

# Exploring the Role of Student Teachers' Self-Efficacy Beliefs and Teacher-Student Relationship Quality in Students' School Adjustment Competencies

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## Abstract

**Introduction.** The goal of this study was to examine the relationship between teacher-student relationship quality, student teacher's self-efficacy belief, and students' behavioral and academic orientations. In this way, the current research might be helpful to understand and document the direct and indirect impacts of teacher self-efficacy beliefs on the linkage between the quality of teacher-student relationship and students' school adjustment.

**Method.** The sample for this research project comprised primary and elementary grade classrooms and their student teachers, who are enrolled in teacher education programs at a large university in the Southwestern region of the United States. Eighty-seven student teachers (81 female, 6 male) reported on their perceived relationships with 258 primary and elementary students (168 Female, 90 male).

**Results.** As hypothesized, children with high ratings on relational conflict with teachers were also perceived as more behaviorally deviant and less competent socially and academically. The reverse trend was identified for children with high ratings on relational closeness and dependency.

**Discussion or Conclusion.** In addition, the current study showed that teachers with higher self – efficacy beliefs are more likely to build closer and warmer relationships with their students because they had more confidence in their capacity and skills to employment of effective classroom management skills and ability to enhance students' engagement.

**Keywords:** academic competency, behavior problems, teacher self-efficacy, teacher – student relationship, social skills

## Resumen

**Introducción.** El objetivo de esta investigación fue examinar la relación entre la calidad de la relación profesor-estudiante, la creencia en la autoeficacia del profesorado y las orientaciones académicas y de comportamiento del estudiantado. De esta manera, la investigación actual podría ser útil para comprender y documentar los impactos directos e indirectos de las creencias de autoeficacia del profesorado sobre el vínculo entre la calidad de la relación profesor-estudiante y el ajuste escolar del estudiantado.

**Método.** La muestra para este proyecto de investigación comprendió aulas de primaria y su profesorado, que están inscritos en programas de formación docente en una universidad grande en la Región Suroeste de los Estados Unidos. Ochenta y siete profesores (81 mujeres, 6 hombres) informaron sobre sus relaciones percibidas con 258 estudiantes de primaria (168 mujeres, 90 hombres).

**Resultados.** Según la hipótesis, las niñas y los niños con calificaciones altas en conflicto relacional con el profesorado, también fueron percibidos como más desviados de comportamiento y menos competentes social y académicamente. Se identificó la tendencia inversa para las niñas y los niños con altas calificaciones en la cercanía relacional y la dependencia.

**Discusión y Conclusión.** Además, el estudio actual mostró que el profesorado con creencias de mayor autoeficacia tienen más probabilidades de forjar relaciones más cercanas y cálidas con sus estudiantes, porque tenían más confianza en su capacidad y habilidades para el empleo de habilidades efectivas de gestión del aula y la capacidad de mejorar su compromiso.

**Palabras clave:** competencia académica, problemas de conducta, autoeficacia del docente, relación profesor-estudiante, habilidades sociales

## Introduction

A growing body of research indicates that the incidence and prevalence of behavioral disorders in preschool age children are increasing in the United States public educational system (e.g., Baker, 2006; Baker, Grant, & Morlock, 2008; Yoon, 2002). Moreover, at least 10% of the school age population (about 6 million people) exhibited some form of psychopathological behavioral problems (e.g., externalizing and internalizing) at some point in their life (Department of Health and Human Services, 1999; Hamre & Pianta, 2005; Pianta, 1999).

Previous studies have documented the potential impact of a positive early student - teacher relationship on the quality of young children's academic and behavioral success (e.g., Baker, 2006; Birch & Ladd, 1997; Hamre & Pianta, 2001). Children who experience supportive relationships with their teachers develop more positive attitudes toward school (Murray, Murray, & Waas, 2008), have higher levels of peer acceptance (Hughes, Cavell, & Willson, 1999), and are more likely to develop various school adjustment competencies such as high levels of motivation to learn, prosocial skills, and problem solving (e.g., Birch & Ladd, 1997). Conversely, children who have more conflictual relationships with their teachers are more likely to drop out of school, experience peer rejection, and increase the incidence of classroom aggressive behavioral problems (Pianta, Steinberg, & Rollins, 1995).

In the early years, a close and warm relationship with teachers might provide the child with a sense of security and resulting self-confidence to be an active member of the learning process (Pianta, 1999). There are only a few studies that have documented the potential protective factors that may stem from positive teacher-student relationships for the students at risk of academic failure and behavioral problems (Anderson, Christenson, Sinclair, & Lehr, 2004; Hamre & Pianta, 2001).

In this sense, Baker and colleagues (2008) reported that children with significant behavioral problems are at risk for school failure and negative teacher-student relationship. In addition, given the time children spend in classroom, the qualities of teacher-student relationship is very important predictor for successful school adaptation (e.g., Baker, 2006; Hamre & Pianta, 2001). Correlational evidence indicates that students' externalizing (i.e., aggressive and hyperactive behaviors) and internalizing behavior (i.e., asocial and anxious/avoidant

behaviors) problems are negatively associated with the quality of early teacher-student relationships (Birch & Ladd, 1998; Pianta & Steinberg, 1992). Specifically, Birch and Ladd (1998) have examined the linkage between kindergartners' behavior problems and characteristics of their 1st grade teacher-child interactions (e.g., conflict, closeness, and dependency). They have pointed out that children's early behavior problems predicted the quality of teacher-student relationships; specifically, children's early antisocial and asocial behaviors were negatively related to closeness, and positively related to conflict and dependency in their relationships with teachers (Birch & Ladd, 1998).

