The Influence of University Presidents' Teaching Leadership on Teachers' Professional Learning Community—The Mediating Role of University Atmosphere in China

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Abstract: Through literature review, this study constructs a theoretical model of the impact of principals' teaching leadership on teachers' professional learning community, and puts forward five hypotheses. Then, based on the reference of foreign questionnaires, the questionnaire was compiled to investigate 210 college teachers in the humanities College of Nanshan University in Yantai, Shandong province, and 197 valid sample data were obtained. Finally, SPSS 17.0 and AMOS 23.0 statistical software, independent sample t test, one-way analysis of variance, structural equation model and Bootstrap intermediary analysis were used to explore the development status and differences of teacher professional learning community. This paper further analyzes the relationship between principals' teaching leadership and teachers' professional learning community, and examines the mediating effect of school atmosphere on them. This paper defines the principal's teaching leadership, the school atmosphere and the teacher's professional learning community, and adopts a widely used scale with good reliability and validity. After selecting the scale, item analysis and reliability and validity analysis were carried out to form the formal questionnaire used in this study. Frequency and percentage, weighted average, deviation test of common methods, structural equation model (SEM), standard deviation, t test and other statistical tools were used to statistically process the data. The data was set to a significance level of 0.05. If the calculated value is greater than the set significance level of 0.05, the null hypothesis is accepted. Otherwise, no. The research shows that the principal's teaching leadership, school atmosphere and professional learning community have no significant influence on each other.

Keywords: Teaching Leadership; Learning Community; University Atmosphere

1. Introduction

Teacher efficacy is an important variable to measure teachers' mental health, which reflects teachers' judgment of their teaching ability and confidence in teaching results. Empirical research shows that teachers' teaching efficacy can regulate the impact of occupational stress on job burnout, and teachers with high teaching efficacy tend to choose positive coping styles when facing occupational stress, which can reduce their job burnout. In the current process of deepening education reform, we can not focus on the macro level of policy and system, and the micro level of teaching leadership and curriculum leadership can not be ignored. As the main organizer and participant of teaching activities, teachers' teaching behavior has a direct impact on the quality of classroom teaching. Therefore, to build a high quality teacher team, we can start from improving teachers' teaching efficacy. The teacher's teaching efficacy is inseparable from the principal's effective teaching leadership, that is, the principal plays an important role in the field of teaching management. The principal is in the central position of school leadership, and his leadership style will affect the overall atmosphere of the school organization, and his leadership effectiveness will also have an important impact on the thoughts and behaviors of the members of the organization. Principals assume the role of teaching leadership, provide necessary guidance and help to teachers, and make teachers become active promoters of teaching reform, which is also a factor that cannot be ignored in the process of deepening teaching reform.

2. The Problem

In 2019, China promulgated the "China 2035" education modernization plan, explicitly stating the need to strengthen the construction of the teacher professional development system, promote lifelong

learning and professional independent development among teachers, and cultivate high-quality, professional, and innovative educators, which indicates that teacher professional development no longer only focuses on training teachers' teaching skills and methods, but pays more attention to teachers' professional autonomy [1]. Therefore, the development of teacher professional learning community, as the main organizational form of teacher cooperation, exchange and practice sharing, has important practical significance. First of all, teachers' professional learning community requires teachers to seek solutions to problems through professional organized learning activities on the basis of their own professional experience and exert their subjective initiative [2]. Secondly, teachers' professional learning community requires mutual trust and respect among teachers [3]. Finally, teacher professional learning community emphasizes collective shared knowledge, which cannot rely on inculcated teacher training, but is new knowledge generated on the basis of teachers' independent learning, reflection and exploration, and collaboration and sharing [4]. All in all, the cooperative learning style and sharing cultural atmosphere of teacher professional learning community are of great significance to teacher professional development. Teachers' professional learning community ensures that teachers' learning activities are truly used by teachers, enables teachers to conduct dialogue and cooperation with each other in an interactive atmosphere in the research group, explore teaching laws with a scientific and rigorous attitude, and effectively integrate their own experience, knowledge and ability, so as to achieve the purpose of promoting their own development.

