support. Effective principals are able to manage a culture of mentoring (Meyers & Hitt 2017), and well-managed principal support leads increases satisfaction and retention levels for all teachers (Brown & Wynn, 2009; Roberson & Roberson, 2009; Burkhauser, 2016; Saleem, 2015).

In the study of Johnson and Birkeland 2003 study, teachers perceived their work environment as an essential motivation factor for job satisfaction and success. The teachers who asked for second placements expressed their intention to “feel like professionals... sharing ideas and resources with colleagues and receiving respect and guidance from the principal” (p. 21). From their previous experiences, working with dictatorship style administrators, they felt disrespected and controlled. Tye and O’Brien (2002) found similar reflections in their study, including the absence of strong administrative support when teachers encounter problems.

Teachers’ perception of administrative support has been found to be significant work environment condition affecting teacher job satisfaction (Johnson & Birkeland, 2003; Luekens, Lyter, & Fox, 2004; Petzko (2004) Tye & O’Brien, 2002). Principals who create continuous supportive environments for their teachers are more keen on their professional development, in turn, they work with teachers who are satisfied with their jobs (Brown and Wynn, 2009). Clearly, collaborative principal-teacher relationship, can create a safe work environment that involves feelings of satisfaction, trust, open communication, and collegiality.

It is clear that there is strong evidence in favour of a strong relationship between the influence of principal support and teacher commitment (Ebmeier, 2003; Ross & Gray, 2006; Ware & Kitsantas,

2007). Additionally, in the organizational context, supportive principal, especially the transformational leadership has found to be a very influential factor to effect teacher collective efficacy beliefs and teacher motivation (Knobloch & Whittington, 2002; Ross & Gray, 2006; Day, Gu, & Sammons, 2016; Goddard, Goddard, Kim, & Miller, 2015). However, in the literature there is little evidence on how the indirect effect of teachers' perception of self-efficacy and collective efficacy play an important role in relationship between principal support and teachers' commitment. Therefore, this study was designed to test the mediating role of teacher efficacy and collective efficacy on commitment to the profession.

Teacher Efficacy

Based on social cognitive theory, teacher efficacy, defined by Tschannen-Moran and Woolfolk Hoy (2001), is that the teachers' judgement of their own personal competence and is strongly related to commitment to teaching (Joffres & Haughey, 2001; Ware & Kitsantas, 2007), teachers' persistence or lack thereof in teaching (Milner & Hoy, 2003), and teacher burnout (Brouwers & Tomic, 2000). More recently, Skaalvik and Skaalvik (2010) explained teacher self-efficacy as teachers' personal beliefs about their abilities to organize their plans, thoughts and actions to reach educational attainments. Since teachers' beliefs in their efficacy affect their perceptions of educational process and their specific instruction, obtaining high sense of efficacy will positively influence teachers' behavior.

It bears emphasizing that while teachers with a high perception of self-efficacy beliefs seem to become inspired to work harder, (Allinder, 1994, Guskey & Pasaro, 1994), and tend to become staying teachers (Ware & Kitsantas, 2007), teachers with low sense of self- efficacy do not put too much effort when they face with challenging tasks (Tschannen-Moran & Hoy, 2007). Thus, it is mainly the principal who typically provides the formal leadership and whose behavior determines whether teachers see the school as a desirable place to work.

In terms of exploring teacher retention, teacher efficacy is commonly linked with teacher commitment, and teachers' desire to remain in teaching (Coladarci, 1992; Ware & Kitsantas, 2007). Hoy & Woolfolk (1993) stressed the value of teacher efficacy and investigated the issue of how to develop or support teacher efficacy. They asserted that teacher efficacy depends on clear communication with administrators and colleagues and principals are the prime officers who are in control of providing resources and coordinating the work. Thus, in return, develops teacher loyalty, trust and teacher commitment. A total of 179 randomly selected teachers in New Jersey's K-12 setting participated in this study and the researchers utilized a version of Teacher Efficacy Scale (TES) , adapted by Woolfolk & Hoy (1990) to measure the efficacy variables. The researchers found out that principal influence and strong academic emphasis were conducive to development of teachers' personal efficacy. Additionally, in cases when principals were perceived superior teachers sense of efficacy beliefs was positively influenced; the warm work environment may lead teachers feel less stressed.

Teacher Collective Efficacy Beliefs

With regard to identifying forms of human agency proposed by Bandura (1997, 2000, 2002), proxy and collective dimensions of human agency must be highlighted. As individuals cannot always control the environment they live in, it is very likely that they may need to rely on social organizations, which is referred proxy agency. Collective agency refers to individuals getting in groups and sharing their beliefs to achieve a certain goal. As school context was found to be an influential factor to affect teacher efficacy, collective efficacy as well as teacher efficacy became an emergent characteristic of schools, which may highly be effective in determining teachers' job satisfaction, in turn, teachers' desire to stay in the teaching profession.

From the very earlier years of his work, Bandura (1993, 1997) asserted that teachers' personal efficacy beliefs may influence their students' perception of their level of academic success; and when it comes to school level, teacher collective efficacy could influence to what level all the students in that school perform academically. The possible relationships of how teacher efficacy relates to other organizational factors such as collective efficacy (Henson, 2002; Pajares, 2002); teachers' organizational commitment and job satisfaction among teachers (Caprara, Barbaranelli, Borgogni & Petitta, 2003) have been consistently investigated.

1.2. Research questions

From the review of social cognitive theory and other related literature, three mediation models (figures 2, 3, and 4) were hypothesized to better understand teacher retention by examining practicing teachers' perceptions of self and collective efficacy (CE), principal support (PS) and teacher commitment to the profession (TCP). Traditionally, in the field of teacher efficacy, researchers aimed to measure efficacy as a two-component construct. Thus, teacher efficacy in this study was examined under two-factor structure, general teacher efficacy (GTE) and personal teacher efficacy (PTE). These two constructs can operate independently. GTE indicates the external factors, such as social and environmental, what teachers can do in general, and PTE focuses on the individual's perception of efficacy level, what teacher believe themselves to be capable of doing (Ashton & Webb, 1982, 1986; Hoy & Woolfolk, 1993; (Tschannen-Moran et al., 1998).

The following hypotheses frame this study:

Hypothesis 1: It is expected that significant relationships will emerge among principal support, general teacher efficacy, personal teacher efficacy, teacher collective efficacy beliefs and teacher commitment to teaching profession.

Hypothesis 2: It is expected that teacher collective efficacy beliefs will mediate the relationship between principal support and teacher commitment to teaching profession.

Hypothesis 3: It is expected that general teacher efficacy will mediate the relationship between principal support and teacher commitment to teaching profession.

Hypothesis 4: It is expected that personal teacher efficacy will mediate the relationship between principal support and teacher commitment to teaching profession.

The hypothesized models in this study were as follows:

In the first model, collective efficacy would mediate the principal support and teacher commitment to teaching profession. The principal support and collective efficacy would both be positively related to teacher commitment to teaching profession, and teacher collective efficacy, in turn, would partially mediate the relationship between principal support and teacher commitment to teaching profession (Figure 2).