Similarly, Pianta and Steinberg (1992) examined the correlation between student-teacher relationship quality and students' behavior problems. They found that the students with positive teacher relationships had showed fewer behavioral problems as compared to the students with conflictual teacher-student relationship. Suitably, according to their longitudinal results, the students who have close and warm relationships with their teachers had lower rates of psychopathology and high academic success (Pianta et al., 1995).

Pianta and colleagues (1995) found that among those students predicted to be retained in kindergarten, had teacher relationships characterized by closeness, open communication, and less conflict because those student developed positive attitudes toward school. For instance, Silver, Measelle, Armstrong, and Ezzex (2005) examined the relationship between the student-teacher interaction and later school adjustment in a sample of 283 children and they followed those children from kindergarten through 3rd grade. They indicated that for children who began kindergarten with high internalizing and externalizing behavior problems, positive teacher-student interaction in kindergarten helped them to decrease in disruptive behavior problems in later grades. Therefore, positive and close teacher-student relationships seem to play a noteworthy role for children at risk for academic failure. In this sense, it is very crucial to document and understand the predictive role of teacher-student interactions on students' behavioral problems and their academic achievement.

Besides the impact of teacher-student relationship quality on students' learning and social outcomes, teacher self-efficacy beliefs have been studied as a crucial factor in educational research. In addition, consistent with the general formulation of self-efficacy, Tschanen-Moran and Woolfolk Hoy (2001) defined teacher-efficacy as a teacher's judgment of his or her capabilities to bring about the desired outcomes of student engagement and learning.

However, Dellinger, Bobbett, Oliver, and Ellet (2008) pointed out that the previous definition, above, overlooked the unique role of teachers' beliefs in their ability to execute a wide variety of effective tasks required in different teaching and learning context. Therefore, they defined teacher's self-efficacy belief as the teacher's individual beliefs about his/her own abilities to successfully execute specific learning and teaching within the context of the classroom.

Previous studies noted teacher self-efficacy belief over the years as an influential psychological construct linked to students' outcomes including achievement and motivation (Schunk & Meece, 2006). Therefore, much has been written and studied regarding the different facets of teacher self-efficacy and its impact on students' outcomes but also on teachers' professional development. In fact, previous studies indicate that a strong sense of teacher self-efficacy provides teachers with the continuing motivation and confidence that are key to long-term commitment to teaching and students' academic success (e.g., Richard, Diefendorff., & Martin, 2006 ; Yeo, Ang, Chong, Huan, & Quek, 2008). In this sense, Bandura (1997) put forward that self-efficacy beliefs are very powerful predictors of behaviors because it was explicitly self-referent in nature and directed toward the perception of abilities in a particular task. In this context, teacher education programs all over the world stress on the significance for the task of preparing pre-service teachers to become highly effective educators (Duffin, French, & Patrick, 2012). Along with the necessary pedagogical skills and content knowledge, teachers have to have confidence in their abilities to employ effective instructional practices that contributes to students' learning, motivation, and other positive social and academic outcomes (e.g., Guo, Connor, Yang, Roehrig, & Morrison, 2012; Klassen & Chiu, 2010). Accordingly, Yost (2006) suggests that a teacher's beliefs in his or her abilities to successfully produce designated levels of performance that exercise influence over events that affect students' academic and social development in the classroom can greatly affect teacher practices and the quality of teacher-student relationship. Researchers exploring teachers' self - efficacy beliefs, defined as teachers' beliefs in their ability to positively impact student performance even for students who are unmotivated or difficult to teach (Bandura, 1997; Klassen, Virginia, Tze, Betts, & Gordon, 2011; Wyatt, 2012); however there is a need to better understand the relationship between teacher self-efficacy and performance of both teachers and students due to inconsistent research findings (i.e., Wyatt, 2012).

Despite continued requests by teachers to receive assistance in working with disruptive students (e.g., Bromfield, 2006) and the lifelong risks for students who continue to display classroom disruptive behavior (e.g., Barkley, 2003; Hinshaw & Lee, 2003 ; United States De-

partment of Education, 2001 ), researchers have only remotely examined teacher self - efficacy beliefs in relation to classroom disruptive behavior. However, previous research found that teacher self-efficacy has been linked with student achievement (e.g., Klassen et al., 2011; Wyatt, 2012), classroom management (Ashton & Webb, 1986); special education referrals (e.g., Podell & Soodak, 1993), and even job satisfaction (Caprara, Barbaranelli, Borgogni, & Steca, 2003). Accordingly, students of efficacious teachers generally have outperformed students in other classes (e.g., Anderson, Greene, & Loewen, 1988; Ross, 1992). For instance, Moore and Esselman (1992) found that teacher efficacy was significant predictive of achievement on the Iowa Test of Basic Skills. Similarly, Anderson and colleagues (1988) found that teaching self-efficacy belief was crucial predictive of achievement on the Canadian Achievement Tests.

### *Statement of the Problem*

As aforementioned, concerns about children lacking academic and social skills necessary for successful school adjustment have increased in recent years, as the number of children encountering difficulties in early school years has climbed (National Education Goals Panel, 2003). In addition, unfortunately, many students are at risk for academic failure, special education placement, and grade retention (e.g., Hamre & Pianta, 2001; Pianta et al., 1995). Furthermore, the current state of educational accountability is evaluated by testing, fidelity to the core curriculum; however educators and policy makers often left out the significance of the teacher-student relationship and teacher self-efficacy belief on students' school adjustment. Therefore, there is a need to uncover the factors that are necessary for effective teaching practices that stress on teacher-student relationship and teacher self-efficacy belief in teacher training programs.

