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The Relationship between Principal Self-Efficacy and Organizational Citizenship Behavior of Teachers

Abstract: Self-efficacy and organizational citizenship behaviors in schools are critical to understanding interactions between principals and teachers. The main purpose of this research is to look for the relationship between principals' self-efficacy (PSE) and organizational citizenship behavior (OCB) of teachers. Theoretically, self-efficacy is rooted in constructivism, and, particularly, in social cognitive theory, which is grounded in the work of Bandura. OCB, according to Organ, Podsakoff, and MacKenzie (2006), is defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization" (p. 3). Williams (1988) asserted that OCB is composed of two dimensions: benefits to the individual and benefits to the organization. Interestingly, there is no study, thus far, that addresses the connection between PSE and the OCB of teachers.

Keywords: Albert Bandura, self-efficacy, organizational citizenship behavior, principal self-efficacy.

摘要 (Abdulaziz M. Alshaikh 和 John B. Bond : 校长自我效能感与教师组织公民行为之间的关系) : 自我效能感和组织公民行为对理解学校中校长与教师的互动至关重要。本研究的主要目的是探究校长的自我效能感 (PSE) 与教师的组织公民行为 (OCB) 之间的关系。自我效能理论植根于建构主义, 更准确的说, 该理论来源于Bandura的社会认知理论。Organ, Podsakoff和MacKenzie (2006) 将OCB定义为“未被正常的报酬体系所明确和直接规定的、员工的一种自觉的个体行为, 这种行为有助于提高组织功能的有效性。”(第3页)。Williams (1988) 断言OCB由两个维度组成: 个人利益和组织利益。值得注意的是, 目前没有关于PSE与教师OCB之间关系的研究。

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Abstract (Abdulaziz M. Alshaikh & John B. B. Bond: Das Verhältnis zwischen prinzipieller Selbstwirksamkeit und organisatorischem Staatsbürgerschaftsverhalten von Lehrkräften): Selbstwirksamkeit und organisatorisches Bürgerschaftsverhalten in Schulen sind entscheidend für das Verständnis der Interaktionen zwischen Schulleitern und Lehrern. Hauptzweck dieser Untersuchung ist es, nach dem Zusammenhang zwischen der Selbstwirksamkeit (PSE) der Prinzipien und dem Verhalten der Organisationsbürgerschaft (OCB) der Lehrer zu suchen. Theoretisch ist die Selbstwirksamkeit im Konstruktivismus und insbesondere in der sozialen Kognitionstheorie verwurzelt, die auf der Arbeit von Bandura basiert. OCB, so Organ, Podsakoff und MacKenzie (2006), ist definiert als "individuelles Verhalten, das diskretionär ist, nicht direkt oder explizit durch das formale Belohnungssystem anerkannt wird und insgesamt das effiziente und effektive Funktionieren der Organisation fördert" (S. 3). Williams (1988) behauptete, dass OCB aus zwei Dimensionen besteht: dem Nutzen für den Einzelnen und dem

Nutzen für das Unternehmen. Interessanterweise gibt es bisher keine Studie, die sich mit dem Zusammenhang zwischen PSE und OCB von Lehrern beschäftigt.

Schlüsselwörter: Albert Bandura, Selbstwirksamkeit, Verhalten der Organisations-bürgerschaft, grundsätzliche Selbstwirksamkeit.

Аннотация (Абдулазиз М. Альшаих & Джон Б.Б. Бонд:): Соотношение между самоэффективностью принципов и гражданским организационным поведением преподавателей): Самоэффективность и гражданское организационное поведение в школах играют решающую роль для понимания взаимодействия между администрацией школы и её педагогическим составом. Главная цель данного исследования – установление связи между самоэффективностью принципов - Perceived Self-efficacy (PSE) - и гражданским организационным поведением преподавателей - Organizational Citizenship Behaviour (OCB). Теория самоэффективности берет свое начало в конструктивизме, чтобы быть более точным, в социально-когнитивной теории, которая основывается на трудах А. Бандуры. OCB, вслед за Органом, Подсакофф и МакКензи (2006), определяется как «индивидуальное дискреционное поведение, не распознаваемое непосредственно и определенным образом формальной системой поощрений, но которое в агрегированном виде способствует эффективному функционированию организации» (с. 3). Вильямс (1988) утверждает, что OCB состоит из двух величин: индивидуальной выгоды и корпоративной выгоды. Интересно отметить, что до сих пор не было исследований, описывающих связь между PSE и OCB в педагогической среде.