3. Significance of the Study

First, this study provides practical suggestions for the development of teacher professional learning community. Although the concept of "teacher professional learning community" is imported, the cooperative learning organizations of teachers such as teaching and research group, lesson preparation group and grade group have a long history in China[5]. A series of empirical studies by Western scholars have proved that teacher professional learning community plays an important role in promoting teacher development, improving student learning and enhancing school efficiency.

Therefore, this study provides targeted countermeasures and suggestions on how to deeply transform and develop the existing professional learning communities for teachers (art and design department, public sports Department, foreign Language Department, etc.) and make them have the key characteristics of professional learning communities for teachers.

Secondly, this study reveals the influence mechanism of principals' teaching leadership on teachers' professional learning community by means of empirical research, and explores the role of school atmosphere in it[6]. On the one hand, it can increase people's cognition of the teaching leadership of university presidents, school atmosphere and the status quo of teachers' professional learning community; On the other hand, it helps to strengthen the understanding of the role of principals' teaching leadership in promoting the development of teachers' professional learning community, and provides targeted practical suggestions for education managers[7].

4. Research Hypotheses

Based on the existing research, this study focused on sorting out that:

There is no significant relationship between the principal's teaching leadership and teachers' profession in Yantai Nanshan University.

5. Research Design

(1)Population, Sample and Sampling Technique

In this study, a total of 210 paper questionnaires were distributed to the School of Humanities, Nanshan University, Yantai, Shandong province, and 208 were recovered. Eleven invalid questionnaires (repeated answers or missing answers) were excluded, and a total of 197 valid questionnaires were collected, with effective recovery of 93.8%. Meet the statistical requirements.

A. Sample interviewer-teachers of the Art and Design Department -70

B. Sample respondents - teachers of the Foreign Language Department - 44

C. Sample respondents - Faculty of The Department of Chinese Language and Literature - 29

D. Sample respondents - teachers of the Department of Public Physical Education - 70

E. Sample respondents - teachers of the Public English Department - 70

Total number of subjects =197

(2)Research Instrument

Based on a comprehensive review of relevant literature, this study operationally defined principals' teaching leadership, school climate and teachers' professional learning community, and adopted a widely used scale with good reliability and validity. After selecting the scale, the scale was processed through item analysis and reliability and validity analysis, and the formal questionnaire used in this study was finally formed.

Principal teaching Leadership Scale

The Principal Instructional Leadership questionnaire was designed by Hallinger et al. (PIIVVIRS teacher version) and revised by Shengnan Liu. The questionnaire consisted of 3 dimensions and 22 items. The 5-point scoring method was adopted, from "1" to "5" were almost never, rarely, sometimes, frequently and almost always, respectively. The higher the score was, the higher the frequency of the occurrence of the principal's teaching leadership behavior was. The questionnaire includes three dimensions: clear school goals, management of teaching plans, and creation of positive school ethos.

The specific meanings are as follows: Confirm common goals refer to principals working with all faculty and staff to ensure that the school has clear and measurable goals and pay attention to students' academic progress; Management teaching plan refers to the principal's coordination and control of school teaching and curriculum. The principal's teaching leadership function focuses on using feedback as a means to develop teachers' teaching ability. Creating positive school atmosphere means that the principal can not only ensure sufficient teaching time for teachers, but also promote teachers professional development, rewarding teachers, maintaining high expectations and providing learning incentives, and shaping values And practice, creating an atmosphere that supports continuous improvement in teaching and learning.