With increasing empirical attention in educational research, teacher-student relationships has been identified and documented as a critical factor on overall academic and behavioral adjustment in early school years (Baker, 2006; Baker, Terry, Bridger, & Winsor, 1997; Teven, 2001). Previous studies indicate that establishing positive rapport between teacher and student is key to maintain a warm and close learning environment (e.g., Aviles, Anderson, & Davila, 2006; Pianta, 1999). In fact, the promotion and development of children's skills for adaptive school adjustment and social emotional growth in early school years have become a core focus of educational research in recent years (Pianta & Stuhlman, 2004). In this sense, it

is critical to understand and document the effects of teacher-student relationships and teacher's self-efficacy beliefs on students' academic and social adjustment (e.g., Pianta, 2004; Woolley & Bowen, 2007).

The self-efficacy of pre-service teachers has become a significant focus of educational research in recent years (e.g., Yeo et al., 2008), and higher teaching self-efficacy has been shown to be linked with higher instructional quality and student academic achievement. Specifically, previous studies indicate that a teacher's self-efficacy beliefs influence many aspects of his or her classroom practices (e.g., Klassen, et al., 2011; Wyatt, 2012).

A high level of teacher self-efficacy beliefs may lead to successful classroom management, low student disruptive classroom behaviors, and positive teacher-student dyadic interaction (e.g., Dicke, et al., 2014; Guo, et al., 2012; Skaalvik & Skaalvik, 2010). Though a high level of teacher self-efficacy belief is often linked to effective teaching and classroom management, a determination regarding the linkage between a pre-service teacher's self-efficacy belief, students' behavioral orientation and academic competency, and the quality of teacher-student relationship have been remotely examined (e.g., Jong, et al., 2013). Therefore, there is a need to document and understand the dynamics between student teachers' self-efficacy beliefs, students' academic and behavioral orientations, and teacher-student relationships. In other words, considering that teacher-student relationship quality play noteworthy role in the development of students' academic and social competency in early school years, there is a research gap to identify the contextual relationship between the quality of teacher-student interaction, teacher self-efficacy belief, and students' academic and behavioral orientation.

### *Purpose of the Study*

The purpose of conducting this research was to deepen the field's understanding of the role of teacher self-efficacy beliefs play in the quality of teacher-student relationships and student academic and social development.

The study examined the relationship between teacher-student relationship quality, student teacher's self-efficacy beliefs, and students' behavioral and academic orientations. In this way, the current research might be helpful to understand and document the direct and indirect



impacts of student teacher self-efficacy beliefs on the linkage between the quality of teacher-student relationships and students' school adjustment.

### *Research Questions*

The research questions were developed to understand the relationship between student teacher self-efficacy, students' academic and behavioral orientations, and the quality of teacher-student dyadic interaction. The research questions are as follows:

1. What is the predictive role of student teacher self-efficacy beliefs on students' academic and social competency, teacher-student relationship quality, and their behavioral problems?
2. What is the predictive role of teacher-student relationship quality, students' social skills, and their behavioral problems on students' academic competency?
3. Is the effect of student teachers' self-efficacy beliefs on academic competency mediated by students' behavioral problems, their social skills, and the quality of teacher-student interaction?

## **Method**

### *Participants*

The sample for this research project comprised primary and elementary grade classrooms and their student teachers, who are enrolled in teacher education programs at a large university in a Southwest state. Eighty-seven student teachers (81 female, 6 male) reported on their perceived relationships with 258 primary and elementary students (168 Female, 90 male). The study used convenience sampling to gather participants (Tashakkori & Teddlie, 2009). Student teachers' ages ranged from 21 to 37 ( $M = 22.19$ ,  $SD = 5.38$ ). Their teaching experience ranged from 4 to 11 months ( $M = 7.23$ ,  $SD = 7.14$ ). In addition, the participants serve as student teacher in public elementary schools in a Southwest state for one year.

### *Instruments*

*Student-Teacher Relationship Scale (STRS; Pianta, 2001)* is most extensively validated with early elementary samples. The STRS is a 28-item teacher self-report using a 5-point Likert-type scale. It was developed to assess a teacher's feelings about her or his relationship with a particular student, the student's interactive behaviors with the teacher, and the teacher's beliefs about the student's feeling toward the teacher (Pianta, 2001; Saft, 1994). The STRS is comprised of three subscales (i.e., conflict, closeness, and dependency). The following alpha coefficients were obtained: .89 (STRS Total scale), .92 (Conflict), .86 (Closeness), .64 (Dependency).

*The Social Skills Rating System, Elementary Teacher Form (SSRS-T; Gresham & Elliot, 1990)* was developed for this study. The SSRS measures a teacher's perception of the child's social skills development, academic competence, and problem behaviors in the classroom. The SSRS-T is a 57-item measure that measures social skills (Cooperation, Assertion, and Self-Control), behavioral problems (Externalizing, Internalizing, and Hyperactivity), and academic competence. Internal consistency reliabilities (Cronbach's alpha) for the Social Skills subscales were reported as .92 (Cooperation), .86 (Assertion), and .91 (Self-Control). Alpha coefficients associated with the Problem Behaviors subscales were .88 (Externalizing), .78 (Internalizing), and .87 (Hyperactivity). The alpha coefficients for the Academic Competence subscale was .95.