Ключевые слова: Альберт Бандура, самоэффективность, гражданское организационное поведение, принципиальная самоэффективность

Introduction and Historical Context

Over time, expectations of how principals should fulfill their roles have evolved and become more complex. The addition of accountability regarding student academic achievement in high-stakes assessments has also increased the pressure on principals' performance. This increased pressure highlights the importance of principals' sense of efficacy to meet the expectations and demands of their position (Tschannen-Moran & Gareis, 2004). Within the process of meeting those expectations and demands, a principal's belief and skill in urging those under his leadership toward needed behaviors defines self-efficacy. However, administrators and principals often ask teachers to adopt behaviors that are outside their traditional roles. For example, they may ask teachers to help newly hired teachers, to volunteer for school committees, and to participate in fund-raising campaigns. These extra-role behaviors are voluntary and aimed at benefitting someone else. Organ (1988) has defined such pro-social behaviors in organizational settings as organizational citizenship behavior. The importance of organizational citizenship behavior to organizational success has led to many attempts to identify its antecedents. Meta-analyses have shown that employees' attitudes (satisfaction, perception of fairness, and commitment) relate to organizational citizenship behavior (Organ & Ryan, 1995; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Moreover, Podsakoff et al. (2000) have shown that transformational leadership relates to each dimension of organizational citizenship behavior. Somech and Drach-Zahavy (2000) have suggested that teachers' job satisfaction correlates with their citizenship behavior towards the students, the team, and the organization. They also pinpointed self-efficacy as a possible predictor of teachers' organizational citizenship behavior. The purpose of this study is to measure principals' self-efficacy (PSE) and the organizational citizenship behavior (OCB) of teachers and to determine if there is any significant relationship between these two variables.

Theoretical Basis of the Study

Self-Efficacy Theory. Self-efficacy theory refers to a belief that someone has the capability and skills to achieve success in a particular subject. According to Bandura (1986), self-efficacy's most prominent theorist, self-efficacy is an individual's ability to "organize and execute courses of action required to attain designated types of performance" (p. 391). However, as Bandura (1997) clarified, the concept of self-efficacy theory is someone's belief in his or her own ability—not the ability itself—to accomplish an objective or attain an aim. He claimed:

people make causal contributions to their own functioning through mechanisms of personal agency. Among the mechanisms of agency, none is more central or pervasive than peoples' beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives. (Bandura, 1997, p. 118)

According to Bandura's (1997) social-cognitive theory, the ability of people to achieve, based on their belief that they are able to attain a desired target, is due to their sense of self-efficacy. Consequently, the theory of self-efficacy plays a major role when pursuing objectives and dealing with difficult tasks. Bandura (1997) provided and emphasized different ways to develop a stronger sense of self-efficacy in order to overcome challenges, cultivate persistence, and motivate oneself. He stated, "the stronger their beliefs, the more vigorous and persistent are people's efforts" (p. 394). This clearly stated the importance of the self-efficacy theory in how it affects people's daily lives and influences people's efforts to succeed. However, if people have negative perceptions of self, those might lead to inaction where action is expected, whereas positive perceptions of self may compel them to achieve.

Bandura's (1997) self-efficacy theory has three dimensions: complexity, generality, and strength. Ware and Kitsantas (2011) described Bandura's classification of the sources of self-efficacy beliefs as "mastery experiences, vicarious experience, verbal persuasion, and physiological reactions" (p. 184). The mastery experiences are the most influential factors among these four (Bandura, 1997; Goddard, Hoy, & Hoy, 2000). The complex cognitive process individuals experience through the social cognitive framework results in motivation for most actions (Bandura, 1977).

Organizational Citizenship Behavior (OCB). Since the late 1970s and over those last three decades, many studies have contributed to the study of OCB and overall organizational effectiveness. Three particular aspects are central to the OCB construct. First, OCB is discretionary behavior, not part of a job description, and performing OCB is an employee's personal choice (Organ, 1988). Second, OCB can extend beyond a job description's requirement (Organ, 1988). Third, OCB contributes positively to overall organizational effectiveness (DiPaola & Tschannen-Moran, 2001).

Organ is one of the first authors and researchers who wrote about and expanded on the subject of OCB. Moreover, the concept has evolved since Organ and his colleagues first described it in 1983. In his 1988 book, Organ defined OCB as

individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system which, in the aggregate, promotes the effective functioning of the organization... the behavior is rather a matter of personal choice, such that its omission is not generally understood as punishable. (p. 4)

Statement of the Problem

The quality of the learning environment depends largely on the OCB of teachers, especially as schools worldwide are struggling to meet the needs of students in their particular learning

environment. However, administrators acknowledge that while some teachers display high levels of OCB, others do not. Addressing this is a challenge for school principals. Our research is one way to help students, teachers, and principals improve a school's achievement and effectiveness. Self-efficacy and OCB, in general, can have an influence on the personal and organizational level, such as school environment. Schools need to develop these concepts in students, teachers, and principals to help improve school achievement and effectiveness. Self-efficacy and OCB theories have been researched extensively, but no study measuring the relationship between PSE and OCB has been found.