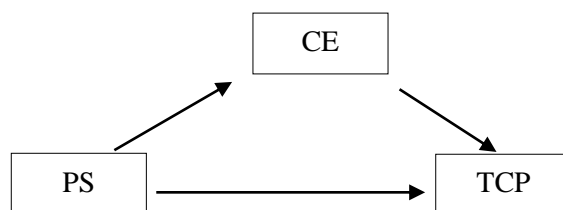


Figure 2. The first hypothesized mediation model for teachers' commitment to the profession

In the second model, general teacher efficacy would mediate the principal support and teacher commitment to teaching profession. The principal support and general teacher efficacy would both be positively related to teacher commitment to teaching profession, and general teacher efficacy, in turn, would partially mediate the relationship between the principal support and teacher commitment to teaching profession (Figure 3).

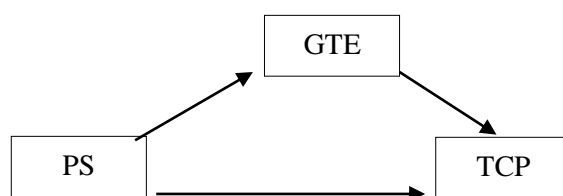


Figure 3. The second hypothesized mediation model for teachers' commitment to the profession

In the third model, it is proposed that personal teacher efficacy would mediate the principal support and teacher commitment to teaching profession. The principal support and personal teacher efficacy would both be positively related to teacher commitment to teaching profession, and personal teacher efficacy, in turn, would partially mediate the relationship between the principal support and teacher commitment to teaching profession (Figure 4).

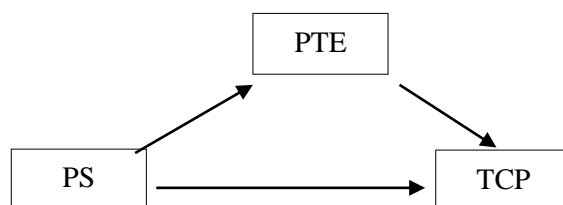


Figure 4. The third hypothesized mediation model for teachers' commitment to the profession

2. Method

2.1. Participants

A sample of 260 teachers from two Master's degree programs in a large public university in the Washington DC area was recruited for this study. Of the 260 respondents 173 (67%) were female, 87 (34%) were male. The percentage of female teachers was relatively high, and this is consistent with similar studies in the field of education (Hoy & Woolfolk, 1993). Out of 260 respondents, 207 (80%) were White, 27 (10%) were African American, 10 (4%) were Hispanic, 5 (2%) were Asian or Pacific

Islander, 2 (8%) were American Indian, and 9 (4%) individuals selected a unique label (e.g. Other Ethnicity) for their ethnicity.

The participants also were grouped on the basis of chronological age across five categories: 20-29 (38%), 30-39 (34%), 40-49 (21%), 50-59 (6%), 60 or greater 4 (2%). Out of five different age categories, three age groups were more evenly spread across, and the highest participant rate was among the 20-29 age category. The 60 or greater age category happened to be the smallest category. Additionally, participants entered categorical years of teaching experience across five categories: 77 (30%) with 5 or less years of experience, 93 (36%) with 6-10 years of experience, 51 (20%) with 11-15 years of experience, 23 (9%) with 16-20 years of experience, 16 (6%) with 21 or more years of experience. Participants' years of teaching experience was relatively evenly spread among three of five categories with the highest rate among the 6-10 years of experience, and lowest rate was among 16-20 years of experience.

Participation was voluntary and no compensation was proposed. All students were practicing teachers and enrolled in a Master's program; Program A and Program B. This non-random population was chosen for the study due to two significant reasons: 1) No other study in the existing educational inquiry has specifically examined the influence of Master's degree program on teachers' efficacy and collective efficacy in their relation to principal support and commitment to teaching profession, 2) Teachers seeking a Master's degree while working are assumed to be committed to their profession.

2.2. Instruments

Four survey instruments and a demographic survey of teacher characteristics were utilized in this study.

Teacher background questionnaire

Teacher background questionnaire includes participants' gender, age, race, years of experience, years of experience in the current school; and school setting, school grade level.

Teacher efficacy scale

Teachers' level of efficacy was determined in a questionnaire by the Teacher Efficacy Scale by Woolfolk and Hoy (1990), which was adapted from Gibson and Dembo (1984). The dimensions of efficacy measure were assessed with a scale consisted of five PTE and five GTE items. Each item was identified by a six-point Likert scale from "strongly agree" to "strongly disagree"; the higher the score, the more efficacious. A sample statement is "If I try really hard, I can get through to even the most difficult or unmotivated students." The coefficient alpha reliabilities were .77 for PTE and .72 for GTE. For this sample, Cronbach's alpha was .74 for PTE, and .75 for GTE. By performing a multitrait-multimethod analysis, Gibson and Dembo (1984) provided evidence of the validity of the scale (Hoy & Woolfolk, 1990)

Teacher collective efficacy scale

Teachers' perceived collective efficacy was measured by using the 12-item short form of the Collective Efficacy Scale (CES) developed by Goddard (2002), and that was originally based on Gibson and Dembo (1984) Teacher Efficacy Scale. Participants responded to each item on a 6-point Likert type scale anchored at 1 (strongly disagree) and 6 (strongly agree). A sample item from the scale is "Teachers in this school are able to get through to different students." Alpha coefficients of reliability are typically in the .90. The 12-item scale provided high internal consistency (alpha = .94). Results indicated that all of the items loaded strongly on a single factor and explained 57.89 percent of the item variation (Goddard 2002). The reliability coefficient for the study population was .84.

Principal leadership questionnaire

In this study, the principal leadership questionnaire (PLQ), developed from a study by Jantzi and Leithwood (2005), was used to measure the beliefs of teachers in regard to their principal leadership behaviors. PLQ includes 24 items on a four-point Likert scale (1 = strongly disagree and 4 = strongly agree).

Below are the six factors with their reliability coefficients identified and reported by Jantzi and Leithwood (2005):

1. Provides Vision (PV): A behavior describes a leader who creates opportunities for staff members and inspires them with his/her vision of future. This scale included five items (1-5) with a reliability coefficient (Cronbach's alpha) of .88. For this sample Cronbach's alpha was .91. A sample item is "The principal makes faculty members feel and act like leaders."

2. Models Behavior (MB): A behavior describes a leader who sets an example for staff members. This scale included three items (6-8) with a reliability coefficient (Cronbach's alpha) of .86. For this sample Cronbach's alpha was .90. A sample item is "The principal leads by doing rather than simply telling."

3. Fosters Commitment (FC): A behavior describes a leader promoting collaboration among staff members to reach common goals. This scale included five items (9-13) with a reliability coefficient (Cronbach's alpha) of .80. For this sample Cronbach's alpha was .90. A sample item is "The principal provides for our participation in the process of developing school goals."

4. Provides Individual Support (IS): A behavior describes a leader that shows concerns about their personal feelings and needs. This scale included five items (14-18) with a reliability coefficient (Cronbach's alpha) of .82. For this sample Cronbach's alpha was .90. A sample item is "The principal treats me as an individual with unique needs and expertise."

