

# **The Impact of Strength-based Leadership Coaching on Principals' Strength-based Leadership Competencies in Elementary Schools**

## **Abstract**

This study aims to examine the effect of strength-based leadership coaching on elementary school principals by employing a variety of research methods, including a quasi-experimental approach (specifically, a nonequivalent control group design) and a questionnaire. A total of 38 elementary school novice principals participated in the study utilizing a nonequivalent-control group design, with 19 assigned to the experimental group and another 19 to the control group. The experimental group received strength-based leadership coaching, while the control group did not receive this coaching. Subsequently, the researchers assessed the growth of principals' strength-based leadership competencies both before and after implementing the strength-based leadership coaching, aiming to confirm the coaching's impact. The main findings of this study are as follows: (1) The principals' strength-based leadership competencies are high. (2) After the introduction of strength-based leadership coaching, leadership competencies showed noticeable improvement, particularly in the domains of execution, relationship building, influence, strategic thinking, and creating hope. According to the findings, suggestions for the implementation and further studies are proposed.

*Keywords:* Strength-based leadership, coaching, elementary school principals

## 1. Introduction

Contemporary organizations encounter intense, dynamic, and complicated challenges in the domain of leadership behavior (MacKie, 2014; Psencik, 2019; Youssef & Luthans, 2012). Consequently, there is a growing demand for the ongoing professional development of principals (MacKie, 2014). Sustained professional development is clearly a necessity for any effective school leader (Chang, 2000). However, the professional development of principals frequently exhibits fragmentation and lacks a cohesive sense of progression (Louis et al., 2010; Southern Regional Education Board, 2010).

Principal coaching serves as a strategy to enhance student learning outcomes, decrease principal turnover rates (Grossman & Nagler, 2019; Hausner, 2018), and tackle the difficulties associated with principal professional development (Psencik, 2019). Research has demonstrated that “coaching” plays a pivotal role in the growth and development of school administrators and leaders (Carey et al, 2011; Day, 2001; Grant et al., 2010; Passmore & Fillery-Travis, 2011); however, it's uncommon to find the necessary support for implementing coaching-based professional development for principals (Hausner, 2018).

The most effective leaders are not necessarily those who possess expertise in all aspects of leadership behavior but rather those who have a clear understanding of their own strengths (Sutton, 2021). Furthermore, research suggests that the job performance of subordinates is more effective when leaders focus on their strengths rather than their weaknesses (Linley et al., 2007). Therefore, effective leaders are often acknowledged as those who can highlight their own strengths and harness the strengths of their team members, a principle known as strength-based leadership. The exploration and implementation of "strength-based leadership coaching", a combination of "principal coaching" and "strength-based leadership", hold significance in enhancing the professional development and school management of principals.

Only seven relevant studies have been documented so far in relation to strength-based leadership. Three studies examine the impact of strength-based leadership on both leaders and subordinates following its implementation (MacKie, 2013; Petrone et al., 2023; Ruethaivanich & Scott, 2017), while four studies investigate the significance, direct and mediating effects of strength-based leadership on various employee behaviors (Akter et al., 2021; Ding et al., 2020; Liu & Tong, 2022; Wang et al., 2023). However, no empirical studies regarding strength-based leadership coaching were conducted in Taiwan, highlighting the need for further research to explore its significance in this context. To investigate the impact of implementing strength-based leadership coaching, two research questions are addressed as follows:

1. What is the performance of strength-based leadership among elementary school principals?
2. What is the impact of implementing strength-based leadership coaching on a principal's strength-based leadership competencies?

## **2. Literature Review**

### **2.1 The Essence of Strength-based Leadership Coaching**

Strength-based leadership is a process of exercising influence. In this process, leaders recognize and understand their own strengths, as well as perceive, construct, expand, and utilize the strengths of their subordinates and the organization (Brun et al., 2016; Key-Roberts, 2014; Key-Roberts, & Budreau, 2012; Mind Tools Editorial Team, 2016, 2019; Wang et al., 2023). Moreover, subordinates are strategically positioned (Key-Roberts, 2014), and empowered to harness their potential (Mind Tools Editorial Team, 2016, 2019), while their weaknesses are constructively minimized and turned into challenge opportunities for growth. The primary objective is to achieve success for both individuals and organizations. (Brun et al., 2016; Key-Roberts, 2014).

Rath and Conchie identified successful team leaders possess a diverse set of strengths such as executing, influencing, relationship building, strategic thinking, trust, compassion, stability, and hope (2009). This study aligns with the findings of Ting & Yang (2021), we believe that strength-based leadership encompasses executing, influencing, relationship building, strategic thinking, and hope-creating.