Review of the Research on Principals' Self-efficacy

Practicing leaders' self-efficacy (of which principals' self-efficacy is a part) is necessary for bringing about change and reaching higher levels of student achievement; its practice leads to an improvement in schools' collective efficacy and teachers' abilities. Moreover, leadership self-efficacy has a positive effect on staff and teachers' efforts and their commitment to their work. As Goddard and Salloum (2011) have argued, leaders' self-efficacy not only encourages staff and teachers' input, but also positively influences their attitudes, and teachers' enthusiasm can have a positive impact on student accomplishment and achievement. According to Versland (2013), however, a lack of self-efficacy can inhibit a leader's ability to set higher goals and "can negatively affect the performance of followers and their commitment to organizational goals" (p.14). Also, Bandura (2009) has suggested that self-efficacy of new leaders might be vulnerable to influence or harm, or it might be reduced by challenges they face; even if they have had a few successful mastery experiences, their self-efficacy might still be still susceptible to these difficulties.

Leaders' (principals') self-efficacy, and its influence on staff and teachers' achievement, is essential to achieving school goals. Versland (2013) stated that self-efficacy is associated with making plans, developing staff and teachers, restructuring a school, and running an instructional program. This view is also supported by Leithwood and Jantzi (2008) who stated that "both task direction and goal setting are leader behaviors empirically associated with the development of self-efficacy beliefs" (p. 507).

Versland's (2013) research discussed the implications of a "grow your own" leadership program. Versland expressed the importance of leaders' self-efficacy as a theory that "provides a conceptual framework through which to examine the factors of effective leadership and the ways in which these factors enhance school success and student growth" (p. 14). Bandura (1997) also viewed self-efficacy as a fundamental skill for leadership because leaders face challenges on a daily basis. Bandura further emphasized that leaders who hesitate in decision-making or who do not believe in their ability to succeed may avoid obstacles and challenges, and may therefore fail. In contrast, according to Bandura, those who believe strongly in their own proficiencies may intensify their efforts to succeed.

Self-efficacy can guide and effect many behaviors. Modlin (1997) found that principals' who have a high level of self-efficacy had teachers who expressed how strongly their principals influenced their own motivation and behavior. Research by Yu-kwong and Walker (2010) found that among Hong Kong vice principals there were four main aspects to job satisfaction. These were "professional commitment, sense of efficacy, sense of synchrony, and level of personal challenge" (p. 545).

Wahlstrom, Seashore-Louis, Leithwood, and Anderson (2010) discussed the findings from a learning leadership study. They claimed there are two reasons why self-efficacy is an essential element of successful school leadership. First, self-efficacy is a factor that affects principals' choice of what actions they should take. Second, self-efficacy is an ability that helps leaders deal effectively with difficulties they may face in their field. Bandura (1997) suggested that self-efficacy is important to school leaders' success, especially in schools whose leaders have a strong desire to

succeed. These types of leaders have the power to adapt to changing circumstances and are more determined to overcome obstacles.

Research by Tschannen-Moran and Gareis (2004) examined three studies conducted to capture principals' sense of efficacy. They have found that when observing teachers, principals with higher self-efficacy were more likely to pursue a deeper understanding of the subjects being observed, more open to new thoughts that could aide in effective teaching, and more inclined to launch challenging and inspiring instructional aims for themselves and their teachers. The results also showed that principals' self-efficacy could motivate and inspire teachers.

In a study conducted by Murphy and Torff (2012) was focused upon administrators' self-efficacy beliefs on supervision of teachers of English as a Second Language. The research investigated whether or not administrators who supervise ESL teachers feel proficient in doing so. The results of their study indicated "low self-efficacy in supervising ESL teachers was felt more acutely by supervisors who were responsible for larger numbers of ESL teachers" (Murphy & Torff, 2012, p. 5). That means the higher the number of ESL teachers an administrator supervises, the lower the self-efficacy the administrator has (Murphy & Torff, 2012).

Devos, Bouckennooghe, Engels, Hotton, and Aelterman (2006) aimed to designate at the elementary school level which individual, organizational, or external environmental factor contributed to enhancing the understanding of the well-being of Flemish primary school principals. The results showed self-efficacy to be correlated with job satisfaction and suggested that principals who experience lower self-efficacy may view difficult situations as threats rather than challenges and opportunities for change. Devos et al. (2006) found that "school principals with higher levels of self-efficacy are more likely to experience higher well-being compared to their counterparts with a lower degree of self-efficacy" (p. 38). The researchers also concluded that job satisfaction, higher well-being, and lower levels of burnout could be associated with high levels of PSE. Consequently, high levels of PSE may reduce principal turnover (Devos et al., 2006).