5. Provides Intellectual Stimulation (NS): A behavior describes a leader who challenges staff members to reexamine their work and how it is performed. This scale included three items (19-21) with a reliability coefficient (Cronbach's alpha) of .77. For this sample Cronbach's alpha was .87. A sample item is "The principal stimulates me to think about what I am doing for the school's students."

6. Holds High Performance Expectations (HE): A behavior describes a leader's expectations for excellence, quality, and high performance on the part of the staff. This scale included three items (22-24) with a reliability coefficient (Cronbach's alpha) of .73. For this sample Cronbach's alpha was .92. A sample item is "The principal will not settle for the second best in the performance of our work as a faculty." For this study the total score was used and reliability for the total score was .97.

Teacher commitment scale

The measure for teacher commitment was Ebmeier's (2003) Commitment to Teaching Scale by which was derived from the Diagnostic Assessment of School and Principal Effectiveness instrument (Ebmeier, 1990). Respondents were asked to indicate their commitment to the profession of teaching. The 8 item Likert scale is ranged from "completely disagree" to "completely agree." Sample items are "I am proud to be a teacher.", "If offered a better salary, I would move to another profession" (score reversed). Cronbach's alpha coefficient for this scale was .85, and it was .86 for the study sample.

2.3. Data collection procedures

Participants were asked to sign an informed consent form and complete the principal support, collective efficacy, teacher efficacy, teacher commitment measures, and the teacher background questionnaire. All

instruments were group administered during one class period and the length of surveys ranged from 20 to 25 minutes.

2.4. Data analysis

A descriptive research design was employed, in which teacher commitment to teaching profession and factors impacting teacher commitment were investigated through survey instruments.

In order for the first hypothesis to be analyzed, bivariate correlations were utilized among the study variables. For the rest of the hypotheses, regression analyses techniques were used to examine the direct and indirect effects among variables based on Baron and Kenny’s (1986) “mediation with regression analysis approach.” Regression based path analyses are, especially appropriate when investigating the given tenets of social cognitive theory (Cook & Campbell (1979). In addition, previous findings are such that hypothesized relationships in this study are consistent with previous empirical studies.

For the analysis of the hypothesized mediation models, the three step approach by Baron and Kenny (1996) was utilized. Several regression analyses were performed and significance of the coefficients was examined at each step. It is significant to note that only when all steps are met, then the data support the hypothesis (Kenny, 2008).

Below are the illustrations and the necessary procedure followed for each model:

First model

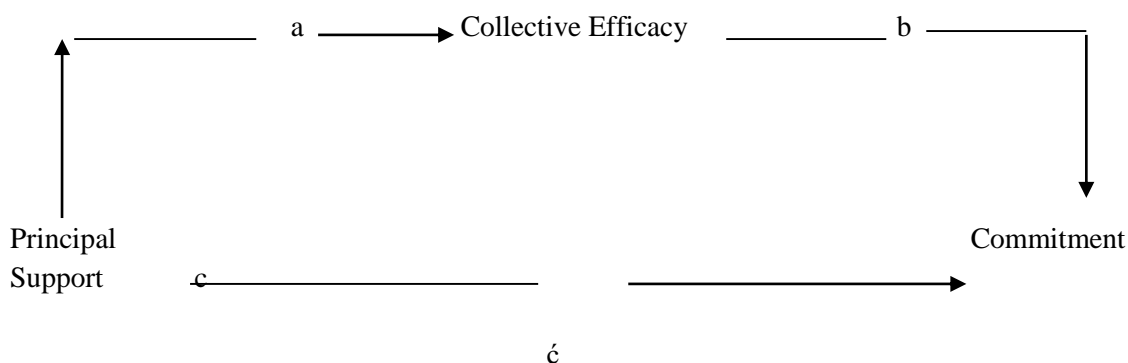


Figure 7. First model

Second model

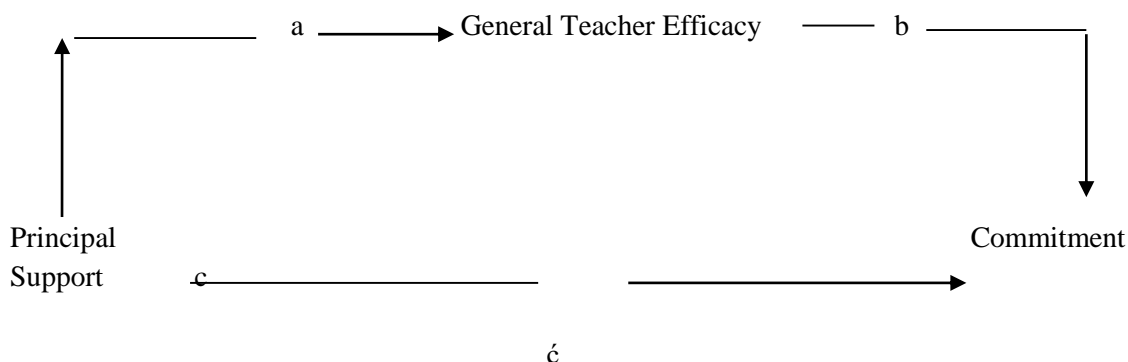


Figure 8. Second model

Third model

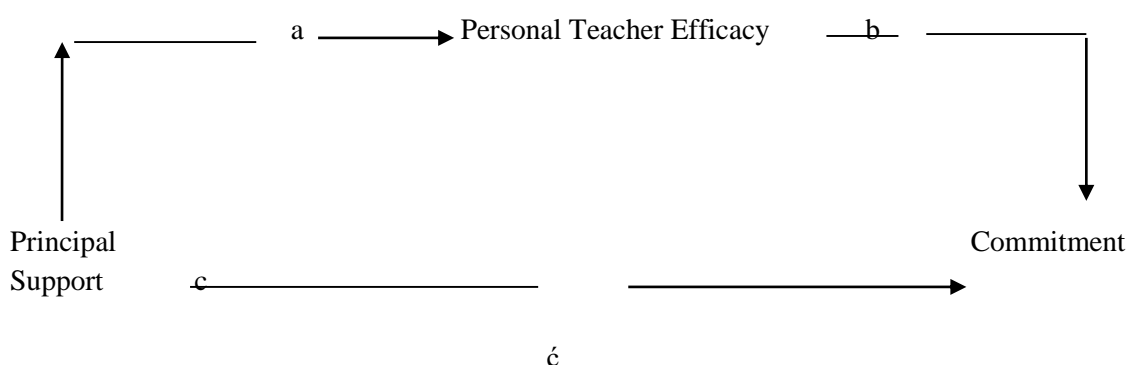


Figure 9. Third model

Analytical Procedures

The analyses were performed using SPSS 21.0. Prior to conducting any analyses, two steps were taken to ensure the data were clean and useable. In step one the data were examined for errors in coding. For example, all cells with missing data were cross-checked with individual surveys to be sure the data were actually missing. If the data were actually contained in the survey, empty cells were filled in with correct data. In step two, frequencies were run for each item in the data set and outliers were crosschecked with the surveys. Where possible, data which were entered incorrectly were re-entered. For example, since the possible responses on the self-efficacy scale ranged from 1-6, any numbers coded outside of that range were double checked and changed to accurately reflect the survey response. These two steps helped ensure that the results of the statistical procedures were not influenced by data that were entered incorrectly.