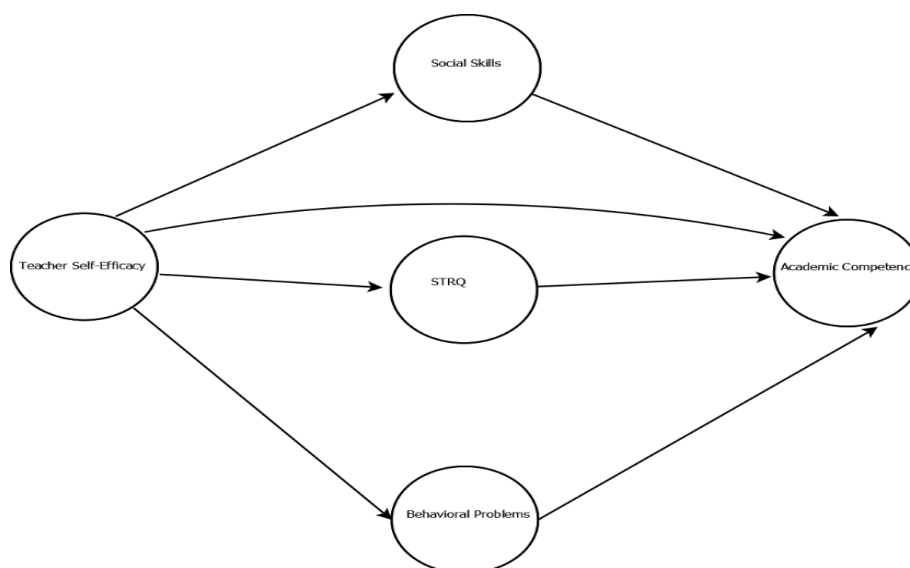
*Teachers' Sense of Efficacy Scale* was used for the study (Tschannen-Moran & Woolfolk Hoy, 2001). This 12-item scale assesses teachers' judgment of capabilities to bring about desired outcomes of student engagement and learning, even among the students who be problematic or unmotivated. This measure contains three subscales: (1) efficacy for instructional strategies (e.g., To what extent can you use a variety of assessment strategies?), (2) efficacy for classroom management (e.g., how much can you do to control disruptive behavior in the classroom?), and (3) efficacy for student engagement (e.g., how much can you do to help your students value learning?). Total score ranges from 12 to 108. High scores mean that the teachers are highly confident to bring about desired outcomes of student engagement and learning. Items are rated on a response scale from 1 (nothing) to 9 (a great deal). Internal consistencies for these subscales ranged from .81 and .86 in a sample of 366 pre-service and in-service teachers (Tschannen-Moran & Woolfolk Hoy, 2001).

### *Datal Analysis*

Data collection has been undertaken as a part of a larger teacher-training program at the university. The participants rated a package of surveys in Qualtrics. Qualtrics is online instrument distribution system. The data was collected in two time frames (i.e., fall 2013 and spring 2014). For the preliminary data analysis, the researcher checked data entry and other problems and identified missing cases to prepare the data for descriptive and inferential analysis. The researcher analyzed the data using SPSS software.

Descriptive statistics were computed for each study variable, including the mean, standard deviation, and corrected item-total correlation. The data in this study were subjected to statistical assumption testing and structural equation modeling (SEM). Mplus (version 7) was used to conduct a confirmatory factor analysis on the factor structures that emerged from the well-defined studies (e.g., Hamre & Pianta, 2001; Pianta, 1999) and for the final structural model.

In this study, the structural and measurement model examined the relationships between five latent constructs; teacher-student relationship quality, pre-service teacher's self-efficacy belief, student behavioral problems, student's social skills, and student's academic competency. This model (see Figure 1) hypothesizes that student teacher self-efficacy beliefs, student's social skills, teacher-student relationship quality, student's behavioral problems, and academic competency are correlated with each other.



*Figure 1.* The Hypothesized Model

## Results

Structural equation modeling (SEM) with the Satorra-Bentler (Satorra & Bentler, 1988) estimation was performed to assess the fit of the hypothesized structural model for the relationship between the five latent constructs. This model proposed that teacher self-efficacy, would lead to teacher-student relationship quality (closeness, conflict, and dependency), student social skills, and their behavioral problems, which in turn would lead to students' academic competencies. Additionally, teacher-student relationship quality, students' social skills, and their behavior problems would lead to students' academic competency. Finally, teacher-student relationship quality (closeness, dependency, and conflict), students' social skills, and their behavioral problems would be correlated with each other.

The results of the CFA confirmed that three indicators to load on teacher self-efficacy, three indicators to load on teacher-student relationship quality, three indicators to load on behavioral problems, three indicators to load on social skills, and four indicators to load on academic competency. The CFA also specified that errors for several indicators would be correlated. The final structural model was significantly improved by removing these items:  $S-B \chi^2 (321, n = 243) = 834.192 (p < 0.0001)$ , RMSEA = 0.043 (CI 0.034 – 0.053), CFI = 0.955.