Federici and Skaalvik (2012) investigated the relationship between principals' self-efficacy, burnout, job satisfaction, and principals' motivation to quit. The results of the two models that delineated the relationships between factor loadings and latent variables indicate that the indirect relation between principals' self-efficacy and motivation to quit a job was large and negative (-.619 and -.631). In contrast, in both models there was a moderate but positive direct relationship between self-efficacy and motivation to leave the position as principal (.224 and .235). The study found that principals with low self-efficacy might hesitate in their decision making more and may doubt their ability to face challenging tasks more than principals with higher levels of self-efficacy.

Review of the Research on Organizational Citizenship Behavior

A number of arguments draw solid objects on the dimensional surface of organizational citizenship behavior. Organ (1990) asserted that OCB has a five-dimensional construct (i.e., altruism, conscientiousness, sportsmanship, courtesy, and civic virtue). Williams (1988), however, found and argued for a two-dimensional definition of OCB: (a) benefits to the organization in general, and (b) benefits directed at individuals within the organization. DiPaola and Tschannen-Moran (2001) were the first to examine OCB in school contexts. They argued that, through factor analysis, OCB should be viewed as a one-dimensional construct when applied to school settings: behaviors that benefit individual coworkers and students and those that benefit the school enrich the organization's goals (DiPaola & Tschannen-Moran, 2001). The presence of OCB can prevent those in the role of managers or administrators from threatening penalties or needing to offer formal incentives to employees or teachers to solicit OCB (Organ, 1990). However, Haworth and Levy (2001) claimed that employees enact and sustain OCB only when managers reward such behaviors fairly. Moreover, as Somech and Ron (2007) pointed out, teachers who believe their principals appreciate their contributions and care about their well-being show higher levels of OCB. "The

more supportive the teachers perceived their principal, the more likely they were to engage in OCB” (Somech & Ron, 2007, p. 57). DiPaola and Tschannen-Moran (2001) argued that many teachers cannot do more than fulfill minimum performance requirements, but that teachers in well-operated schools may be able to perform more than the minimum requirements of their formal, daily job descriptions.

While one of the benefits of OCB is its positive contribution to individuals or to an organization as a whole (Kidwell, Mossholder, & Bennett, 1997), organizational citizenship behavior can nevertheless have major consequences. Oplatka (2009) argued that OCB might not necessarily generate positive outcomes for an organization; outcomes may depend on context. For example, a worker might help other coworkers and he or she may save the organization time and money on training. However, that worker might spend so much time helping colleagues that the quality of her or his own work may suffer or not receive proper attention.

A consideration of organizational citizenship behavior in schools is critical to the understanding of interactions between principals and teachers. DiPaola and Tschannen-Moran (2001) asserted that OCB contributes to the overall effectiveness of the school and reduces the management component of the administrator’s role. DiPaola and Hoy (2005) found a significant relationship between organizational citizenship of teachers and student achievement on standardized tests. Dussault (2006) examined the relationship between teachers’ instructional efficacy and their OCB and found positive and significant correlations. Furthermore, Somech and Bogler (2002) showed that teacher commitment was positively related to OCB. Bragger, Rodriguez-Srednicki, Kutcher, Indovino, and Rosner (2005) studied how OCB among teachers was related positively to job satisfaction, work-staff culture, and organizational commitment. According to Somech and Drach-Zahavy (2000), job satisfaction was positively associated with OCB. Bogler and Somech (2004) found that teachers with high levels of satisfaction in their work tended to exhibit more OCB than other teachers.

Oplatka (2009) noted that professionals and employees often perform extra-role activities that they are not paid for or appreciated by superiors for. In his study, he attempted to better understand teacher OCB consequences for the teachers who performed OCB, as well as for their school. The inductive analysis of the teacher interview data indicated that teachers link teachers’ tendency to perform OCB at work to self-fulfillment, job satisfaction, and positive feedback from stakeholders, peers, and superiors. Students also benefitted in terms of high achievement, well-being, and class behavior from teachers who perform OCB in their work. Through the interviews, the teachers expressed their feelings about OCB and how it leads to higher student achievements, more positive attitudes towards class and school, and improved discipline in school.

DiPaola and Tschannen-Moran (2001) designed their study to explore how OCB can be cultivated and created a new measure for OCB. The researchers found a strong link between OCB and both school climate and one of the dimensions of school climate—collegial leadership. Other findings show a strong correlation between teacher professionalism and OCB, and that a strong school climate was positively related to the cultivation of OCB in schools.

Burns and DiPaola (2013) claimed that principals are obligated to create a culture in which educators can use professional discretion to choose when to exceed minimum performance requirements if those principals intend to increase the expectations and complexities of performances. The results of their study suggested direct correlations among organizational citizenship behaviors, trust, and student achievement and indicated that student achievement has a positive significant relationship with OCB in both qualitative and quantitative studies.

