

Effect of Teacher Leadership on Students' Learning Outcomes in Vocational Colleges

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Abstract: In the process of the formation and development of teacher leadership thought, the direction of solving the obstacles to the effective realization of teacher leadership and serving the current school leadership practice is very clear, so the theory of teacher leadership should be built on a series of empirical studies. Therefore, this paper mainly analyzes and studies the influence of teachers' leadership on the learning effectiveness of students in vocational colleges, and through redefining the concept of teacher leadership, analyzes its constituent elements, roles and functions to enrich and develop teacher leadership. Related theories. The experimental results show that the factors that affect the realization of teachers' personal influence in the school are ranked. The result is that "school leaders' recognition of teachers' leadership" ranks first, and the selection rate is 37.4%, and "good personal character and charm" ranks first. In the second pick, the selection rate is as high as 38.1%.

1. Introduction

There are more and more studies on the connotation of college teachers' teaching leadership, and they have gone through a process from vague to slowly clear. Generally, when studying the connotation of college teachers' teaching leadership, the main focus is on empowering teachers and teachers' professional development. And the three aspects of teacher empowerment are studied. So far, there is no recognized meaning of college teacher leadership. Most researchers focus on the status and performance of college teacher leadership. The reason for this has a certain relationship with the openness of the word, and it the connotation and denotation are constantly expanding, so it is difficult to grasp accurately [1, 2].

Through interviews and focus groups, Paretti et al. explored the engineering-specific benefits that teachers and students achieve by integrating communication tasks into engineering curricula [3]. Conclusion: Teaching communication can potentially support engineering learning through assignments that prompt students to select information in a manner consistent with disciplinary values and stakeholder needs, and to make and justify decisions about approaches and solutions in a manner that demonstrates sound engineering judgment its rationality. The Zer study analyzed the attitudes, motivations, and anxiety levels of students enrolled in a vocational English program at the

School of Tourism at a state university [4]. Data were collected using the Attitudes to Vocational English Curriculum Scale, the Foreign Language Classroom Anxiety Scale (FLCAS), and the Attitude/Motivation Test Battery (AMTB).

First of all, this study clarifies the relevant concepts of teacher leadership through the literature review of domestic and foreign teacher leadership theories and the factors that affect the effective realization of teacher leadership, analyzes the theoretical basis of the research, and analyzes the theory of distributed leadership practice and non-distributed leadership practice. The relevant knowledge of power teacher leadership is introduced in detail. The construction of college teachers' leadership should pay attention to the positive role of the effective implementation of college teachers' leadership. In the long run, if schools are to be able to improve sustainably, some deep-rooted practices must be broken, so that colleges and universities can completely change their appearance and establish a cooperative mechanism within colleges and universities. Teachers should be empowered to take leadership and exercise leadership.

2. A Study on the Effect of Teacher Leadership on Students' Learning Outcomes in Vocational Colleges

2.1. Teacher Teaching Leadership

2.1.1. Comparison of Teachers' Teaching Leadership and Teachers' Teaching Ability

Teachers' teaching ability and teaching leadership are similar in that they are both goal-oriented and necessary for teachers to engage in teaching work. There is a certain overlap between the two, but teaching leadership is higher than teaching ability, teaching ability is an individual resource that teachers can exert and use in teaching practice, and teachers' teaching leadership also has the "joint force" between teachers and students' subject and object towards the future goals of the organization, and ability only exists in the teacher's subject. On the other hand, leadership focuses more on the interaction between teachers and students. Only the main body of teachers has to exert "influence" on students to make students move towards the goal, and students also "accept" or "resist" the "influence" of teachers. "Power, that's called leadership. It can be said that teachers with teaching ability do not necessarily have teaching leadership, but those with teaching leadership must have excellent teaching ability. It can be said that teaching leadership is the core ability of teachers, leadership, a kind of professional influence and guidance Group members do the right thing, it is a kind of charisma and cohesion [5, 6].

2.1.2. Comparison between Teachers' Teaching Leadership and Teachers' Teaching Competence

As a leader in any industry, first of all, you must be able to do the job and be the best in all aspects of this field, in order to lead the team and influence the team. Therefore, leadership includes competency. The premise of leadership is to have the competency qualities required for work. Teachers' teaching leadership is a synthesis of the elements of teachers' competent teaching work. Then, both the teacher's teaching leadership and the teacher's teaching competence put forward higher requirements on the knowledge, skills, personality and other aspects that teachers need for teaching. Teachers who act as teaching leaders must first be competent in teaching work.