Next, correlations were used to analyze the relationships among the study variables. Then, a series of multiple regression analyses were used to analyze the study's hypothesized mediation models. Specifically, ordinary least squares (OLS) regression was used when the dependent variable was continuous. More specifically, Baron and Kenny's (1986) mediation model was employed. Since the theoretical framework of this study suggested that the impact of principal leadership on TCP would be both direct and indirect, it made sense to employ a mediational strategy. Baron and Kenny's particular model was used as the basis for the regression analysis in this research study because it is one of the most commonly used methods for testing mediation in the field of psychology (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002).

Baron and Kenny (1986) explained that a mediating variable accounts for the relationship between the independent and dependent variables. Their model, with paths a, b, c, and \hat{c} depicts the two causal paths that feed the independent variable (see Figure 5). Path c depicts the direct relationship between the independent variable and dependent variable, and paths a and b depict the relationship between the independent variable and mediator, and the mediator and the dependent variable, respectively. Path \hat{c} depicts the relationship between the independent variable and dependent variable when the influence of the mediator is simultaneously taken into account. Overall, their approach is to test all the "links" in the causal "chain" in order to test for mediation.

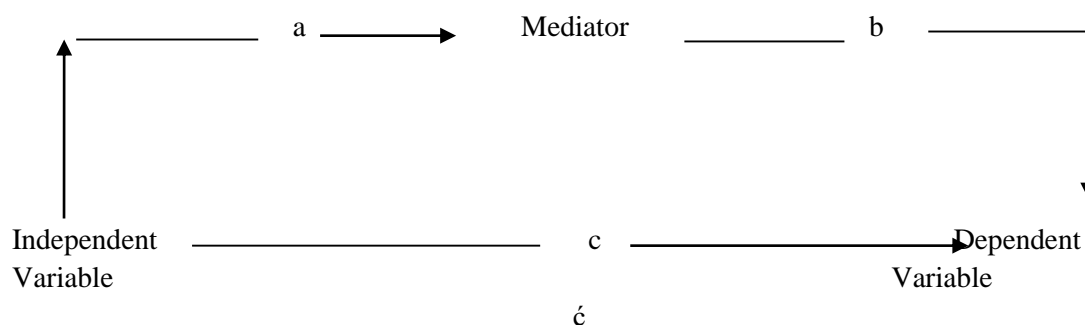


Figure 10. Baron and Kenny's (1986) mediation model

Baron and Kenny (1986) explained that the first step is to determine the relationship between the independent and dependent variable (path c). The second step is to show that the independent variable is related to the mediator (path a). The third step is to show that the mediator is related to the dependent variable (path b). Path b estimates the effect of the mediator on the dependent variable, controlling for the effects of independent variable. According to Baron and Kenny, mediation exists when paths a and b are statistically significant. Specifically, full mediation is indicated by a path \hat{c} which is no longer significant in the presence of the mediating variable (paths a and b), and partial mediation is indicated by a path \hat{c} which has less explanatory value in the presence of the mediating variable (paths a and b) than without it.

Analytic procedure to test hypothesis 1: Pearson's r correlations were used to assess the strength and direction of relationships among principal leadership, GTE, PTE, CE and TCP.

Analytic procedure to test hypothesis 2: Three regression analyses were conducted to determine whether collective efficacy mediated the relationship between principal leadership and TCP. First, TCP regressed onto principal leadership to test path c; second, CE regressed onto principal leadership to test path a; and third, TCP regressed onto CE to test path b and onto principal leadership to test path \hat{c} .

Analytic procedure to test hypothesis 3: Three regression analyses were conducted to determine whether GTE mediated the relationship between principal leadership and TCP. First, TCP regressed onto principal leadership to test path c; second, GTE regressed onto principal leadership to test path a; and third, TCP regressed onto GTE to test path b and onto principal leadership to test path \hat{c} .

Analytic procedure to test hypothesis 4: Three regression analyses were conducted to determine whether PTE mediated the relationship between principal leadership and TCP. First, TCP regressed onto principal leadership to test path c; second, PTE regressed onto principal leadership to test path a; and third, TCP regressed onto PTE to test path b and onto principal leadership to test path \hat{c} .

3. Results

The statistical analysis is presented by referring to each hypothesis. The dependent variable was TCP, and the independent variable is principal leadership, the two mediators were TCE and teacher efficacy.

Baron and Kenny's (1986) three-step regression procedures were utilized to test the hypothesized models. In order to test for mediated relationships Baron and Kenny's (1986) suggested three-step regression analysis is as in the following:

Step 1: Regress the dependent variable on the independent variable (test for path c)

Step 2: Regress the mediator on the independent variable (test for path a)

Step 3: Regress the dependent on both the independent variable and the mediator.

The following explanations are to provide additional clarity to the presentation of the results.

First, the phrase “variable X was a statistically significant predictor of variable Y” was used to mean “the coefficient on independent variable X was statistically significant at the .05 level or better in a regression in which Y was the dependent variable.

Preliminary Analyses

Prior to conducting descriptive and regression analyses, series of independent *t* tests were conducted to identify whether differences exist between two Master's programs, Program A and Program B.

In order to examine whether there is a difference between two groups, an independent *t* test was calculated for each variable in the hypothesized mediation models, CTP, PS, CE, GTE and PTE. Although years of teaching experience was not in the proposed model, a *t* test was performed due to its frequent reference to the variables in the model.

A total of six *t* tests were conducted. Results from the *t* test for group differences showed that there is no statistically significant difference between Program A and Program B in teachers' commitment to the profession, $t(258) = -1.80, p = .30$. Results from the *t* test for group differences showed that there is no statistically significant difference between Program A and Program B in CE, $t(258) = -.95, p = .66$. Results from the *t* test for group differences showed that there is statistically significant difference between Program A and Program B in principal leadership, $t(123) = 2.30, p = .82$. The mean of Program B is larger than Program A. This result is reported as one of the limitations of the study. Results from the *t* test for group differences showed that there is no statistically significant difference between Program A and Program B in GTE, $t(151) = -1.39, p = .17$. Results from the *t* test for group differences showed that there is no statistically significant difference between Program A and Program B in PTE, $t(258) = 52, p = .81$. Results from the *t* test for group differences showed that there is no statistically significant difference between Program A and Program B in years of teaching experience, $t(258) = 2.05, p = .94$. Of the six *t* tests, one was statistically significant at the .05 level. This is reported in the limitations of the study. Table 1 presents all the *t* test results.