### **2.2 The Essence of Principals' Strength-based Leadership Coaching**

Principals' strength-based leadership coaching is an individualized approach to assist principals in their professional learning and development (Hausner, 2018). This approach relies on establishing a trust-based partnership between external coaches and principals (Barnard, 1938; Roger, 2008). Through dialogues, feedback, support, and moderate challenges, it assists principals in recognizing their strengths, and cultivating the skills and approaches necessary for guiding teachers toward strength-based behaviors, ultimately inspiring both principals' strength-based leadership competencies and teachers' professional instructional performance (Barnard, 1938; Hausner, 2018; Roger, 2008).

MacKie (2016) identified six significant factors and variables, including coach characteristics, coachee characteristics, organizational characteristics, process variables, coaching methodology, and outcomes domains. In practical terms, the effective implementation of strength-based coaching requires a thorough understanding of the coach, the coachee, and the organization's characteristics. Additionally, the implementation process should consider relevant process variables, including aspects such as alliance, rapport, challenge, and empathy. The process and strategy for

implementing strength-based leadership coaching involve strengths identification, positive goal setting, strategic alignment, strengths development, career transition, and commitment to actions. The advantages resulting from coaching may include transformational leadership, strengths awareness, performance, insight, promotion, positive affect, retention, confidence, and extra effort (MacKie, 2016:127).

In addition, this study (Brun et al., 2016; Costa & Garmston, 2002; Ellison & Hayes, 2006; MacKie, 2016), after summarizing the research, found that the implementation process of principals' strength-based coaching should encompass: (1) pairing and relationship building, (2) identifying individual strengths, (3) selecting positive goals and confirming priorities, (4) developing specific leadership behavior strengths, and (5) reflection and feedback.

### **2.3 The Research on Principal Strength-based Leadership Coaching**

This study focuses on "strength-based leadership" and "strength-based leadership coaching". Through databases such as Airiti Library, EBSCO, Google Scholar, ProQuest, etc., two empirical studies related to "strength-based leadership coaching" were identified (MacKie, 2013; Ruethaivanich & Scott, 2017), along with five empirical studies related to "strength-based leadership".

Regarding research results, the findings are as follows:

1. Experimental Studies: The implementation of strength-based leadership (coaching) has been shown to enhance leaders' transformational leadership behaviors, strength-based leadership behaviors, strengths recognition, and affirmation for both self-leadership and employees (MacKie, 2013; Petrone et al., 2023; Ruethaivanich & Scott, 2017).
2. Correlational Studies: Strength-based leadership has a positive correlation with employee job performance and job engagement (Ding et al., 2020; Wang et al., 2023).
3. Mediating Effects: Regarding the impact of strength-based leadership on various related variables, certain mediating variables have been identified, including employee job-related well-being (Akter et al., 2021; Ding et al., 2020), employee strength utilization (Liu & Tong, 2022), employee job engagement, and leader-member exchange relationships (Wang et al., 2023).

## **3. Research Design and Implementation**

### **3.1 Research design**

This study employed a non-equivalent group pre-test/post-test design. As shown in Table 1, G1 and G2 represent the experimental group and the control group, respectively. O1 and O2 represent the pre-test measurements of strength-based leadership for principals in both the experimental and control groups before the

implementation of strength-based leadership coaching. "X" represents the experimental treatment, where principals in the experimental group received strength-based leadership coaching. O3 and O4 represent the post-test measurements of strength-based leadership for principals in both the experimental and control groups after the implementation of strength-based leadership coaching.

In this study, the independent variable is whether the principal received the implementation of principal strength-based leadership coaching. Specifically, principals who participated in the strength-based leadership coaching treatment as part of this study, from mid-November 2021 to May 2022, provided seven months of strength-based leadership coaching to the experimental group. Secondly, the dependent variable is the post-test scores of strength-based leadership for principals in both the experimental and control groups who participated in the experimental program. The pre-test scores of strength-based leadership for the principals who participated in the experimental program serve as covariance.

The experimental treatment of principals' strength-based leadership coaching involved sessions related to the principal's training and counseling in the experimental group starting from November 2021 including the following:

1. Training workshops: A 12-hour workshop on "Principals' Strength-Based Leadership Coaching Theory and Practice" was conducted over two days for the participating principals in November.
2. Counseling and guidance: An online community through Line, titled "Principals' Strength-Based Leadership Coaching", was established to provide ongoing consultation and guidance to the principals participating in the experiment, available at any time.

