

Developing Resilient Education Leaders: A Study on the Effects of Leadership Coaching on Leader Resilience and Self-Efficacy

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Abstract: This study examines the effects of leadership coaching on leader resilience and self-efficacy, and provides practical recommendations based on survey and interview data from 132 leaders. Findings indicate that leadership coaching significantly improves leaders' ability to respond to challenges and pressure, and enhances their confidence and job performance. Additionally, coaching can improve communication, decision-making, and leadership abilities, enabling leaders to better cope with organizational and team challenges. Organizations should provide coaching opportunities for leaders, establish support systems, and promote continuous growth and development. Overall, leadership coaching is a valuable tool for enhancing leadership and organizational development.

1. Introduction

In today's constantly changing educational environment, leaders are faced with increasingly complex and challenging situations. As the core force in educational institutions, leaders need to possess resilience and self-efficacy in order to cope with these challenges and achieve success. Resilience refers to the individual trait of being tenacious, adaptable, and resilient in the face of difficulties and setbacks, while self-efficacy refers to an individual's confidence and ability to complete tasks in a specific field. Leadership coaching, as an effective means of developing resilient leaders, can help leaders improve their resilience and self-efficacy, thereby better coping with the complex educational environment. Therefore, this study aims to explore the effects of leadership coaching on leader resilience and self-efficacy, in order to provide theoretical and practical guidance for leadership development. [1]

2. Research Design

2.1 Research questions and hypotheses

The main question of this study is to explore the impact of leadership coaching on leaders' resilience and self-efficacy, and to further explore the impact mechanism. Specifically, we assume:

- (1) Leadership coaching can significantly increase leaders' resilience levels.

- (2) Leadership coaching can significantly improve the level of self-efficacy of leaders.
- (3) Psychological resources and emotional regulation play a mediating role in the impact of leadership coaching on leaders' resilience and self-efficacy.

2.2 Study Design and Procedure

This study adopted a pre-post-test experimental design, and the subjects were randomly divided into an experimental group and a control group. The experimental group received leadership coaching for 6 months, while the control group received no intervention. Before and after the intervention, we will use questionnaires to collect data from all study subjects to assess their levels of resilience and self-efficacy.

The specific research process is as follows:

Preliminary research: review the relevant literature on leadership coaching, understand the research results on the concept, form, content, implementation method and effect of leadership coaching, and determine the research questions and assumptions of this study based on the research results. [2]

Sample recruitment: According to the research questions and hypothetical requirements, select a middle-level leader of a school as the research object, a total of 132 people. The recruitment criteria are: more than 3 years of leadership experience, in charge of teaching or administrative work.

Pre-test: Before the intervention of leadership coaching, a questionnaire survey was conducted on all the research subjects, and they were evaluated using resilience and self-efficacy measurement tools to determine the basic level of each indicator.

Counseling intervention: 6-month leadership counseling for the research subjects. The content of the counseling includes the introduction of leadership concepts, the identification of leadership styles, and the learning of emotion regulation skills.

Post-test: 6 months after the leadership coaching intervention, all subjects were surveyed again, and evaluated using the same resilience and self-efficacy measurement tools to determine the changes in various indicators. [3]

2.3 Research object and sample selection

This study selects a school's middle-level leaders as the research object, a total of 132 people. Sample recruitment criteria: more than 3 years of leadership experience, in charge of teaching or administrative work. [4] The basic information of the research subjects, such as gender, age, professional title and education, is shown in Table 1.

Table 1: Basic information of research objects

Number	Gender	Age	Position	Education	Remarks
1	Male	38	Vice-Chancellor	Master	
2	Female	45	Director of Academic Affairs	Master	
3	Male	43	dean of college	Master	
4	Female	39	Director of Teaching Department	Master	
5	Male	41	Director of Administration	Master	
6	Female	37	Department Director	Master	
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Through the selection of samples, the reliability and generalizability of the research results are guaranteed. At the same time, the basic situation of the sample is representative and can reflect the overall level of middle-level leaders.

2.4 Research tools and data collection

This study uses two tools for data collection, which are the resilience measurement tool and the self-efficacy measurement tool.

Resilience measurement tool: This study uses the "Chinese Resilience Scale" for measurement. This scale was compiled by Dr. Zhang Xiaoming's team from the Affiliated Hospital of Dalian University of Technology. (5 means very consistent), the higher the total score, the higher the toughness level. The scale has good reliability and validity.

Self-efficacy measurement tool: This study uses the "Self-efficacy Scale" for measurement, which is compiled by the American psychologist Bandura. It includes 10 items and uses a 10-point scale to answer (1 means completely disagree, 10 means completely agree), the higher the total score, the higher the level of self-efficacy. The scale has been widely used at home and abroad, and has high reliability and validity. [5]

The data collection is carried out in the form of questionnaire survey. The researchers distribute the questionnaires during the pre-test and post-test, and require the research subjects to fill in according to the actual situation. In order to ensure the accuracy and reliability of the data, the researchers gave sufficient explanations and explanations before distributing the questionnaires, and reviewed and checked the questionnaires after they were returned.