Table 1. Means and Standard Deviations for Program A and Program B in All Variables

Variables	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Teacher's Commitment to the Profession					
Program A	73	4.14	.69	-1.80	.30
Program B	187	4.31	.65		
Collective Efficacy					
Program A	73	4.42	.80	-.945	.66
Program B	187	4.32	.75		

Principal Support					
Program A	73	2.77	.70	2.30	.02*
Program B	187	2.98	.65		
General Teacher Efficacy					
Program A	73	3.80	.86	-1.39	.17
Program B	187	3.98	.99		
Personal Teacher Efficacy					
Program A	73	4.94	.70	.520	.61
Program B	187	4.99	.69		
Teaching Experience					
Program A	73	2.03	1.26	1.94	.06
Program B	187	2.35	1.10		

* $p < .05$

In addition to *t* test analyses, missing data analyses were used to examine the missing data from all variables. No participants had a significant amount of data missing; thus, there was no need to delete any participants from further analyses.

Descriptive Analyses

Descriptive statistics were generated for each study variable. Means and standard deviations were calculated for all variables. (See Table 2).

Table 2. Means, Standard Deviations, and Reliabilities for Study Variables (N = 260)

Variables	Range	<i>M</i>	<i>SD</i>	Reliability (Cronbach’s alpha)
General teacher efficacy	1-6	3.85	.96	.75
Personal teacher efficacy	1-6	4.97	.70	.74
Collective efficacy	1-6	4.35	.76	.84
Principal support	1-4	2.92	.67	.97
Commitment to the profession	1-5	4.19	.68	.86

Additionally, to describe the sample of the participants in this study, descriptive statistics were calculated. Table 3 provides the frequency distribution for each profile and demographic characteristic of the 260 teachers, who responded to six-page survey instrument.

Table 3. Frequency and Percent of Participants by Demographic Characteristic (n = 260)

Demographics	Frequency	Percent
Gender		
Female	173	66.5
Male	87	33.5
Ethnicity		
American Indian	2	.8
Asian or Pacific Islander	5	1.9
Hispanic	10	3.8
White	207	79.6
African American	27	10.4
Other	9	3.5
Age		
20-29	99	38.1
30-39	88	33.8
40-49	54	20.8
50-59	15	5.8
60 and greater	4	1.5
School Level Taught		
Pre-school	8	3.1
Elementary	123	47.3
Middle School	55	21.2
High School	73	28.1
Years of Experience		
5 or less	77	29.6
6-10	93	35.8
11-15	51	19.6
16-20	23	8.8
21 or more	16	6.2
Years Working for the Principal		
3 or less	154	59.2
4-6	81	31.2
7-10	18	6.9
11-15	5	1.9
Setting of school building		
Urban	43	16.5
Suburban	196	75.4
Rural	18	6.9

Tests of Hypotheses

Analysis of Hypothesis 1

Hypothesis 1 stated that significant relationships would emerge among PS, GTE, PTE, CE and TCP. Pearson correlations were calculated among the study variables. Significant positive low to moderate

correlations were found between GTE and PTE, $r = .20, p < .001$, GTE and commitment to the profession, $r = .17, p < .001$; PTE and CE, $r = .21, p < .001$; PTE and commitment to the profession, $r = .22, p < .001$; collective efficacy and commitment to the profession, $r = .34, p < .001$; CE and principal leadership, $r = .34, p < .001$; commitment to the profession and principal leadership, $r = .38, p < .001$. Hypothesis 1 was partially supported. Positive significant relationships emerged among most of the variables. Table 4 reports correlations among all study variables.

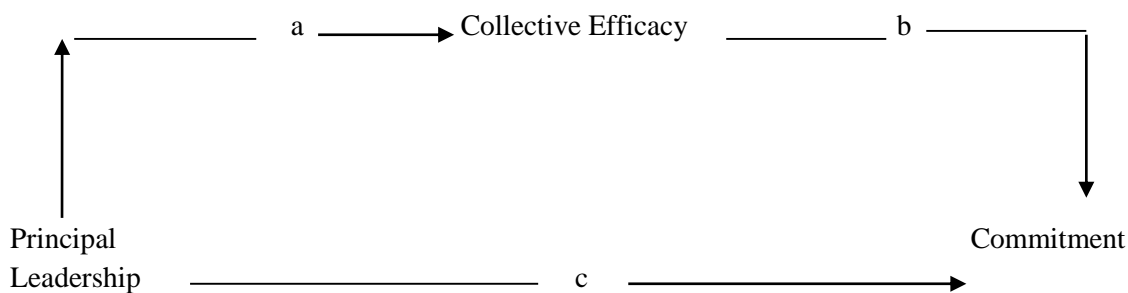
Table 4. Bivariate Correlations Among the Study Variables

Variables	1	2	3	4	5
1. General teacher efficacy	1.00				
2. Personal teacher efficacy	.20**	1.00			
3. Collective efficacy	.08	.21**	1.00		
4. Commitment to the profession	.17*	.22**	.34**	1.00	
5. Principal support	.10	.10	.34**	.38**	1.00

** Correlation is significant at the 0.01 level (2-tailed)

Analysis of Hypothesis 2

Hypothesis 2 stated that CE would mediate the relationship between PS and TCP. Table 5 summarizes the results of the regressions. The figure below illustrates the hypothesis of this study with CE as a mediator between principal leadership and TCP.



Results from three regression analyses revealed that data partially supported hypothesis 2. TCE partially mediated the relationship between PS and CTP. Principal support alone was a statistically significant predictor of teachers’ commitment to the profession, $F(1,258)=44.00, p < .01$, and accounted for 15% of the variance in teachers’ commitment to the profession (see Table 13). The data indicated that when participants felt supported by the principal, they had higher level of commitment to the profession.

The second regression analysis revealed that principal leadership was also a statistically significant predictor of TCE, $F(1,258)=33.92, p < .01$, and accounted for 12% of the variance in TCE (see Table 13). The results suggest that when participants had high principal support, they had higher TCE.

Regression results indicated when TCE and principal leadership were jointly entered to predict teachers' commitment to the profession, both variables were statistically significant predictors of commitment, $F(2, 257) = 31.10, p < .01$. Further, $R^2 = .20$ indicates that 20% of variance in commitment is explained by TCE and principal leadership (see Table 5). Examinations of beta weights indicated that both TCE and PS uniquely contributed to the prediction of teachers' commitment to the profession. These results suggest that participants who have high TCE and principal support are more likely to be committed to the profession.

To test hypothesis 2, a three-step regression approach was used, all three conditions for mediation were satisfied. Hypothesis 2 was partially supported. In order to examine whether the amount of mediation (i.e, the indirect effect: reduction of TCE on teachers' commitment to the profession) was statistically significant, the Sobel Test (Sobel, 1982) was performed. The results indicated that the magnitude of the indirect effect is not statistically significant, $Z_{Sobel} = .117, Z < 1.96$

Table 5. Summary of 3 Regression Analyses for Hypothesis 1 (N= 260)

Regression	Path Tested	<i>F</i>	df	<i>B</i>	<i>R</i> ²
1	Path c	44.00**	(1, 258)	.38**	.15
2	Path a	33.92**	(1, 258)	.34**	.12
3	Path b	31.10**	(2, 257)	.24**	.20
	Path c'			.30**	

* $p < .05$ ** $p < .01$

The figure following the tables shows path coefficients among the variables.