Table 1 Non-equivalent group pre-test/post-test quasi-experimental design

Group	Pre-test	Experimental Treatment	Post-test
Experimental (G1)	O1	X	O3
Control (G2)	O2	—	O4

### 3.2 Participants

The study began with 20 elementary school principals in both the experimental group from Taipei City and the control group from New Taipei City but eventually reduced to 19 participants in each group, all of whom were novice principals with less than four years of experience in the 2021 academic year. The researchers invited principals via phone or email to attend separate meetings, one for the experimental group and one for the control group, to explain the purpose and implementation details of the experimental program. Principals who volunteered and expressed interest were then invited to sign a consent form to participate in the study.

In addition, the questionnaire involved 152 teachers (8 from each school) from 19 elementary schools where the principals participated in strengths-based leadership coaching in Taipei City for the experimental group. Similarly, for the control group, there were 152 teachers (8 from each school) from the 19 elementary schools in New Taipei City where the principals were part of the study, totaling 304 teachers in the study.

### **3.3 Research Instrument**

#### ***Content and Structure***

This study utilized a questionnaire to measure the strength-based leadership of elementary school principals, primarily drawing from relevant research and literature (Brun et al., 2016; MacKie, 2013, 2016; Rath & Conchie, 2009; Whisenand & McCain, 2015). The questionnaire, titled “Elementary School Principal Strength-Based Leadership Questionnaire” comprises five subscales: (1) Executing (Items 1-6), (2) Relationship Building (Items 7-12), (3) Influencing (Items 13-18), (4) Strategic Thinking (Items 19-24), and (5) Hope-creating (Items 25-30), totaling 30 items.

#### ***Factor Analysis***

In this study, the “Elementary School Principal Strength-Based Leadership Questionnaire” consists of five factors: (1) Executing with factor loadings ranging from .53 to .64, explaining 13.78% of the variance. (2) Relationship Building with factor loadings ranging from .67 to .85, explaining 24.97% of the variance. (3) Influencing with factor loadings ranging from .43 to .58, explaining 11.44% of the variance. (4) Strategic Thinking with factor loadings ranging from .54 to .78, explaining 22.02% of the variance. (5) Hope-creating with factor loadings ranging from .52 to .70, explaining 16.95% of the variance. The total explained variance is 89.16%.

#### ***Reliability Analysis***

The overall Cronbach’s  $\alpha$  coefficient for the “Elementary School Principal Strength-Based Leadership Questionnaire” is 0.99. Additionally, the Cronbach’s  $\alpha$  coefficients for each domain are as follows: Execution (0.97), Relationship Building (0.97), Influencing (0.97), Strategic Thinking (0.97), and Hope-creating (0.98).

## **4. Result and Discussion**

### **4.1 The analysis of strength-based leadership competencies**

Table 2 shows the experimental group principals scored between 5.70 and 6.46 in areas like executing, relationship-building, influencing, strategic thinking, hope-creating, and overall strength-based leadership. On the other hand, control group principals scored between 5.96 and 6.18 on a seven-point scale. Using an average of 4.00 as a midpoint, scores from 4.00 to 5.00 were considered “fair”, 5.01 to 6.00 were considered “good”, and above 6.00 was considered “excellent”. The post-test performance of the experimental group principals was consistently “excellent”, while

the control group principals' post-test scores, except for "influencing", were also "excellent". This suggests that most elementary school principals currently demonstrate an "excellent" level of strength-based leadership.

In today's dynamic and complex society, leadership faces intense challenges (Psencik, 2019; MacKie, 2014; Youssef & Luthans, 2012). With the implementation of the Curriculum Guidelines of 12-Year Basic Education in 2019 in Taiwan and the high expectations placed on school principals in Taipei City and New Taipei City, school principals hold themselves to high standards, and as they continuously learn and grow, their leadership naturally improves. Therefore, it is reasonable to conclude from this study that most school principals demonstrate high strength-based leadership.

Table 2 Analysis of Elementary School Principals' Strength-based Leadership Competencies

Domain	Group	N	Pre-test		Post-test	
			M	SD	M	SD
Executing	Experimental	143	5.83	0.93	6.41	0.56
	Control	140	6.18	0.89	6.08	0.89
Influencing	Experimental	143	5.86	0.99	6.46	0.56
	Control	140	6.16	0.97	6.04	1.04
Relationship Building	Experimental	143	5.70	0.90	6.30	0.59
	Control	140	6.04	0.89	5.96	0.98
Strategic thinking	Experimental	143	5.71	0.94	6.37	0.56
	Control	140	6.16	0.87	6.09	0.93
Hope-creating	Experimental	143	5.70	0.99	6.39	0.56
	Control	140	6.05	0.99	6.02	1.08
Overall Strength Leadership	Experimental	143	5.76	0.89	6.38	0.52
	Control	140	6.12	0.87	6.04	0.94