Teacher Professional Learning Community Scale

The teacher Professional Learning Community questionnaire was developed by Leithwood and revised by Yin Hongan. The questionnaire contains 18 questions and uses a 5-point scoring method. From "1" to "5", they are totally disagree, disagree, generally agree, somewhat agree and completely agree respectively. The higher the score is, the higher the development level of teacher professional learning community is. The scale includes five dimensions: shared goals (a coefficient of 0.84), cooperative activities (A coefficient of 0.87), shared practices (A coefficient of 0.80), attention to students' learning (A coefficient of 0.81) and reflective dialogue (A coefficient of 0.78).

The specific meanings of each dimension are as follows: Shared goals refer to teachers' cognition of the school's common goals; Cooperative activities refer to the teaching exchange activities between teachers; Attention to student learning refers to the extent to which the teacher's work directly contributes to student learning; Sharing practice refers to how teachers observe other colleagues' teaching and provide feedback; Reflective dialogue refers to how often teachers communicate with each other about relevant teaching and student learning issues.

School atmosphere Scale

The school climate scale was developed based on the reference of existing research, and then tested the questionnaire. The final form of the formal survey questionnaire.

Firstly, literature retrieval was conducted, and the School Climate Scale was prepared based on the Middle School Organizational Climate Scale prepared by Pan Xiaofu in 2014.

Secondly, three graduate students of pedagogy were selected to adjust and modify the language expression of the questionnaire, and the revised draft of the questionnaire was formed by interviewing 7 primary and secondary school teachers. Finally, three experts in the field of pedagogy and psychology evaluated the suitability and relevance of the project. After the evaluation, questionnaires were tested and data were collected.

(3)Decision Criteria

The data were statistically processed using the following statistical tools: frequency and percentage, weighted average, common method deviation test, structural equation model (SEM), standard deviation

and T test. The data was set at a significance level of 0.05. If the calculated value is greater than the set significance level of 0.05, the null hypothesis is accepted. Otherwise, they were rejected.

6. Results, Analysis and Interpretation of Data

Here are the results of the data collected and analyzed in accordance with the statement of the problem. Gender, age, years of teaching experience, professional titles, teaching subjects, highest degree attained, teachers' assessment of principals' leadership performance, school climate, evaluation of professional learning communities, evaluation differences when teacher assessment is used as a test factor, the relationship between principals' leadership performance and school climate, and the relationship between principals' leadership performance and professional learning communities are all presented here.

(1)Profile of the Teacher Respondents

First is the frequency distribution of interviewed teachers in terms of gender, age, number of years of teaching, title, teaching subject, and highest qualification.

Age. Thirty-two (32) or 16.2% of the respondents are 20-30 years old, seventy five (75) or 38.1% are within the age groups of 31-40 years old and 41-50 years old respectively, and fifteen (15) or 7.6% are 51 years old and above. This goes to show that most of the respondents more than 30 years old but not over 50 years old.

Sex. One hundred five (105) or 53.3% of the respondents are male, while ninety two (92) or 46.7% are female. This indicates that majority of the respondents are male.

Number of Teaching Years. Forty five (45) or 22.8% of the respondents have been teaching for less than 5 years, fifty one (51) or 25.9% for about 5-10 years, ninety two (92) or 46.7% for 11-15 years, and nine (9) or 4.6% for about 16-20 years. This shows that most of the respondents have been teaching for more than ten years.

Job Title. Fort five (45) or 22.8% of the respondents are holding the title of Assistant Professor, and Lecturer respectively, ninety one (91) or 46.2% are Associate Professor, and sixteen (16) or 8.1% are Professor. This goes to show that respondents are mostly with job title of Professor.

Teaching Discipline. Fifty three (53) or 26.9% of the respondents are handling Art Design subject, forty five (45) or 22.8% are teaching Foreign Language, forty six (46) or 23.4% Public Sports, thirty two (32) or 16.2% are teaching Chinese Language and Literature, and twenty one (21) or 10.7% are handling Public English. The result indicates that respondents are from different disciplines.

Highest Qualifications. Fifteen (15) or 7.6% of the respondents are Bachelor's degree holders, one hundred sixty seven (167) or 84.8% are pursuing master's degree, while fifteen (15) or (7.6%) are in doctoral degree program. This only shows that majority of the respondents are pursuing graduate studies.