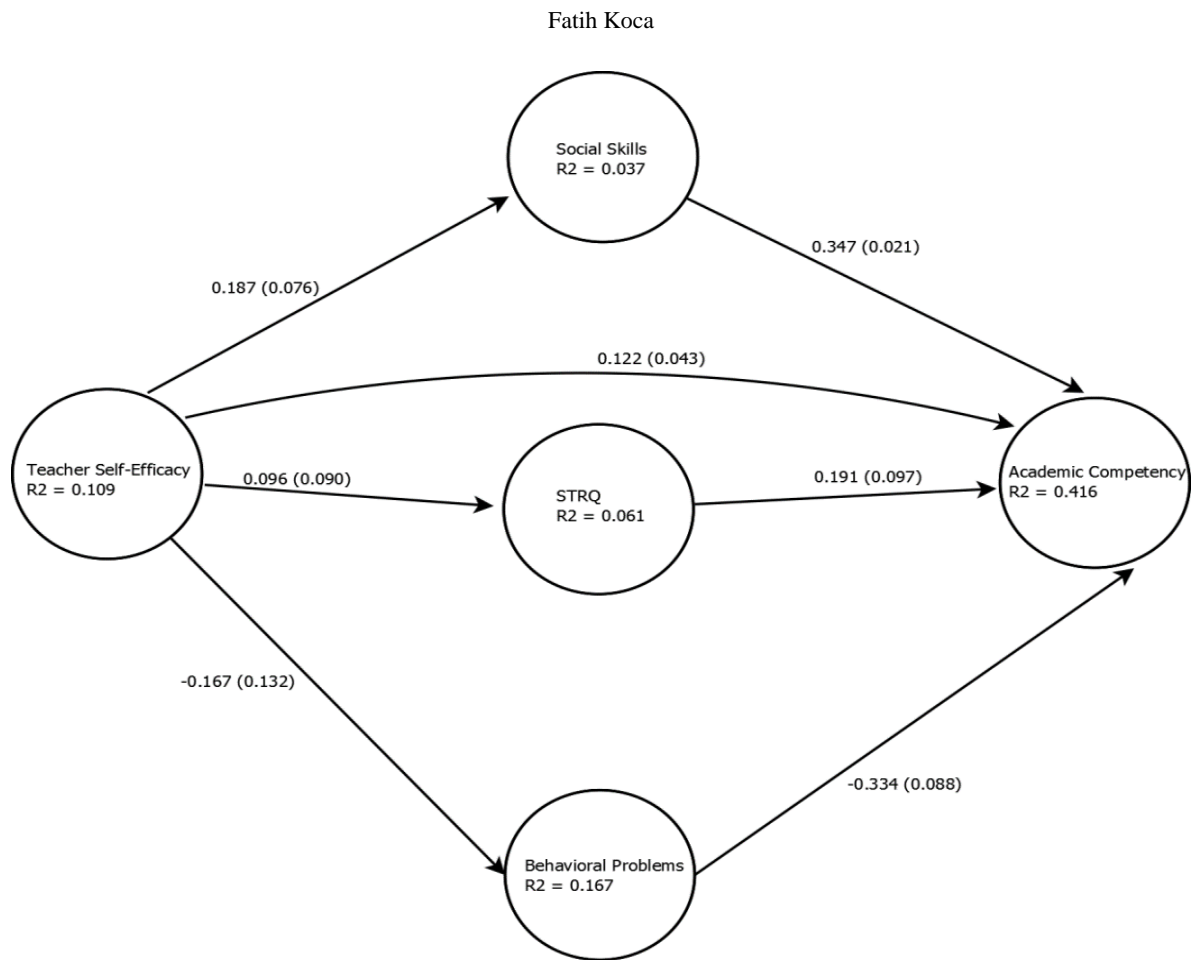
The final structural path explained approximately 42 % of the variance in academic competency, 4 % of the variance in social skills, 17 % of the variance in behavioral problems, 11 % of the variance in teacher self-efficacy, and 6 % of the variance in teacher-student relationship quality. The structural path leading from teacher self-efficacy to academic competency maintained positive estimates ( $\beta = 0.122, p < .05$ ). Also, the structural path leading from student teacher self-efficacy belief to students' social skills ( $\beta = 0.187, p < .05$ ), teacher student relationship quality ( $\beta = 0.096, p < 0.05$ ), and students' behavioral problems ( $\beta = -0.167, p < .05$ ). Furthermore, the structural path leading from social skills ( $\beta = 0.347, p < .05$ ) and teacher-student relationship quality ( $\beta = 0.191, p < .05$ ) to academic competency showed positive estimates. However, the structural path from behavioral problems to academic competency had significant negative regression ( $\beta = -0.334, p < .05$ ). In addition, study results showed that there were significant indirect effects of teacher self-efficacy belief through teacher student relationship quality ( $\beta = 0.154, p < .05$ ), and social skills ( $\beta = 0.138, p < .05$ );

however there was not significant indirect relationship through behavioral problems ( $\beta = -0.002, p = 0.21$ ). The final structural diagram can be seen in Figure 2. Table 1 details the standardized and unstandardized coefficients for the final structural model.

Table 1. Standardized and Unstandardized Coefficients for Final SEM for 5-latent factors

<b>Observed Variable</b>	<b>Latent Construct</b>	<b><math>\beta</math></b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Hypothetical Direction</b>	<b>Type of Effect</b>	<b><math>\beta</math></b>	<b>SE</b>	<b>B</b>	<b>SE</b>
TSE ON Academic Comp.	Direct Effect	0.122	0.043	0.178	0.070
TSE ON Social Skills	Direct Effect	0.187	0.076	0.341	0.098
TSE ON STRQ	Direct Effect	0.096	0.090	0.173	0.065
TSE ON Behavioral Problems	Direct Effect	-0.167	0.132	-0.201	0.123
Social Skills ON Academic Comp.	Direct Effect	0.347	0.021	0.433	0.078
STRQ ON Academic Comp.	Direct Effect	0.191	0.097	0.327	0.024
Behavioral Problems ON Academic Comp.	Direct Effect	-0.334	0.088	-0.387	0.063
TSE VIA STRQ TO Academic Comp.	Indirect Effect	0.154	0.076	0.278	0.109
<b>Hypothetical Direction</b>	<b>Type of Effect</b>	<b><math>\beta</math></b>	<b>SE</b>	<b>B</b>	<b>SE</b>
TSE VIA Social Skills TO Academic Comp.	Indirect Effect	0.138	0.074	0.209	0.168
TSE VIA Behavioral Problems TO Academic Comp.	Indirect Effect	-0.002	0.335	-0.056	0.543

*Note.* CFA = Confirmatory Factor Analysis, SEM = Structural Equation Model, TSE = Teacher Self-Efficacy, STRS = Student- Teacher Relationship Quality.



**Figure 2. The Final Structural Model**

*Research Question 1*

What is the predictive role of student teacher self-efficacy beliefs on students' academic and social competency, teacher-student relationship quality, and their behavioral problems?