The only research found that has examined the relationship between self-efficacy and organizational citizenship behavior is Somech and Drach-Zahavy’s (2000) study. They suggested that teachers’ job satisfaction correlates with their citizenship behavior towards the students, the

team, and the organization. They also determined that self-efficacy is a possible predictor of teachers' organizational citizenship behavior; however, the prediction was made about teacher self-efficacy and teacher organizational citizenship behavior. Somech and Drach-Zahavy (2000) found a positive significant relationship between self-efficacy and extra-role behavior towards the organization ($r = 0.19$, $p < 0.01$); however, there was no significant relationship between self-efficacy and extra-role behavior towards the student ($p > 0.05$). They also looked at the relationships between collective efficacy and extra-role behavior and they found no significant relationships between collective efficacy and extra-role behavior towards the student or towards the organization.

Summary

The literature on the self-efficacy and organizational citizenship behavior of school leaders is substantial and ongoing. A consistent pattern of findings underscores how a principal's attitudes and behaviors impact that of those they lead. Principals with high self-efficacy positively influence others. Similarly, as shown by research on organizational citizenship behavior, school climate, culture, and teacher job satisfaction are highly related to the degree of support, modeling, and nurturing provided by a leader.

Methodology

Research Questions and Hypotheses

Below are the research questions and hypotheses:

Question 1. What is the level of principals' self-efficacy in Dhahran's schools as measured by the Principals' Self-Efficacy Scale (PSES)?

Question 2. Are there any differences in the level of PSE between the three levels of schools?

Question 3. What is the level of OCB of teachers in Dhahran's schools as measured by the Organizational Citizenship Behavior Scale (OCBS)?

Question 4. Are there any differences in the level of OCB between the three levels of schools?

Question 5. Is there a statistically significant relationship between PSE and the OCB of teachers?

Analytic and Statistical Procedures

To answer the first and the second research questions, descriptive statistics were used to examine the principals' self-efficacy and to examine the organizational citizenship behaviors of teachers.

To answer the third and the fourth research questions, one-way analysis of variance (ANOVA) was used to determine whether there are any statistically significant differences between the means of the three levels of schools in the principals' self-efficacy scores and in the organizational citizenship behaviors of teachers scores. One-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of two or more independent groups.

To answer the fifth research question, Spearman's rank-order correlation was used to determine the relationship between the principals' self-efficacy and the organizational citizenship behaviors of teachers. Spearman's correlation is used to determine the strength and direction of the association or relationship between two continuous and/or ordinal variables (Field, 2013).

Research Design

Descriptive statistics and correlational design were assessed to measure the self-efficacy of school principals and the organizational citizenship behavior of teachers and to describe the relationship between school principals' self-efficacy and the organizational citizenship behavior of teachers. This study determined the extent to which the three levels of schools differ from each other with PSES and teachers' OCBS scores. Principals and teachers were enabled to provide information based on the context of their individual schools. The use of anonymous surveys provided an opportunity to collect ample information for analysis.

Population and Sample

Surveyed in this study were principals and teachers at public and private schools in Dhahran's school district in the Eastern Province of Saudi Arabia, as identified through the Educational Services Department of the Eastern Province. The Dhahran School District's website has general statistical data about Dhahran's schools from the school year 2015–2016. The sample included 37 private schools and 34 public schools (32 boys' elementary schools, 20 boys' middle schools, and 19 boys' high schools) for a total of 71 boys' schools.

Instrumentation

The instruments used to investigate these research questions were two separate web-based anonymous questionnaires that include a description of the study, external and personal factor questions, and either the Principals' Self-Efficacy Scale survey or the Organizational Citizenship Behavior Scale survey. The first instrument that was used in this study is a refinement of the earlier PSES created by Tschannen-Moran and Gareis (2004) to measure principals' self-efficacy. The instrument measures PSE with a scale that uses 18 items and three developing factors through factor loading: management, instructional leadership, and moral leadership. The survey assesses PSE along a 6-point Likert-type scale. Responses range from 1 (*Not at All*) to 6 (*Very Well*). The OCBS, developed by Somech and Ron (2007), is a 24-item Likert-type scale that measures the degree to which the teacher at a school engages in organizational citizenship behavior. The Likert-type instrument will use a 6-point scale that ranges from 1 (*Not at All*) to 6 (*Very Well*).

Results

Data Collection

The data from the online, voluntary principal survey were collected from December 12, 2016 through December 26, 2016, and again from January 2, 2017 through January 10, 2017, and for a third time from January 16, 2017 through January 26, 2017. After the survey period ended, the data were downloaded directly from the web-based survey website into SPSS for analysis. As specified in the informed consent statement, no IP addresses were collected from the respondents.

Analysis of Response Rates

This study's final population included 71 school principals and 1,496 schoolteachers from the Dhahran School District. During the three survey periods, the total final completed responses to the PSES survey were a sample of 46, which resulted in a 64.7% response rate, and the total final completed responses to the OCBS survey was 233, which resulted in a 15.5% response rate. In general, online survey response rates tend to be low (Fowler, 2009). According to Sax, Gilmartin,

and Bryant (2003), online survey response rates decline over time and may drop as low as 12.3% (especially among male participants). However, in this study, the response rate to the PSES was (64.7% > 12.3%), and the response rate to the OCBS was (15.5% > 12.3%).