(2)Respondents' Assessment on the Principals' Leadership in Teaching

The teacher respondents that their principals almost always make sure that all grade coordinators are on duty with the highest rating of 3.54 and ranked first among the leadership characteristics. Second in rank is on defining the responsibilities of the staff in achieving the teaching and management objectives of the school with the mean value of 3.53.

On the other hand, it was observed by the teacher respondents that Principals regularly participate in school activities both inside and outside the classroom, frequently encourage efforts and excellence, and develop school objectives based on student performance data with the mean values of 3.48, 3.38, and 3.35 respectively.

Formulating school development work plan for the academic year and semester, and communicating with the community and enterprises about the school development plan were the least assessed leadership indicators of the Principals with the lowest mean value of 2.73 and 3.02 respectively. An average mean value of 3.22 indicates that leadership of the Principals in teaching are frequently observed by the teacher respondents.

(3)Respondents' Evaluation of School Climate as a Mediator

The teacher respondents that an orderly teaching management and reasonable teaching progress is in full compliance with the given highest assessment of 3.59 and ranked first among the school environment indicators.

Furthermore, it was also observed by them that listening of teachers to each other and discussing the ways to improve teaching is relatively match with the rating of 3.39 and ranked second among the school environment indicators. Similarly, it was perceived by the teacher respondents that school leaders know what the faculty is thinking, and that teachers carry out teaching and research activities, discussing textbooks and teaching methods with the given rating of 3.37 respectively. On the other hand, giving full trust and support to teachers' teaching work was given the lowest rating of 3.28 by the teacher respondents. An average mean value of 3.32 indicates that there is a relatively match school environment based on the assessment of the teacher respondents.

(4)Respondents' Evaluation of the Professional Learning Community

Teachers' sharing of the school's vision of focusing on student learning, and discussing specific teaching practices with other teachers were given the highest assessment of 3.35 of teacher respondents interpreted as relatively match and ranked first among the professional learning community indicators. Going to other teachers' classes, and often participation in teacher cooperation activities in which they listen to and evaluate lessons and prepare lessons collectively were relatively match according to the teacher respondents with the mean values of 3.30 respectively.

However, receiving some meaningful teaching feedbacks and suggestions during the class evaluation activities was given the lowest rating of 2.96 by the teacher respondents. An average mean value of 3.23 indicates that a collectively shared knowledge and practices in the learning community are felt and experienced by the teacher respondents.

7. Conclusions

According to the findings above, the research came up with the following conclusions:

(1)Most of the teacher respondents are from different teaching disciplines, in their middle age, pursuing their graduate studies, and have been teaching for quite some time.

(2)Principals demonstrate leadership in teaching as seen and observed by the teachers.

(3)There is an acceptable and a pleasant school climate in the eyes of the teachers.

(4)The school has a team of educators who share ideas to enhance teaching practice that help create a healthy and professional learning community.

(5)Teachers have relatively the same perceptions of the Principals' leadership in teaching, the school climate, and the professional learning community regardless of their sex, age, teaching years, job title, teaching discipline and highest qualifications.

(6)Principals' leadership in teaching, the school climate, and the professional learning community do not give significant impact to each other.

8. Recommendations

Based on the conclusions derived in this study, the researcher came up with the following recommendations:

(1)Improvement on the feedback mechanism may be consider for a more meaningful teaching feedbacks and suggestions during class evaluation activities.

(2)School leaders must improve in building trust and in giving full support to teachers' teaching work as this is the most important element in building relationships and improving learning.

(3)As part of the principal's leadership teaching, care should also be taken to reward and recognize students who excel and progress academically.

(4)Networking with other schools may be considered to share best practices to ensures that the schools continue to learn from each other to improve teaching, learning, and overall leadership activities.

(5)Continuously promote a positive school climate by creating and sharing tools and information for teachers, administrators, staff, and parents.

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