2.1.3. Teachers' Teaching Leadership and Teachers' Teaching Management Ability

Both teaching leadership and teaching management belong to the category of education management. Both of them essentially use their own and objective conditions to improve students'

academic achievement and the sustainable development of the school as the ultimate goal, but management ability is not the same as leadership, management is a method, and leadership is an art. The former object can be a comprehensive system such as people and resources, while the latter focuses on people, one is mandatory obedience, and the other is follow-up ideological influence. Teachers with excellent management ability may not necessarily have excellent teaching leadership, but excellent teaching leadership must be premised on excellent teaching ability [7, 8].

2.2. Teaching Leadership Model of College Teachers

The constructed model is analyzed below.

Table 1: Teaching leadership model of college teachers

Instructional Leadership Traits	Responsibility, Integrity, Active Learning, Interest in Professional Research, Desire for Teaching Achievement, Teaching Influence, Teaching Cohesion, Self-confidence, Perseverance, Diligence, Concentration, Self-control, Teaching Decision-Making
Teaching Leadership Skills	Teaching resource management, teaching work planning, flexibility, understanding of majors and course objectives, professional knowledge and skills, comprehensive generalization ability, teaching design strategies, communication skills, teaching cooperation
Teaching Leadership Values	Caring for students, respecting students, logical generalization ability, critical thinking, teaching innovation

2.2.1. Teaching Leadership Characteristics

The leadership characteristics of college teachers refer to the personal characteristics of teachers. The personal characteristics of teachers are both dominant and potential, which are divided into 13 secondary indicators. Among them, the sense of responsibility and fairness and integrity can be said to be the most basic requirements and qualities for teachers to engage in teaching work and even the teaching profession, clarify their own sense of mission, set an example for others in academic research and life, and form an ethics in the teaching process. and moral influence, leading the development of teaching [9, 10].

2.2.2. Teaching Leadership Values

Leadership values include caring for students, respecting students, logical generalization ability, critical thinking, and teaching innovation, among which the discriminating characteristics are caring for students, teaching innovation and critical thinking. It is a college teacher's view on the significance of college teaching as a teaching leader, an understanding of the focus of college teaching, and a weather vane for college teachers to lead and influence students' learning and development and college reform and development. It can be summarized as student-oriented and Innovation orientation, that is, the teaching of colleges and universities should be student-oriented, promote students' learning and development, implement teaching with an innovative and open attitude, have a positive impact on professional disciplines and society, and naturally form a leadership for teaching work and students. Role and leadership.

2.2.3. Teaching Leadership Skills

Effective teaching leadership skills are the ability to optimize the teaching process. Specifically,

it is the ability to rationally arrange the teaching process, mainly to solve the relationship between the conditions, methods and results of the teaching process, and to improve the teaching process in the systematic connection and structure of the teaching process. Guiding and cultivating students, theoretical and practical teaching, teaching skills, teaching methods, etc. are all teaching abilities that college teachers have in the actual teaching process. The exertion of these teaching skills can be more conducive to their teaching leadership [11, 12].

2.3. Algorithm Research

The basic idea of classical measurement theory is to regard the observed value as a linear combination of the true value and the error. The error model is:

$$X = T + E \quad (1)$$

Among them, X observed value, T true value, E error.

The model assumes that the mean of E is 0 and that E and T are independent. Derived from this:

$$\sigma_X^2 = \sigma_T^2 + \sigma_E^2 \quad (2)$$

Among them, σ_X^2 represents the observed value variance, σ_T^2 represents the true value variance, and σ_E^2 represents the random error variance.

The reliability coefficient is defined as:

$$R = \sigma_T^2 / \sigma_X^2 \quad (3)$$

In the above formula, σ_X^2 and σ_T^2 are the overall variance, and the reliability coefficient is also about the overall reliability, which we call the overall reliability coefficient.

3. Teacher Leadership Model Research

3.1. O*NET Content Model

The six categories of indicators in the O*NET content model have the following meanings:

(1) Incumbent characteristics—enduring traits that affect both job performance and the ability to acquire knowledge and skills necessary for effective work. Indicators in this category include: Abilities—enduring traits that affect individual performance; Career Interests—Preferences for the work environment. The Career Interest Scale is consistent with Holland’s Model of Personality Types and Work Environments; Career Values—ability The overall aspect of a job that meets an individual's specific needs; work style—a personal trait that affects an individual's job performance.