Analysis of Data

SPSS version 24 was used for normality and descriptive testing to examine graphic and numeric assumptions of normality. According to Field (2013), the Shapiro-Wilk is preferred to the Kolmogorov-Smirnov test as it has “more power to detect differences in normality” (p. 188). For this reason, the Shapiro-Wilk test was used to determine if the distribution of scores was significantly different from a normal distribution (Field, 2013). When the values of skewness and kurtosis were reviewed, this test revealed they were within normal ranges (less than 1.0 and greater than -1.0).

The Shapiro-Wilk and the Kolmogorov-Smirnov tests of normality were not statistically significant for the PSES mean scores, $M = .970$, $p = .270$, and the value of skewness and kurtosis was within the range of ± 1 (see Tables 1 and 2) in the histograms, which indicates that the data are normal. On the other hand, the Shapiro-Wilk and Kolmogorov-Smirnov tests of normality were statistically significant for the OCBS mean scores, $M = .970$, $p = .001$, which indicates non-normality (see Tables 3 and 4). However, with the value of skewness and kurtosis within the range of ± 1 in the histograms, we can infer that the data was approximately normally distributed. Thus, the normality assumption is satisfied.

Table 1
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PSES means	.114	46	.173	.970	46	.270

a. Lilliefors Significance Correction

Table 2
Descriptive Statistics

	N	M	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	SE	Statistic	SE
PSES means	46	5.3031	-.207	.350	-.449	.688

Table 3
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
OCBS means	.080	233	.001	.970	233	.000

a. Lilliefors Significance Correction

Table 4
Descriptive Statistics

	N	M	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	SE	Statistic	SE
OCBS means	233	5.2879	-.481	.159	-.291	.318

Analysis of Principals' Self-Efficacy

Data results 1.

The PSE scores reported the Cronbach alpha coefficient for internal consistency as .883 for the overall 18 items. The PSES mean score of 5.3 out of 6 with $SD = .38$ indicates that principals in Dhahran's schools have a high level of self-efficacy as measured by the PSES. A one-way analysis of variance (ANOVA) was used to examine whether the level of the PSES differs between the three levels of schools. (See Table 5 for the means and standard deviations for each of the three levels of schools).

Table 5
 Means and Standard Deviations of PSES

	<i>N</i>	<i>M</i>	<i>SE</i>
Elementary school	19	5.2339	.43056
Middle school	14	5.3214	.40951
High school	13	5.3846	.26300
Total	46	5.3031	.38091

The test for normality indicated the data were statistically normal and the homogeneity of variance was not significant, *Levene's* $F(2, 43) = 1.507, p = .233$ (see Table 6), indicating that the assumption that underlies the application of ANOVA was met. All subsequent analyses used an alpha level of .05. The one-way ANOVA of PSE (see Table 7) was not statistically significant, $F(2, 43) = .617, p = .544$, indicating that all three levels of the schools had the same level of PSES scores.

Table 6
 Test of Homogeneity of Variances for PSES

Levene statistic	<i>df1</i>	<i>df2</i>	Sig.
1.507	2	43	.233

Table 7
 Analysis of Variance for PSES

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Between groups	.182	2	.091	.617	.544
Within groups	6.347	43	.148		
Total	6.529	45			

Analysis of Organizational Citizenship Behavior of Teachers

Data results 2.

The OCBS scores reported the Cronbach alpha coefficient for internal consistency as .886 for the overall 24 items. The OCBS mean score of 5.28 out of 6, with $SD = .454$, indicates that teachers in Dhahran's schools have a high level of organizational citizenship behavior as measured by the OCBS. A one-way analysis of variance (ANOVA) was used to examine whether the level of the OCBS

differs between the three levels of schools. (See Table 8 for the means and standard deviations for each of the three levels of schools).

Table 8
Means and Standard Deviations of OCBS

	<i>N</i>	<i>M</i>	<i>SD</i>
Elementary school	125	5.2913	.46889
Middle school	49	5.2543	.45479
High school	59	5.3086	.42675
Total	233	5.2879	.45408

The test for normality indicated the data were statistically normal and the homogeneity of variance was not significant, *Levene's* $F(2, 230) = .277, p = .758$ (see Table 9), indicating that the assumption underlying the application of ANOVA was met. All subsequent analyses use an alpha level of .05. The one-way ANOVA of the OCB of teachers (see Table 10) was not statistically significant, $F(2, 43) = .198, p = .820$, indicating that all three levels of schools had the same level of OCBS scores.