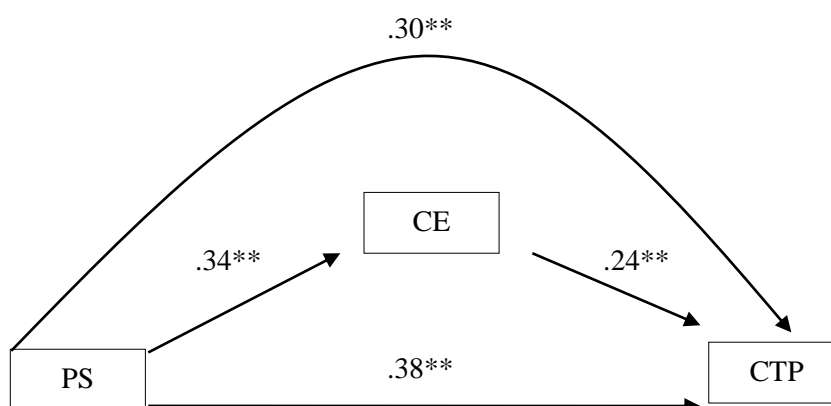
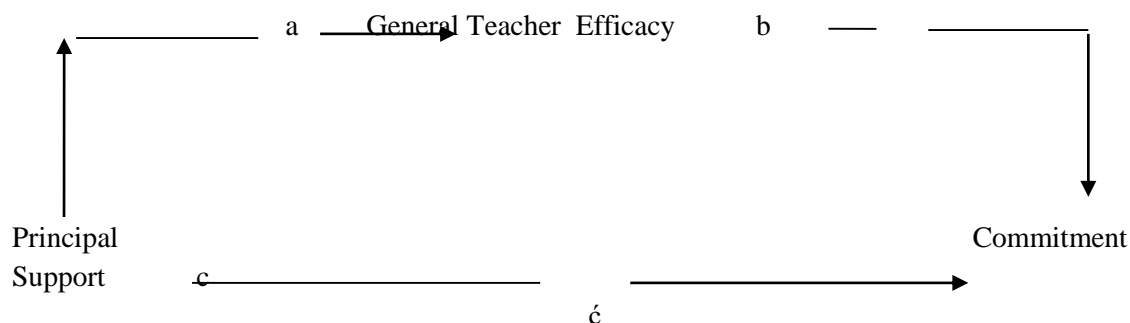


Figure 11. Diagram of collective efficacy as a mediator in the relationship between principal support and commitment to the profession. * $p < .05$ ** $p < .01$

Analysis of Hypothesis 3

Hypothesis 3 stated that GTE would mediate the relationship between PS and TCP. The figure below illustrates the hypothesis of this study with general teacher efficacy as a mediator between principal support and commitment to the profession.



Overall, hypothesis 3 was not supported. Principal support alone, just as in hypothesis 2, was a statistically significant predictor of teachers’ commitment to the profession, $F(1,258)=44.00, p <.01$, and accounted for 15% of the variance in teachers’ commitment to the profession. (See Table 5). The more highly supportive participants perceived principal support to be, the higher was their commitment to the profession.

According to the second regression results, principal support was not a statistically significant predictor for GTE, $F(1,258)=2.68, p =.10$; therefore, the second condition for mediation was not satisfied. Despite the fact that the first step in hypothesis testing was met, the second step was not met. When there is a case as such the hypothesis testing must be terminated (Baron & Kenny, 1996). There was no mediation in the second model, general teacher efficacy did not mediate principal leadership and TCP. Table 6 summarizes the results of the regressions.

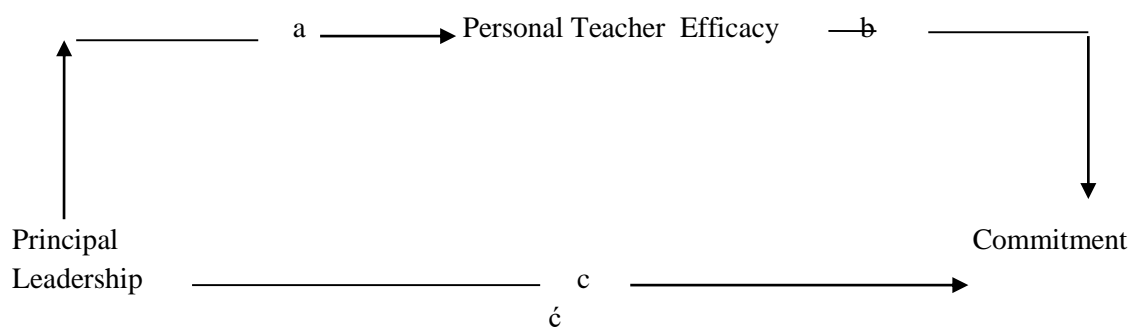
Table 6. Summary of Regression Analyses for Hypothesis 2 (N= 260)

Regression	Path Tested	F	df	β	R ²
1	Path c	44.00**	(1, 258)	.38**	.15
2	Path a	2.68	(1, 258)	.10	.01

* $p <.05$ ** $p <.01$

Analysis of Hypothesis 4

Hypothesis 4 stated that personal teacher efficacy would mediate the relationship between PS and TCP. The figure below illustrates the hypothesis of this study with personal teacher efficacy as a mediator between principal support and commitment to the profession.



Overall, hypothesis 4 was not supported. As in Hypothesis 2 and 3, principal support alone, was a statistically significant predictor of teachers' commitment to the profession, $F(1,258)=44.00$, $p < .01$, and accounted for 15% of the variance in teachers' commitment to the profession. (See Table 5).

According to the second regression results, principal leadership was not a statistically significant predictor for PTE, $F(1,258)=2.87$, $p = .09$; therefore, the second condition for mediation was not satisfied. Just as in Hypothesis 2, the first step for hypothesis testing was met, but not the second one. Thus, the hypothesis testing was terminated as supported by the work of Baron and Kenny (1996). Just as in the second model, there was no mediation in the third model. PTE did not mediate PS and TCP. Table 7 summarizes the results of the regressions.

Table 7. Summary of Regression Analyses for Hypothesis 3 (N= 260)

Regression	Path Tested	F	df	β	R^2
1	Path c	44.00**	(1, 258)	.38**	.15
2	Path a	2.87	(1, 258)	.11	.01

* $p < .05$ ** $p < .01$

4. Discussion

Hypothesis 1:

Hypothesis 1 was partially supported as positive significant correlations were found among most of the study variables. According to the results of bivariate correlation analyses, there were low to moderate correlations between GTE and PTE, GTE and commitment to the profession, PTE and TCE, PTE and commitment to the profession, TCE and commitment to the profession; TCE and PS; commitment to the profession and principal support.