The relationship between student teacher self-efficacy belief, students' social skills, their behavioral problems, and academic competency were assessed within overall structural model. The standardized parameter estimate (regression weight) for student teacher self-efficacy belief regressed on students' academic competency was  $\beta = 0.122$  ( $p < 0.05$ ), on social skills ( $\beta = 0.347$ ,  $p < 0.05$ ), on teacher-student relationship quality ( $\beta = 0.191$ ,  $p < 0.05$ ), and every standard deviation increase in teacher-student relationship quality, one would expect an increase of .19 units for students' academic competency. Finally, the standardized parameter estimate (regression weight) for students' behavioral problems negatively regressed on students' academic competency was  $\beta = -0.334$  ( $p < 0.05$ ). Therefore, every standard deviation increase in behavioral problems, one would expect a decrease of .33 units for student academic competency.

### *Research Question 2*

What is the predictive role of teacher-student relationship quality, students' social skills, and their behavioral problems on students' academic competency?

The relationship between student-teacher relationship quality, students' social skills, their behavioral problems, and academic competency were assessed within overall structural model. The structural path leading from social skills ( $\beta = 0.347$ ,  $p < 0.05$ ) and teacher-student relationship quality ( $\beta = 0.191$ ,  $p < 0.05$ ) to academic competency showed positive estimates. However, the structural path from behavioral problems to academic competency had significant negative regression ( $\beta = -0.334$ ,  $p < 0.05$ ). Therefore, every standard deviation increase in behavioral problems, one would expect a decrease of .33 units for student academic competency.

### *Research Question 3*

Is the effect of student teachers' self-efficacy beliefs on academic competency mediated by students' behavioral problems, their social skills, and the quality of teacher-student interaction?

The indirect relationship between student teacher self-efficacy beliefs, student-teacher relationship quality, students' social skills, their behavioral problems, and academic compe-

tency were assessed within overall structural model. There were significant indirect effects of teacher self-efficacy belief through teacher student relationship quality ( $\beta = 0.154$ ,  $p < 0.05$ ), and social skills ( $\beta = 0.138$ ,  $p < 0.05$ ); however there was not significant indirect relationship through behavioral problems ( $\beta = -0.002$ ,  $p = 0.21$ ). In other words, there were statistically significant mediation effect of teacher-student relationship and social skills between teacher self-efficacy belief and academic competency; however behavioral problems did not have significant mediation effect between teacher self-efficacy belief and student's academic competency.

### **Discussion and conclusion**

The current study was designed to examine the impact of teacher-student relationship quality, teacher self-efficacy, and students' behavioral orientation on their academic functioning. The rationale for this relationship was that if teachers' feel efficacious to build and regulate their relationship with their students in classroom settings, they are likely to also feel efficacious to engage in close relationships with their students and appropriate learning and behavioral strategies to contribute students' academic competency. Teacher-student relationship quality would then be seen as a mean by which teachers strengthen their instructional and learning capabilities, and relationship quality to help their students in classroom settings. Results from this study would add to the body of research that assesses the indirect and direct impact of teacher-student relationship quality and students' behavioral orientations on academic functioning.

The research question addressed the predictive role of student teachers self-efficacy beliefs on their relationship quality with their students, students' social and behavioral orientation, and academic success. A number of studies showed the influence if teacher self – efficacy beliefs on students' achievement in several ways: teacher with high self – efficacy beliefs are more likely than teachers with a low sense of self- efficacy beliefs to apply didactic or teacher centered instructional strategies in the classroom, to use classroom management strategies and necessary teaching methods and support students' autonomy and take responsibility for students with special learning and socio – emotional needs ( Chacon, 2005; Tournaki & Podell, 2005). In fact, Teachers with higher self – efficacy beliefs are more successful to keep students on task.



The structural equation model (SEM) predicted a causal relationship, or dependency, between these constructs in that teacher self-efficacy belief had a statistically significant role in the hypothesized model. The regression weight leading from teacher self-efficacy to academic competency was statistically significant and positive ( $\beta = 0.122$ ). This relationship can be interpreted in the following way: for every one standard deviation in teacher self-efficacy, there is .12 unit increases in a student's academic competency. In other words, student teachers with high self – efficacy beliefs made less negative predictions of students' academic and social success and put more effort into teaching persistence when confronted with difficulties and took more risk with the curriculum use new teaching approaches. Furthermore, student teachers with higher self – efficacy beliefs got better gains in their students' achievements. Therefore, the results confirmed that teacher self – efficacy belief is statistically significant predictor of students' academic competency and classroom behavioral orientation.

Cappara and colleagues (2006) examined teachers' self-efficacy beliefs and job satisfaction as determinants of student academic achievement over 2000 teachers in 75 Italian junior high schools. Self-report measures were used to assess teacher self-efficacy beliefs and they averaged students' final grades at the end of junior high school year. Structural equation model results revealed that teachers' self-efficacy belief significantly affected their job satisfaction and student academic achievement. They reported an effect size of .14 for teacher self-efficacy predicting general student academic achievement. Similarly, Benner and colleagues examined the strength of the relationship between students' reading skills and teacher characteristics including teacher self-efficacy belief and social adjustment. Their correlational and multiple regression findings indicated that teacher self-efficacy belief was the most significant predictor for students' literacy skills.