Table 9
Test of Homogeneity of Variances for OCBS

Levene statistic	<i>df1</i>	<i>df2</i>	Sig.
.277	2	230	.758

Table 10
Analysis of Variance for OCBS

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Between groups	.082	2	.041	.198	.820
Within groups	47.753	230	.208		
Total	47.835	232			

Analysis of the Relationship between Principals' Self-Efficacy and Organizational Citizenship Behavior of Teachers

There were 46 schools that participated in the PSES, and 42 schools that participated in the OCBS. To determine the relationship between the principals' self-efficacy and the organizational citizenship behaviors of teachers in this study, the researcher included only schools whose principal had participated in the PSES and who had at least one teacher that participated in the OCBS. To test the relationship between PSES and OCBS, the PSES means and the OCBS means were calculated and merged into one SPSS file along with the school names to correlate the means of the two variables in each school. The number of schools that participated in both the PSES and OCBS surveys is 37 (16 elementary schools, 10 middle schools, and 11 high schools; the total includes 37 principals and 228 teachers; see Table 11 and Table 12).

Table 11
Schools Participating in both PSES and OCBS Surveys

		<i>f</i>	%
Valid	Elementary school	16	43.2
	Middle school	10	27.0
	High school	11	29.7
	Total	37	100.0

Table 12
Number of Principals to Teachers in Same Particular School for Comparison between PSE & OCB

	N Principals	N Teachers
1	1	3
2	1	1
3	1	5
4	1	5
5	1	6
6	1	13
7	1	5
8	1	17
9	1	11
10	1	9
11	1	12
12	1	2
13	1	4
14	1	1
15	1	4
16	1	6
17	1	7
18	1	2
19	1	1
20	1	4
21	1	16
22	1	9
23	1	8
24	1	1
25	1	4
26	1	7
27	1	5
28	1	7
29	1	5
30	1	6
31	1	2
32	1	6
33	1	11
34	1	10

35	1	7
36	1	1
37	1	5
Total	37	228

Data Results 3.

A Spearman's rank-order correlation was used to test for correlation between the mean of principals' self-efficacy and the mean of organizational citizenship behaviors of teachers. As noted in this chapter, Spearman's correlation is used to determine the strength and direction of the association or relationship between two continuous and/or ordinal variables (Field, 2013). In this study, the PSES and the OCBS are Likert scales, which are considered ordinal variables. The analysis of data reveals that the PSES is normally distributed but the OCBS is not.

Principals' self-efficacy as measured by the PSES score will show a statistically significant relationship ($p < .05$) with the OCBS of teachers' mean scores. The correlation between PSES and OCBS was not significant, $r = .102$, $n = 37$, $p = .546$ (see Table 13). However, the correlation ($r = .102$) is not statistically significant at the .05 level (two-tailed), which may be interpreted as an absence of a statistically significant relationship between PSE and teachers' OCB. In order to have a statistically significant relationship between two variables with an $n = 37$, the correlation must be $r > .325$ and $p < .05$.

Table 13
Correlations between PSES and OCBS

			OCBS means	PSES means
Spearman's rho	OCBS means	Correlation coefficient	1.000	.102
		Sig. (2-tailed)	.	.546
		<i>N</i>	37	37
	PSES means	Correlation coefficient	.102	1.000
		Sig. (2-tailed)	.546	.
		<i>N</i>	37	37

Discussion

For research question 1, the results indicated that principals in Dhahran's school district have a high level of self-efficacy as measured by the PSES. A high level of self-efficacy can be defined many ways. Principals with high levels of PSE can influence teachers' motivations and behaviors (Modlin, 1997); therefore, principals in Dhahran's school district could potentially influence their teachers' motivations and behaviors regarding school effectiveness. Additionally, because of their high level of PSE, principals in Dhahran's school district are more likely to pursue a comprehensive understanding of supervision and instructional leadership and openness toward teaching effectiveness. They may also be more willing to pursue higher educational goals for themselves and their teachers (Tschannen-Moran & Gareis, 2004). The high levels of PSE in Dhahran's school district may be associated with higher levels of well-being and job satisfaction as well as lower levels of principal burnout (Devos et al., 2006). A high level of PSE can be an important tool for improving a school's leadership qualities; for principals in Dhahran's school district, therefore, it would be advantageous to acquire and maintain proficiency in self-efficacy (Federici and Skaalvik, 2012).

For research question 2, results indicated that all three levels of schools had the same level of PSES scores. Therefore, there are no significant differences in the level of principals' self-efficacy as measured by the PSES between the elementary, middle, and high schools in Dhahran's school district. Typically, leader self-efficacy performs consistently between elementary and middle schools, and these schools are more likely to be influenced by school leadership than high schools are (Leithwood & Jantzi, 2008). However, in this study, only nonsignificant differences were found in the level of PSE between the three levels of schools. This result does not agree with the results of previous studies, and may thus add to the body of knowledge and research in this area.