(2) Job requirements—job-related traits acquired and developed through education and experience. Indicators in this category include: Fundamental skills - the ability to facilitate learning or faster acquisition of knowledge; Cross-functional skills - the ability to promote job performance across occupations; Knowledge - the organizational facts and Collection of Principles; Education—The educational experience required to perform a job.

(3) Experience Requirements - Requirements related to previous work activities and clearly linked to a specific type of work. Such indicators include: Experience and training - if someone is to be hired for the job, what are the requirements for the following - basic skills and cross-functional skills; certifications that demonstrate that the incumbent has acquired specific skills License, certificate or registration.

(4) Occupation-specific requirements—this category includes: tasks—specific occupational tasks; tools and techniques—machines, equipment, tools, software, and information technology that the

incumbent may use to achieve optimal results in the job.

(5) Labor force characteristics—refers to the overall occupational characteristics variables that may affect occupational requirements. Such indicators include: labor market information - the current labor force characteristics of the occupation; occupational outlook - the future labor force characteristics of the occupation.

(6) Occupational Requirements—Describe a broad set of variables or detailed elements required by various occupations.

3.2. Research on Teachers' Teaching Leadership Model

At present, the models of teacher teaching leadership mainly include the Refus teacher teaching leadership development model, York Barn and Duke's teacher leadership, and the Sagiovanni five force model of teacher leadership. The following three models will be introduced in detail.

(1) Refus Teacher Teaching Leadership Development Model

Refus developed a model of teacher instructional leadership through a survey of 81 schools, as shown in Figure 1.

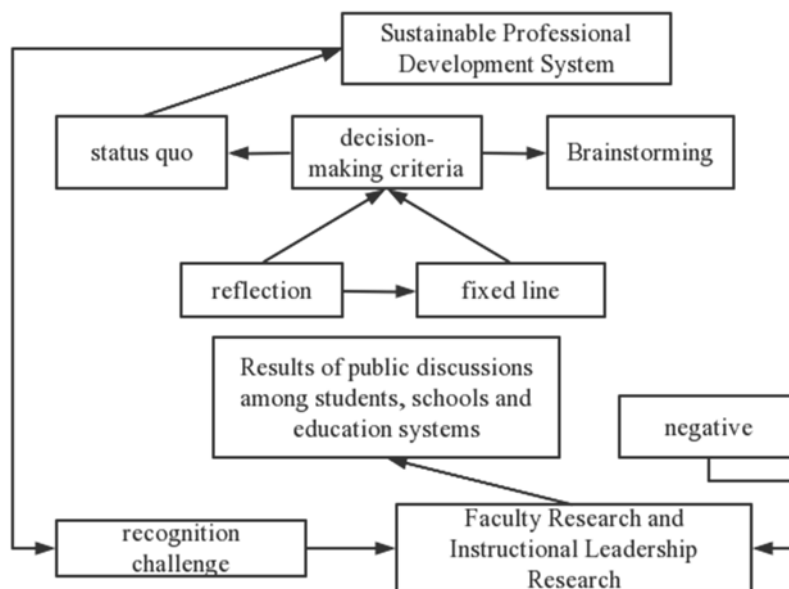


Figure 1: Refus Model for Teacher Instructional Leadership Development

Rivers believes that the development of teachers' instructional leadership is a systematic and circular process: identifying practical problems, collaborative reflection, fact-based decision-making and guiding teacher research. The results of the study show that when teachers engage in educational practice, through peer imitation and teacher-to-teacher sharing, student achievement improves significantly.

(2) York Barn and Duke's Teacher Leadership Model

York Barn and Duke's model of teacher leadership includes characteristics of teacher leaders, styles of leadership, environments that support teacher leaders' work, teacher leaders' paths to influence teacher-student learning (including ways, goals, and effects) and student learning change .

Yorkbahn and Duke believe that teacher leadership is the process by which teachers can effectively improve teaching and enhance student learning by taking an individual or team approach to influence peer teachers, principals, and other school members. Yorkbahn and Duke believe that teacher leaders must be teachers who are respected by peer teachers and management; have the potential to develop leadership knowledge and skills; teachers agree that the work of teacher leaders is valuable, visible, negotiable, and Sharing; the school's supportive environment is also critical,

and teachers need the necessary time, resources and opportunities to lead. Yorkbahn and Duke's model of teacher leadership is a student-centered analytical framework that has important implications for our research.