Results from the current study revealed that the regression weight from teacher self-efficacy belief to student's behavioral problems ( $\beta = -0.167$ ) and students' social skills ( $\beta = 0.187$ ) were statistically significant. These relationships can be explained in following ways : for every on one standardized unit increase in teacher self-efficacy, there is -.17 unit decrease in student behavioral problems; but .19 unit increase in students' social skills. In line with previous research findings, teachers who are the most effective classroom managers are teachers who are the most confident in their abilities (e.g., Giallo & Little, 2003; Yilmaz & Cavas, 2008). Classroom behavior problems are a significant and core source of stress and burnout for both new and experienced teachers (Griffith, Steptoe, & Cropley, 1999). Furt-

hermore, Abu-Tineth (2011) examined the effect of teacher self-efficacy belief on students' disruptive behaviors. He showed that behaviors and beliefs of teachers with low teaching self-efficacy were associated with control-oriented discipline techniques, use of verbal embarrassment, and removal of students from class. He also reported that teacher self-efficacy is the most important predictor of students' classroom disruptive behaviors and teachers' classroom management style.

Previous studies also suggested that teacher self-efficacy beliefs play a crucial role in helping children develop social skills in school settings (Benner et al., 2005; Chong et al., 2010; Corkett et al., 2011). Benner and colleagues (2005) examined impact of teacher characteristics including teacher self-efficacy on students' reading skills and school adjustment (i.e., social skills, academic competency, behavioral problems). They found that teacher self-efficacy beliefs were significantly and positively related to students' social skills. Similarly, the current study revealed that teacher self-efficacy is statistically significant factor for the development of students' social skills in classroom settings.

Findings from the current study showed that the structural path from teacher self-efficacy to teacher-student relationship quality ( $\beta = 0.096$ ) was statistically significant and positive. In other words, if one standardized increase in teacher self-efficacy belief, there would be .096 increases in the quality of teacher-student dyadic interaction. A positive classroom environment is crucial for students' learning achievement and motivation (Baker, 2006) and for teachers' well – being (Spilt et al., 2011). The most common definition of self-efficacy comprises beliefs in one's capacity and skills that are relevant in educational context. Accordingly, Tschannen – Moran and Woolfolk Hoy (2001) conceptualized teacher self – efficacy beliefs in three major areas (classroom management, instructional strategies, student engagement). In fact, teacher – student relationship quality significantly relate to teachers' classroom management, employment of adequate instructional strategies, and ability to enhance student engagement (Klassen & Chiu, 2010). In fact, teacher self – efficacy beliefs predict the amount of effort putting into an activity, access to supportive environments increase the chance of experiencing mastery, which in turn increase teacher self – efficacy beliefs and so on (Tschannen – Moran et al., 1998). In fact, teachers with higher self – efficacy beliefs provide more support and positive reinforcement than teachers with lower self – efficacy beliefs. Similarly, the current study showed that teachers with higher self – efficacy beliefs are more likely to build closer and warmer relationships with their students because they had mo-

re confidence in their capacity and skills to employment of effective classroom management skills and ability to enhance students' engagement.

Previous research showed that teacher with higher self-efficacy in promoting a positive learning environment is more tended to motivate students' learning and academic achievement (e.g., Collie, Shapka, & Perry, 2012; Onafowora, 2005). For instance, Collie and colleagues (2012) examined how teachers' sense of social-emotional learning and classroom climate affect their sense of teaching self-efficacy, stress, and job satisfaction. Perceived stress and negative classroom environment were directly related to teachers' sense of self-efficacy. In other words, teachers with lower sense of self-efficacy perceived their classroom environment more conflictual and negative. It is clear that teacher-student relationship quality key to the perception of classroom and learning environment (Pianta, 1999). Therefore, the results of the current study regarding the relationship between teacher self-efficacy and teacher-student relationships revealed consistent findings with the current literature. For instance, Wolters and Daugherty (2007) examined the impact of teacher self-efficacy belief on classroom goal structure and teacher support. Similarly, they found those teachers who were more confident in their ability to get students in learning activities and classroom management provided more teacher support and used more instructional practices with a mastery goal classroom structures.

The research question addressed the predictive role of teachers' relationship quality with their students, students' social and behavioral orientation in students' academic competency. The structural equation model (SEM) predicted a causal relationship, or dependency, between these constructs in that teacher-student relationship, students' behavioral and social orientations had a statistically significant role in the hypothesized model. The regression weight leading from teacher-student relationship quality to academic competency was statistically significant and positive ( $\beta = 0.191$ ). Similarly, the structural path leading from social skills to academic competency was statistically significant and positive ( $\beta = 0.347$ ). On the other hand, the regression weight from students' behavioral problems to academic competency was statistically significant and negative ( $\beta = -0.334$ ). These relationships can be interpreted in the following way: if one standardized unit increase in teacher-student relationship quality and social skills, there would be .19 and .35 unit increase in students' academic competency respectively. For behavioral problems, there would be .33 decreases in their academic competency. In fact, a teacher who feels a strong positive and close connection to a particular

student in his/her classroom, talks with the student frequently, and provides more constructive guidance and praise rather than just criticism. Accordingly, the student is likely to trust his/her teacher more, show more academic and social engagement in learning. Teachers who convey emotional warmth and acceptance as well as make themselves open – minded for personal communication with students boast a positive relational process characteristic of support (Hughes & Cavell, 2003). These supportive relationships key to maintain students' interest and motivation in academic and social pursuits, which in turn lead to better school adjustment skills, including pro – social skills, higher academic competency, and less incidence of classroom behavioral problems. Therefore, the current study findings indicated that more positive and closer teacher – student interactions might lead to more academically and socially adjusted students in the classroom settings.

In fact, an extensive research documented the link between the quality of students' relationship with teachers and children's concurrent and future academic and social outcomes (e.g., Hamre & Pianta, 2007; Murray, Murray, & Waas, 2008; Roorda et al., 2011). For instance, Roorda and colleagues (2011) conducted a meta-analytic approach to examine the influence of teacher-student relationship quality on students' academic achievement and school engagement. In line with the current study findings, they found that students with high level of teacher-student relationship quality exhibited were more academically successful and engaged in learning activities. In addition, Buyse and colleagues (2008) investigated the impacts of problematic classroom composition, the teacher support, and social competency on students' academic achievement. They also showed that aggressive behaviors was fairly stable and linked to ongoing difficulties in teacher-student relationship. Furthermore, aggressive/withdrawn children were lonelier, dissatisfied, and friendless. They were less academically engaged and successful.