Regarding research question 3, the results indicated that teachers in Dhahran's school district have a high level of organizational citizenship behavior as measured by the OCBS. High levels can be interpreted in many ways. A high level of OCB could be a result of the appreciation principals in Dhahran's schools show for their teachers' contributions and their concern for those teachers' well-being (Somech & Ron, 2007). High levels of OCB can also be a result of well-operated schools (DiPaola & Tschannen-Moran, 2001); this may indicate that most of Dhahran's schools are well operated. When there are high levels of teacher satisfaction at work, a high level of teacher OCB is often also present; this may suggest that Dhahran's school teachers are experiencing high levels of satisfaction in their work (Bogler & Somech, 2004). One outcome of school effectiveness is the performance by teachers of behaviors that exceed than their job description (DiPaola & Hoy's, 2005); in this study, the high level of teacher OCB might thus be an outcome of their school's effectiveness. A high level of the OCB of teachers could be a major component of effectiveness in their schools.

For research question 4, results indicated that all three levels of schools had the same level of OCBS scores. Thus, according to this study, no significant differences were found in the level of organizational citizenship behavior of teachers as measured by the OCBS were found between elementary, middle, and high schools in the Dhahran school district. The results based on this question are interesting. They show that among the three levels of schools, teachers' OCB level does not have an effect or change. Specifically, though the type of school may differ between school levels, teacher OCB appears to regularly behave in a particular way and to possess certain consistent characteristics.

For research question 5, the results indicated that in Dhahran's school district, principals' self-efficacy as measured by the Principals' Self-Efficacy Scale and organizational citizenship behavior of teachers as measured by the Organizational Citizenship Behavior Scale did not correlate at a statistically significant level, so the two variables had no significant relationship. There are several possible reasons of this result. First, there is a possibility that the teachers who participated in the OCB survey were primarily those with higher OCB, and the lack of teachers with lower levels of OCB may thus have affected the correlation between PSE and OCB. There may have been underrepresentation or overrepresentation (Gall, Gall, & Borg, 2007). Therefore, it may be that a higher concentration of teachers with higher OCB responded, thus making it difficult to find a statistically significant relationship between PSE and OCB. Second, we assume that there were too many variables between PSE and OCB, which made it challenging to test the relationship between PSE and OCB. Third, because no studies have done on PSE or OCB in Dhahran's school district, it may have been difficult for principals and teachers to respond in new concepts, even though the two instruments reached high reliability scores when first tested as well as after they had been distributed. Fourth, having a high OCB survey response rate from private school teachers but a low OCB survey response rate from public school teachers could affect the correlation result of this study. A possible explanation for the variation in OCB response rates between private and public

schools in Saudi Arabia is the differences between the human resource systems in those schools. The Ministry of Education oversees teachers in public schools. However, in private schools, principals are in charge of hiring and dismissing teachers. Consequently, private school principals have more authority than public school principals, and that could explain the higher response rates from private schools, because teachers might have felt that they were obligated to participate in the survey when their principal asked them to do so. In this case, the sample respondents may not have been representative or may have over- or under- represented the population. Fifth, the main purpose of this study is to find a statistically significant relationship between PSE and the OCB of teachers. However, self-efficacy and OCB are two different concepts, and in this study, the researcher tested these two variables between two different types of educators and two different positions. This may also explain why the result of this question was not correlated at a statistically significant level and the two variables had no significant relationship.

Limitations of the Study

This study has several limitations, which include the following: missing data, limited schools, low OCBS response rates, and use of a nonparametric test. This study did not attempt to make or determine the degree or direction of causality for any variable or effect. The truthfulness of the respondents is assumed but cannot be verified. The truthfulness and candor of the principals and teachers taking the two surveys was assumed but not verified. Although the respondents were advised that the survey was anonymous, some principals and teachers may have felt uncomfortable expressing their beliefs and opinions.

Recommendations for Further Research

The results of this study add to the literature and current research on the relationship between the self-efficacy of school principals and the organizational citizenship behavior of teachers. The current study simply addresses the relationship between principals' self-efficacy and organizational citizenship behavior of teachers. This study did not find any statistically significant relationships between PSE and the OCB of teachers; one of the possible reasons is that the sample of schools that participated in both surveys (the PSES and the OCBS) was small. Furthermore, the study involved only boys' schools because dealing with two different Educational Administration Departments in Dhahran's district—one for boys' schools; one for girls' schools—proved difficult. Therefore, generalizability is problematic. However, future studies that address the issues relating to generalizability by including more school districts that are fully representative of the Eastern Province of Saudi Arabia student population are warranted.

This study did not investigate the relationship between principals' self-efficacy and organizational citizenship behavior of principals. Since there has been a positive significant relationship between teachers' self-efficacy and their extra-role behavior towards the organization as the same participants, future research on the relationship between principals' self-efficacy and the organizational citizenship behavior of principals may be a rich area for further research.

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