The findings in this study suggest that both GTE and PTE were associated with TCP. This result is consistent with previous research (Coladarci, 1992; Hongyun et al. (2005); Hoy & Woolfolk, 1990; Weiss, 1999). Hoy & Woolfolk (1990) reported that teachers with high personal efficacy have the ability to teach all students. Hongyun et al. found that teachers' self efficacy significantly predicted teachers'

work devotion and job satisfaction. The moderate correlation with TCP suggests that teachers in this study would be less likely to leave the profession.

It is also significant to note that the association between PTE and TCE in this study was low and significant. Clearly, teachers who have high personal efficacy beliefs do not necessarily see themselves working in a collectively efficacious environment. Teachers in this study who highly believe that they can teach all students even the most unmotivated ones do not necessarily seek community or collegial support. This finding is not consistent with previous research (Henson, 2002; Tschannen-Moran et al. 1998), but it is important to demonstrate that teachers in this study had high PTE beliefs.

Another crucial finding to discuss is that teacher efficacy and principal support did not correlate significantly in this study. There was no significant association between teachers' senses of general and PTE and PS. This finding is also inconsistent with previous research (Chester & Beaudin 1996; Ebmeier, 2003; Weiss, 1999) which demonstrated the influence of supportive principal behavior on teacher efficacy.

Hypothesis 2:

Hypothesis 2 was partially supported; TCE partially mediated the relationship between PS and TCP. In order to test this hypothesis, the Baron and Kenny (1986) three-step regression model was applied, and three regression analyses were utilized. In the first regression, commitment to the profession was regressed on principal support. The analysis revealed that principal leadership was a strong predictor of TCP. The first condition of mediation testing was confirmed. The second step of the regression analysis revealed that principal leadership was a strong predictor of the mediator in the model, which is TCE. The second condition of mediation testing was also confirmed. In the last regression, both principal leadership and the mediator, TCE entered in order to predict teachers' commitment to the profession. The last regression analysis revealed that TCE and principal leadership were statistically significant predictors of TCP, and TCE partially mediated the relationship between principal support and teachers' commitment to the profession. Because all three conditions were met, the data supported the first hypothesis.

Results from the set of regression analyzing hypothesis 2 were as hypothesized and aligned with both social cognitive theory predictions and empirical results of previous research (Mawhinney et al. 2005; NCES, 2005; Ross & Gray, 2006). Teachers with supportive principal leadership and high perceptions of TCE expressed higher commitment to the profession. Teachers with supportive principal also had high level of TCE; in other words, the more supportive principal leadership teachers perceived, the more likely they have high TCE.

To clarify the mediation component of this hypothesis, it is important to note that there was a partial mediation in this model. Principal support influenced commitment uniquely, but also in combination with TCE. The explanatory value of principal leadership on teachers' commitment to the profession slightly decreased in the presence of TCE (from .38 to .30). So, part of the influence of principal leadership on TCE was actually captured by the relationship of principal leadership to CE and of teachers' commitment to the profession.

Another note is that the standardized coefficients in the third regression which included both principal leadership and CE to predict teachers' commitment to the profession indicated that, while they were both significant, the relative importance of principal leadership was greater than that of TCE. A one standard deviation change in TCE would result in a 0.24 standard deviation change in teachers' commitment to the profession, but a one standard change in principal leadership would result in a 0.30 standard deviation in teachers' commitment to the profession. In other words, change in principal leadership would have a greater impact on TCP than TCE.

The conclusion that principal leadership is of greater relative importance to teachers' commitment to the profession is also consistent with theory and previous research (Ebmeier, 2003; Ross & Gray, 2006;

Ware & Kitsantas, 2007; Weiss, 1999). Thus, this study suggests that supportive environment with the focus on team building collaborative work opportunities nurtures teachers and influence their commitment to the profession.

Hypothesis 3:

Hypothesis 3 was not supported; GTE did not mediate relationship between PS and TCP. Two regression analyses were conducted utilizing Baron and Kenny's (1986) mediational hypotheses testing method. TCP was regressed on principal leadership. As in the second hypothesis, the first regression analysis revealed that principal support was a strong predictor of TCP. Testing mediation was continued since the first condition was met. In the second regression, GTE was not a statistically significant factor of principal leadership. Further analyses could not be conducted because the regression analysis in the second step did not meet the condition (Baron & Kenny, 1986). Therefore, the conclusion for the second hypothesis was that the model for explaining teachers' commitment to the profession did not perform as hypothesized. GTE did not uniquely predict teachers' commitment to the profession; GTE did not mediate the relationship between principal leadership and teachers' commitment to the profession. The participants in this study did not perceive GTE differently enough to inform a relationship between principal leadership and teachers' commitment to the profession.

The results relating to hypothesis 3 are not consistent with the results of previous empirical research (Coladarci, 1992; Ebmeier, 2003; Tucker, 2003). One explanation for this inconsistent result could be related to the structure of the study. No studies previously examined the relationship of principal leadership and TCP through the impact of GTE. Second, no other studies had participants who were both practitioners and Master's students at the same time.

Hypothesis 4:

Hypothesis 4 was not supported; PTE did not mediate relationship between principal support and TCP. In order to respond to hypothesis three, two regression analyses were utilized following Baron and Kenny's (1986) mediation testing method. The first step of the regression analysis revealed that principal leadership was a strong predictor of TCP. In the second regression analysis, PTE was not a statistically significant factor of principal leadership. Further analyses couldn't be done because the regression analysis in the second step did not meet the condition (Baron & Kenny, 1986). Therefore, the conclusion for the second hypothesis was that the model for explaining teachers' commitment to the profession did not perform as hypothesized. PTE did not uniquely predict teachers' commitment to the profession; PTE did not mediate the relationship between principal leadership and teachers' commitment to the profession. The participants in this study did not perceive PTE differently enough to inform a relationship between principal leadership and teachers' commitment.

The results relating to hypothesis 4 are not consistent with the previous teacher literature where there was a strong relationship between teacher efficacy and principal influence, and administrative support for enhancing teachers' commitment to teaching (Firestone & Rosenblum, 1988; Fuller et al. 1982; Moore 2005). This inconsistency may be explained in two ways. One is that no studies previously examined the relationship of principal leadership and TCP through the impact of PTE. Second, no other studies had participants who were both practitioners and Master's students at the same time, which makes this study hard to compare with earlier studies.

It is worth discussing the results of hypotheses 3 and 4 more elaborately as the results came out insignificant. Previous studies such as Hoy et al. (1992) and Hoy and Woolfolk (1993) about principal leadership and teacher efficacy confirmed Bandura's causation model. Hoy et al. (1992) found that while supportive principal behaviour could influence individual teacher effectiveness, it could also increase collegiality among teachers. Hoy and Woolfolk (1993) conducted a study to investigate how their perceptions of efficacy beliefs are influenced by the school climate, which refers to a set of relationships

among their students, coworkers, administrators. One of the major highlights of this study was the significant role of principals in the school system. The authors concluded that a supportive environment that is created by the school leaders should reinforce teachers' efficacy beliefs.