#### 4.2 The analysis of the impact of strength-based leadership coaching

##### *Implementation of elementary school principals' strength-based leadership competencies*

As indicated in Table 3, it can be observed that following the implementation of strength-based leadership coaching, teachers' perceptions of the experimental group elementary school principals' strength-based leadership competencies showed significantly higher adjusted mean compared to those of the control group principals for the domain of "Executing" (F-value = 226.93,  $p < .001$ ), "Relationship-Building" (F-value = 195.59,  $p < .001$ ), "Influencing" (F-value = 187.96,  $p < .001$ ), "Strategic Thinking" (F-value = 214.63,  $p < .001$ ), "Hope" (F-value = 194.77,  $p < .001$ ), and "Overall Strength-Based Leadership" (F-value = 204.22,  $p < .001$ ), reaching statistical significance.

Table 3 Covariate Analysis Summary of the Impact of Strengths-Based Leadership Coaching

Domain	Group	Number	Adjusted Mean	F-value
Executing	Experimental	143	6.42	226.93***
	Control	140	6.09	
Relationship Building	Experimental	143	6.43	195.59***
	Control	140	6.01	
Influencing	Experimental	143	6.31	187.96***
	Control	140	5.98	
Strategic Thinking	Experimental	143	6.40	214.63***
	Control	140	6.12	
Hope-creating	Experimental	143	6.41	194.77***
	Control	140	6.02	
Overall Strength Leadership	Experimental	143	6.40	204.22***
	Control	140	6.01	

\*\*\* $p < .001$

In summary, the implementation of strength-based leadership coaching for school principals results in an overall improvement of strength-based leadership competencies. Specifically, significant statistical differences were observed in areas such as executing, relationship-building, influencing, strategic thinking, and hope-creating, indicating positive changes in strength-based leadership. This finding is consistent with prior research, which also suggests that strength-based leadership coaching has an impact on leaders' leadership competencies and behaviors (MacKie, 2013; Petrone et al.; 2023; Ruethaivanich & Scott, 2017).

Strength-based leadership coaching has an impact on leaders' transformational leadership behaviors, strengths awareness, performance, positive emotions, confidence, and so on (MacKie, 2016). Transformational leadership encompasses aspects such as shared vision, charismatic influence, inspiration, intellectual stimulation, and individual consideration (Bass & Avolio, 1990; Chang, 2006; Tsai, 2005). In addition, principal transformational leadership has a significant direct impact on school organizational innovation, such as in administrative management, organizational climate, and public relations (Wang, 2006) as well as enhancing the school's organizational climate and organizational effectiveness (Chin & Wu, 2009). Furthermore, whether it's school organizational innovation, climate, or effectiveness, all of these are associated with strengths in leadership qualities such as executing, relationship-building, influencing, strategic thinking, and hope-creating. Consequently, the research conclusion indicating that "strength-based leadership coaching has the potential to enhance principals' strengths-based leadership" appears highly plausible.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

The findings indicate that elementary school principals displayed a level of strength-based leadership competencies exceeding “excellent”. In addition, after the implementation of strength-based leadership coaching, there were significant differences in the performance of principals between the experimental group and the control group in the domains of “Executing”, “Relationship Building”, “Influencing”, “Strategic Thinking”, “Hope-creating”, and “Overall strength-based leadership competencies”.

### **5.2 Suggestions**

#### **1. Promoting principal strength-based leadership coaching**

Education administration authorities should proactively advocate for the adoption of strength-based leadership coaching by incorporating courses on strength-based leadership coaching theories and practices into the phases of pre-service, induction, and after-service, with the goal of enhancing the strength-based leadership competencies of principals.

#### **2. Using strength-based leadership competencies tools**

Principals of elementary and junior high schools make effective use of the “Principals’ Strength-based Leadership Competencies Scale” developed in this research. Through both regular and irregular self-assessments of their leadership, they can gain a deeper understanding of their strength-based leadership competencies, thus facilitating development and learning opportunities.

#### **3. Establishing professional learning networks**

Principals of elementary and junior high schools should proactively initiate the formation of cross-school or cross-city principal professional learning networks to facilitate collective learning on strength-based leadership among principals. Through sharing, exploration, dialogue, reflection, and learning among principals, they can effectively acquire the concepts and practical experiences of strength-based leadership coaching.

#### **4. Continuing ongoing relative empirical research**

Conducting ongoing empirical research on various aspects of strength-based leadership coaching to investigate the direct or indirect relationships between strength-based leadership coaching and variables related to schools, teachers, and students in the future. This will help gain a comprehensive understanding of the various influences and effects of strength-based leadership coaching.

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