The research question assessed whether the effect of student teacher self-efficacy beliefs on academic competency mediated by students' behavioral problems, their social skills, and teacher-student relationship quality. The structural equation model (SEM) predicted a causal relationship, or dependency, between these constructs in that indirect effect of teacher-self efficacy through students' social skills ( $\beta = 0.138$ ) and teacher-student relationship quality ( $\beta = 0.154$ ). However, there was not a significant indirect effect via students' behavioral problems ( $\beta = -0.02$ ). Despite the absence of a significant indirect path via students' behavio-

ral problems, results did confirm that teacher-self efficacy affected students' academic competency through teacher-student relationship quality and students' social skills.

Classroom management is one of the most difficult functions of teaching for novice teachers. In fact, teacher must encourage student cooperation to support learning engagement and develop a positive learning environment (Rink, 2010). In fact, teacher – student relationship quality is the most significant key to classroom learning environment where learners and teachers interact with each other and use a variety of instructional and socio – emotional information resources in classroom settings. Furthermore, teachers who have closer and positive relationships with their students are more competent and confident in building a sense of anticipation and enthusiasm in their students' learning and socio – emotional development. An optimal teacher – student dyadic interaction characterized by low levels of conflict and disruptive behaviors provide teachers a chance to employ appropriate expressions of emotion, respectful communication, and strong interest and focus on given learning tasks (La Paro & Pianta, 2003). In this sense, the current study findings indicated that teachers who had closer relations with their students were more likely to build high teacher self – efficacy beliefs in classroom management and ability to employ adequate learning strategies, which in turn might lead to more academic achievement in their classroom settings. In addition, when children show high externalizing and internalizing behavioral problems, teachers might develop more conflictual and dependent relationships with them. Therefore, teacher might lack the resources effectively manage the social and emotional challenges within a particular classroom context and children might show lower levels of on-task behavior and performance.

Overall, the relationships between teacher self-efficacy, social skills, and teacher-student relationship quality influences students' academic functioning are consistent with the findings of Patrick and colleagues (2007), perceived teacher support, care, mutual respect were significant predictors for teachers' classroom behaviors and students' academic adjustment. Similarly, Ryan and Shim (2007) indicated teachers' characteristic play a noteworthy role in shaping the classroom environment as their students take cues from the teacher regarding how to interact with others in the classroom, which in turn affects students' academic and social adjustment.

Stewart (2014) also examined the impact of classroom environment and teacher self-efficacy belief on students' academic success. He found that when students were in an envi-

ronment that promotes social interaction, mutual respect, and close teacher-student relationship, both teachers and students were more engaged in learning process and had greater confidence in their instructional activities. He reported that the significant direct impact of social interaction ( $\beta = 0.30$ ), mutual respect ( $\beta = 0.25$ ), and teacher support ( $\beta = 0.97$ ) on students' academic adjustment. In addition, the indirect effect of teacher-self efficacy ( $\beta = 0.13$ ) on students' academic adjustment via classroom environment was statistically significant and similar to the findings of the current study.

With the respect to indirect effect of teacher- self-efficacy via students' problems behaviors, the path coefficient was non-significant and minimal ( $\beta = -0.02$ ). Similarly, Stewart (2012) found that students' classroom disruptive behaviors did not have significant mediator role between teacher self-efficacy and academic adjustment ( $\beta = -0.05$ ). However, given the teacher-student relationship quality, students' social skills, and teacher self-efficacy variables addressed in the current study did not impact all students' academic adjustment, further research might be needed to examine whether additional variables of the linkage between the constructs may affect classroom disruptive behaviors for students from different family and cultural background.

Several limitations regarding the current study were worth noting. The questionnaires used to collect information for the current study were in a self-report format. This format relies on the accuracy of student teachers' recall and honesty in reporting their perceptions in order to draw valid conclusion.

This study may be limited due to the fact that data came from online survey, results of online survey may suffer and differ greatly if significant are left out of the research. In addition, the researcher did not have any control on the selection process of students whom participant teacher rated their perception regarding behavioral problems, social skills, and relationship quality. Therefore, the social desirability might be important limitation of the current study.

Another potential limitation of the current study might be stemmed from its reliance on the student teachers' perceptions to examine teacher-student relationships and students' academic and behavioral orientations. Although student teachers' perceptions are very important, teachers may have some perceptual and response biases embedded within their rela-

tionships with their students. In addition, the assumption of “independent of observations” might be violated because the data is based on only student teachers' perceptions. Furthermore, the construct-level relationship dimensions examined by the STRS may be specific to the teacher's perspective. If the students' perspectives regarding their dyadic interactions with their teachers are investigated, factor structure might yield a somewhat different set of teacher-student relationship dimensions.

This study made a significant contribution to the field of research and also provided insights into how to improve teacher-training practices for teacher education programs. In addition, given that the factor and construct validity of the STRS were also tested, future research should focus on additional evidence of the applicability of the scale with different demographic background. In consideration of the age and gender differences reported in past research (Koomen et al., 2012), future research should focus on the development age- and gender-specific norms to assess the quality of teacher-student dyadic interaction.

The unique nature of the current study was to examine the mediation role of teacher-student relationship quality between teacher self-efficacy belief and students' academic and behavioral orientations. However, more research is still needed to document and understand the dynamic relationship between the constructs.

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