(3) The Five Forces Model of Teacher Leadership by Sa Giovanni

Sacciovani proposed the Five Forces Model of Excellent Educational Leadership and identified five leadership forces: technical leadership, interpersonal leadership, educational leadership, symbolic leadership and cultural leadership, as shown in Figure 2.

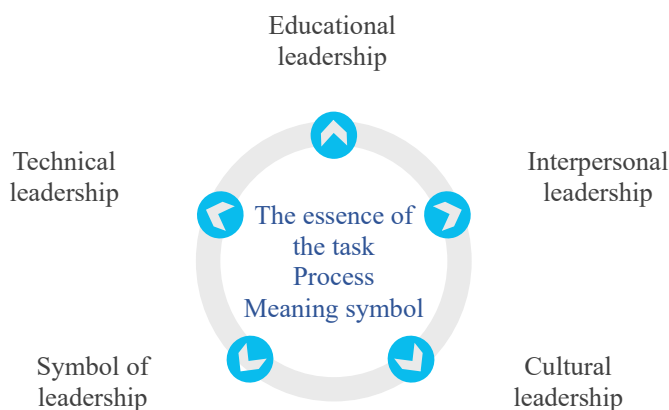


Figure 2: Sagiovanni's Five Forces Model of Teacher Leadership

Educational strengths relate to the professional aspect of education and are leaders in knowledge about the curriculum, learning theory and effective teaching and learning. Symbolic leadership is when leaders communicate with students, parents and other teachers to provide a vision for the school. And technical, interpersonal, and educational leadership are fundamental forces necessary to keep schools running.

4. Experiment Analysis of Teacher Leadership Model

4.1. Dimensional Analysis of Teacher Leadership

Based on the content of the items contained in the three factors of the questionnaire, similar phenomena are summarized into the four dimensions that constitute teachers' leadership, namely teachers' self-cognitive ability, professional leadership ability, ability to lead cooperation and teacher participation. Four dimensions of competence in school affairs. Through manual coding and computer grouping, we obtained the frequency of factors that affect the effective realization of the four dimensions of college teacher leadership. The frequency of qualitative data in the four dimensions is as follows:

Table 2: The distribution of data in each dimension on primary coding

Primary coding	Self-awareness	Professional leadership competencies	Ability to lead collaboration	Ability to participate in school affairs	Total
Frequency	31	33	29	43	136
Percent	22.80%	24.26%	21.32%	31.62%	

As can be seen from Figure 3, through the analysis of the data obtained from the factors that affect the realization of teachers' self-cognitive ability, the following key words and sentences appear repeatedly in this dimension: insufficient understanding of teachers' leadership, school

leaders' lack of understanding of teachers' opinions. Insufficient attention, lack of teacher leadership training, lack of teachers' awareness of their own leadership, not fully exploring their potential capabilities, and lack of teachers' willingness to participate in school decision-making. From the teachers' statements, it can be clearly felt that they have insufficient awareness of teacher leadership, and their willingness to participate is not obvious.