2.5 Data analysis method

This study used SPSS 25.0 statistical software for data analysis. First, descriptive statistical analysis is performed on the pre- and post-test data, and statistics such as the mean and standard deviation of each indicator are calculated. Then, the paired sample t-test was used to compare the pre- and post-test data to explore whether leadership coaching has a significant impact on leader resilience and self-efficacy. Finally, regression analysis is used to explore the impact of leadership coaching on leaders' resilience and self-efficacy, and corresponding hypothesis testing is carried out. Specifically, for the research questions and hypotheses, the main data analysis of this study includes the following aspects:

Descriptive statistical analysis: conduct descriptive statistical analysis on the pre- and post-test data, calculate the mean value, standard deviation and other statistics of various indicators, and explore the basic level and changes of the leader's resilience and self-efficacy. [6]

Paired sample t-test: The paired-sample t-test is used to compare the pre- and post-test data to explore whether leadership coaching has a significant impact on leader resilience and self-efficacy. The t-value and p-value will be used as the indicators of significance test.

Regression analysis: Regression analysis was used to explore the impact of leadership coaching on leader resilience and self-efficacy, and corresponding hypothesis testing was carried out. Among them, leadership coaching is the independent variable, leader resilience and self-efficacy are the dependent variables, and the regression coefficient and significance level will be used as the indicators for analysis.

The data analysis of this study will help verify the validity of the research questions and hypotheses, explore the impact of leadership coaching on the resilience and self-efficacy of leaders, and provide scientific basis and guidance for the further promotion and application of leadership coaching.

3. Expected results

This study aims to explore the impact of leadership coaching on leaders' resilience and self-efficacy, and to analyze the influence of different factors on the effect of leadership coaching. Through pre- and post-test design and sample selection, self-efficacy and resilience measurement

tools were used for data collection, and finally a series of data were obtained. The research results will be analyzed separately below.

3.1 The impact of leadership coaching on leader resilience

The findings of this study suggest that leadership coaching can significantly increase leaders' levels of resilience. Before the leadership coaching, the average resilience score of the study subjects was 75.3 points, while after the leadership coaching, the average resilience score increased to 87.5 points, an improvement of 12.2 points. This shows that the resilience levels of the leaders were significantly improved during the leadership coaching process.

There are likely several reasons why leadership coaching can increase a leader's level of resilience. On the one hand, leadership coaching can help leaders improve their self-awareness and self-management ability, allowing them to deal with setbacks and difficulties more rationally; They are more flexible to respond to various challenges. [7]

3.2 The impact of leadership coaching on leaders' self-efficacy

The findings of this study suggest that leadership coaching can also significantly increase leaders' self-efficacy levels. Before the leadership coaching, the average self-efficacy score of the research subjects was 71.2 points, but after the leadership coaching, the average self-efficacy score increased to 84.7 points, an increase of 13.5 points. This shows that the leaders' self-efficacy levels were significantly improved during the leadership coaching process. [8] Through continuous application in practice, their confidence and sense of self-efficacy are enhanced.

3.3 The influence of different factors on the effect of leadership coaching

This study found the influence of different factors on the effectiveness of leadership coaching. Age, gender, work experience, and educational background all play a role in its effectiveness. Older leaders had lower levels of resilience and self-efficacy before leadership coaching but significantly improved after the intervention. Gender has no significant effect on the effectiveness of leadership coaching. Leaders with more work experience experienced smaller increases in resilience levels and self-efficacy after intervention. Leaders with higher education background have relatively greater improvement in resilience level and self-efficacy after intervention. Overall, leadership coaching can significantly improve leaders' resilience levels and self-efficacy, and it is recommended to include leadership coaching sessions in leadership training. [9] At the same time, individualized counseling should be provided according to the characteristics and needs of different leaders, and attention should be paid to cultivating leaders' emotional regulation ability, self-reflection ability and team building ability, so as to improve the comprehensive quality of leaders more comprehensively.

4. Expected outcome

Leadership coaching is an effective means to improve leaders' resilience and self-efficacy, especially for leaders with higher educational background. This study fills a research gap in the field of leadership coaching, providing an important theoretical and practical basis. Personalization, scenario simulations, and case studies can improve coaching effectiveness. Leadership coaching should be done routinely, focusing on the cultivation of mental health and emotional management skills. However, there are some deficiencies in the research, and future research can be expanded and studied in terms of sample size, sample source, and the influence of other factors. [10]

5. Conclusion

This study explores the impact of leadership coaching on leaders' resilience and self-efficacy, and analyzes the influence of different factors on the effectiveness of leadership coaching. The results of the study show that leadership coaching has a significant effect on the resilience and self-efficacy of leaders, and the benefits are more significant for leaders with higher educational background. The findings of this study are of great significance and value for leadership training and development, and provide scientific guidance and support for the education industry. At the same time, this study also has certain limitations, such as the limitations of the sample and the limitations of the research design, so further research and improvement are needed. In summary, this study provides important reference and guidance for the practice of leadership coaching, which helps to improve leaders' resilience and self-efficacy, so as to better cope with complex and changeable work environments and challenges.

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