However, the results of the data analysis in this study indicated just the opposite. Both in hypothesis 3 and 4, while principal leadership had an influence on teachers' commitment to the profession, principal leadership did not come out a predictor of teachers' either GTE or PTE. Based on Bandura's (1986) reciprocal effect, the development of strong self-efficacy beliefs among teachers depend on exemplary principal leadership characteristics. What, then, might have produced these new results?

Explanation 1: Participants in this study demonstrated above average GTE and PTE scores in their scales compared to the norms. The correlational analyses for the study variables also showed no significant relationship between teacher efficacy and principal leadership. The reason for this may be the difficulty in assessing the interaction of principal support with other elements that impact teacher efficacy (Smylie, 1990). Obviously many factors contribute to teacher efficacy. Hoy and Woolfolk (1993) found that teachers who went to graduate school for further development were more likely to have high PTE, such as the teachers in the present study. In conclusion, the educational level as a personal variable may interact the results of the last two hypotheses of this study.

Explanation 2: A second explanation may be factors that were not included in the hypothesized model in this study such as earlier experiences with administrators, student success, and students' self-efficacy beliefs that could positively contribute to teachers' the teachers' self-efficacy beliefs. Ashton and Webb (1986) asserted that teachers of high achieving students would have a strong sense of self efficacy belief without recognizing the impact of current leadership. For this reason, teachers who have been influenced by other factors that were not included in the last two models of this study would possess strong teacher efficacy, and also they did not perceive the supportive principalship behavior as an attributing factor to their self-efficacy beliefs in their case.

Explanation 3: The data of this study were gathered from teachers who enrolled two separate Master's degree programs. It is also important to recall that the data showed significant differences between two Master's programs in principal leadership (see Table 1). Teachers in Program B, which prepares teachers for leadership and management positions in school settings, were significantly different from those teachers in Program A in their perceptions of principal leadership. Teachers in one group might have different expectations from their leaders than they are getting, in turn; the interactions among variables would be different.

As a conclusion of this investigation, it is important to state that the relationship between principal leadership and TCE points to TCP. As stated in the previous research, teacher "staying" was strongly connected to supportive principal behavior on the perceived TCE (Hoy, Tarter & Bliss, 1990; Knobloch & Whittington, 2002; Ross & Gray, 2006). The leadership role of the principal in these circumstances emphasizes supportive behavior and approachable manner. Thus, teachers must feel free to use their professional judgment, collaborate and receive guidance from the principal (Johnson & Birkeland, 2003). In creating such a collaborative work environment, the role of a principal is a vital as they could build trusting relationships, and influence teachers' decision to remain in teaching (Rose & Gray, 2006). A review of model 1 in this study reveals the linkage that supports this line of thinking.

5. Implications of the study

Keeping teachers in the profession is a challenge for the education system. For those who stay, their reasons may be varied and it is worth further examination. For this study an environmental factor, the principal support, and two personal factors CE and teacher efficacy were chosen to be examined in the hypothesized models, because they were driven from Bandura's social cognitive framework.

The first model provided the conclusion that teachers' desire to remain in the profession occurs when teachers feel there is a collegial relationship among teachers and when they have supportive principal leadership. A sense of collective efficacy explains teachers' work devotion and the satisfaction of collegial relationships (Hongyun et al., 2005). The data from the first model suggest that one reason teachers leave the profession is because of the lack of principal support and weak collegial relationships among teachers. According to Bandura (1997), efficacy beliefs develop as a result of many sources, one of which is personal performance accomplishments. When teachers are supported for their accomplishments individually and collectively, this can lead to enhanced interest in continuing in the profession.

Some practical applications of this finding can be examined at principals. Principals should create nurturing school environments where teachers use their professional judgments and share their instructional practices among each other toward creating a sense of collective efficacy. Principals can facilitate the schools setting by focusing on team building strategies. With the goal to create success for all students, principals should emphasize the school as a supportive body. For instance, they could lead a mentoring system for beginning teachers; create ongoing learning and leadership challenges for all teachers.

To elaborate more on this, a series of staff development seminars and related research projects proposed by the principals could enhance teachers' collective efficacy. In addition, school administrators could create opportunities observing others as a model. For example, regular visits to well-performed schools and well-taught model classes others as well. As a result, teachers who are satisfied with student learning and achievement, and collaborative work among the faculty and school administrators would highly likely stay in the profession. Teachers may feel committed when everyone in the system working collaboratively for their students' success.

The second and third model of this study concluded neither GTE nor PTE has an impact on teacher attrition when principal leadership is accounted for with this population. Given that the teachers in this study scored above average on the self-efficacy scale, and are in a Master's degree program, this result should come without surprise. Additionally, being willing to invest the money and time to earn a Master's is a sign of commitment in the profession.

Overall, most importantly, committed teachers may have the potential to stay in the profession and continue influence student achievement. As in any profession, teachers would want a fulfilling job. Once they feel highly satisfied with their jobs and meet the needs of all children in their classrooms, they may not want to leave the profession. Those committed teachers who continuously are supported by the colleagues and administrators may experience the fulfilment of their professional work in result of reaching every student.

6. Ethics Committee Approval

The author(s) confirm(s) that the study does not need ethics committee approval according to the research integrity rules in their country (Date of Confirmation: 21.01.2021).

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İyi öğretmenleri tutmak için: Mesleğe adanmış öğretmenler

Özet

Öğretmen tutmayı daha iyi anlamak için çalışmanın amacı, müdür desteği, öğretmen yeterliği, kolektif yeterlik ve öğretmenlerin mesleğe bağlılığını uygulama arasındaki ilişkileri araştırmaktır. Bu çalışma, üç aracılık modelini kolaylaştıran öğretmen adanmışlığı üzerinde öğretmenin aracı rolünü ve kolektif yeterlik inançlarını test etmek için tasarlanmıştır. Veriler, öğretmen adanmışlığının tahmin ve arabuluculuk modelinin test edildiği üç anketi tamamlayan, Washington DC bölgesindeki 20 ila 69 yaşları arasındaki 260 devlet okulu öğretmeninden gelmektedir. Okul müdürü desteği ile öğretmenlerin öğretmenlik mesleğine bağlılığı arasındaki ilişkiye aracılık etmek için öğretmen yeterliği ve kolektif yeterlik inançları varsayılmıştır. Arabuluculuk regresyon modeli, K-12 öğretmenlerinin örnekleminde bu üç modeli test etmek ve doğrulamak için kullanılmıştır. Öğretmen kolektif yeterlik inançlarının, müdür desteği ile öğretmenin öğretmenlik mesleğine bağlılığı arasındaki ilişkiye kısmen aracılık ettiği, genel öğretmen yeterliği ve kişisel öğretmen yeterliği okul müdürü desteği ile öğretmenlerin öğretmenlik mesleğine bağlılığı arasındaki ilişkiye aracılık etmediği bulunmuştur. Bu çalışmadaki ölçüler, mesleki gelişimi yönlendirmek ve öğretmen adanmışlığını artırmaya yönelik girişimlerin ne kadar başarılı olduğunu ölçmek için kullanılabilir.

Anahtar sözcükler: mesleğe adanmış öğretmen; öğretmen öz yeterliği; kolektif etkinlik; müdür desteği

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