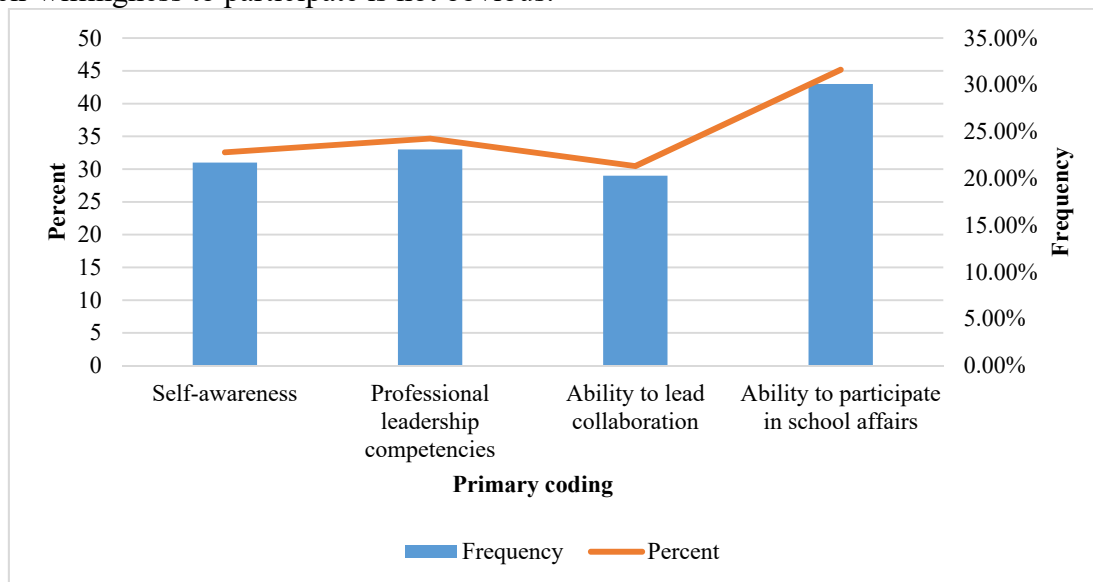


Figure 3: Dimensional data distribution analysis

4.2. Analysis of the Realization of Teachers' Personal Influence

The specific impacts are shown in the table below:

Table 3: Ranked by the degree of importance (%) of influencing teachers' personal impact in schools

Options	result	Composition ratio
School leaders recognize teacher leadership	first pick	37.4%
good personal character and charisma	second overall	38.1%
good school system culture	third overall	36.3%
Good personal professional teaching and academic research ability	fourth overall	26.9%

As can be seen from Figure 4, after sorting the factors that affect the realization of teachers' personal influence in the school, the result of "the recognition of teachers' leadership by school leaders" ranks first, and the selection rate is 37.4%, and "good personal influence" ranks first. "Character and Charm" ranked second, with a selection rate of 38.1%, and this item ranked second in the first ranking with a high selection rate of 33.1% "good school system culture" and "good school system culture" and "good Personal professional teaching and academic research ability" ranked third and fourth respectively. The results show that the attitude of school leaders to teacher leadership has a crucial impact on the realization of teacher leadership. At the same time, the sample teachers also fully affirm that teachers' own good character and comprehensive quality are also important for teachers' leadership to play a positive role. Impact.

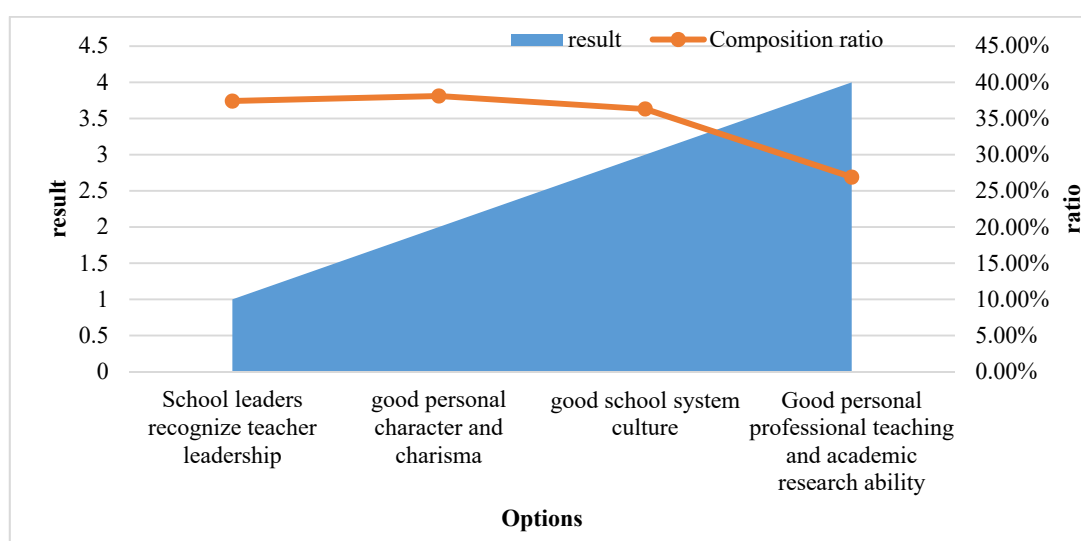


Figure 4: Ranking of the importance of teachers' personal influence realization

5. Conclusions

Leadership and change are closely linked. Whether an organization can develop and succeed in a complex and changeable environment depends largely on the quality of leaders. Leaders can lead the organization to achieve goals efficiently and effectively. Ensuring that work is done efficiently, it is the leaders who make the organization work. Under the background of advocating the gradual decentralization of the principal's educational leadership and the transformation of educational concepts, in view of the high similarity between teaching activities and leadership activities and the leadership characteristics of teachers' roles, teachers' teaching leadership has gradually become the focus of educational leadership research and has become an educational leadership. a micro-level. The research on teachers' teaching leadership must also be based on the research on teachers' teaching leadership to enrich the construction of the discipline of educational leadership.

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