

OPTIMIZING EDUCATIONAL INFORMATIZATION FOR PRIMARY AND SECONDARY SCHOOL TEACHER LEADERSHIP DEVELOPMENT

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Abstract

The research objectives are the optimisation scheme of educational informatization for the leadership training of primary and secondary school teachers. The survey is mainly divided into four parts: the first part is personal basic information; The second part is "three dimensions" survey; The third part is the evaluation of teachers' personal ability in the process of school informatization; The fourth part is the investigation of the dynamic factors of teachers' information-based leadership generation. The designed questionnaire is divided into questionnaire description, basic information and questionnaire body, including single choice, multiple choice. The investigators included 25 school-level administrators and 127 teachers. Among them, 30 are Chinese teachers, 35 are math teachers, 20 are chemistry teachers, 25 are English teachers, 17 are geography teachers and 10 are physics teachers. There are 45 young teachers, 47 young and middle-aged teachers and 35 senior teachers. The university level management staff includes 21 teaching assistants and 4 teaching assistants. Relying on China's professional online questionnaire survey platform "Juanxing", 150 questionnaires were issued, answered and recovered, including 25 school-level managers and 127 teachers. The questionnaire recovery rate was 100% and the effective rate was 100%.

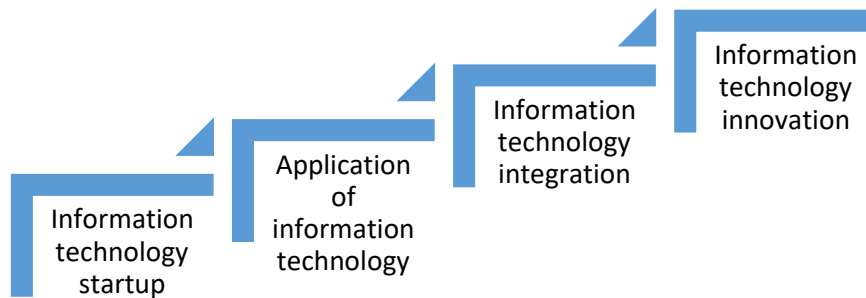
Results: It is found that teachers' information-based leadership is an important part of school information-based leadership. The school is an organization, and under the framework of organizational management, all members have the responsibility to promote the development of the organization. The concept of "school information-based leadership" is the sum of leadership functions at the school organizational level. School information-based leadership is composed of three important groups: the principal, the middle management team of the school and the teacher group. Through the previous investigation and analysis, we know that teachers do not have a deep understanding of their information-based leadership and lack more optimized training and learning. Therefore, according to the practice process of teachers' information-based leadership, we summarize three strategies to help teachers improve information-based leadership.

Keywords: Optimization Scheme of Education, Primary and Secondary School, Teachers' Leadership Training, Informatization

Statement of the problem

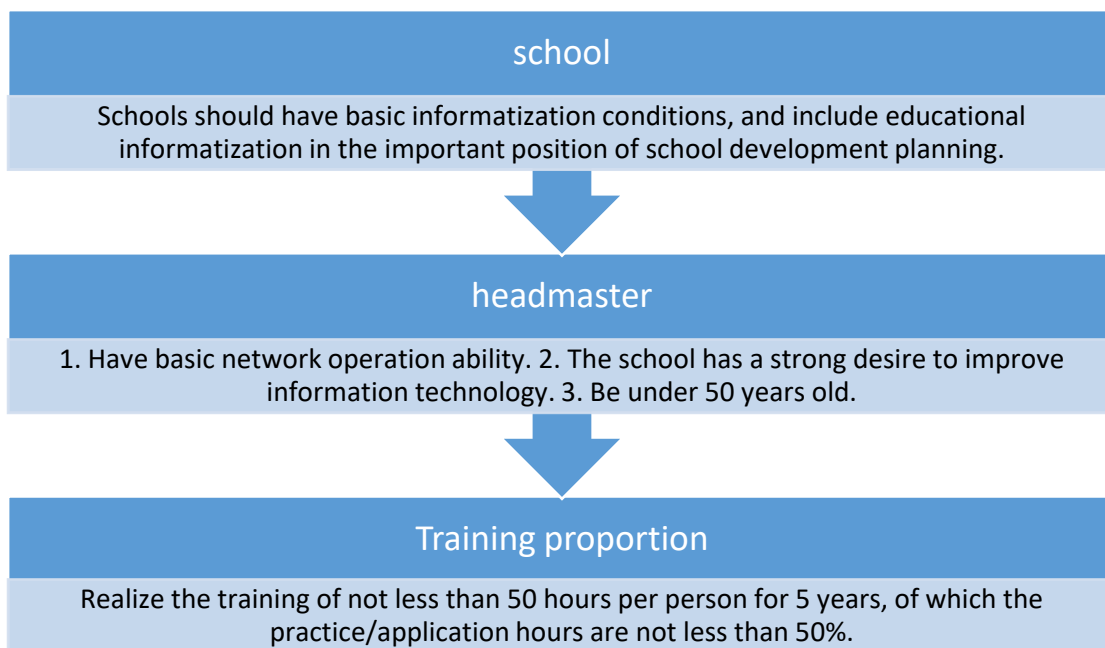
In order to quickly and strictly block the risk of epidemic spread, distance education will be adopted in high-risk areas. Online learning ensures the effective implementation of teaching progress to a certain extent, but there are still some problems in teaching quality, learning methods, application scope, course content, course objectives and later courses.

Question 1: Teachers' information technology is moving forward from "integration of teaching application" to "innovation of teaching technology"



Question 2: Teachers information technology is offline, the number of training places is limited, and the scope of teachers information leadership is narrowed.

There is still an average of five years before each principal can participate in the national education informatization leadership training, and middle-level cadres can only carry out the education informatization leadership training at the county level.



3. The impact of the new educational model and curriculum content leads to the solidification of the educational structure model.

Under the influence of the tide of educational informatization, and the impact of new educational models such as massive open online course, micro-courses, and flip-over classrooms, the changes of various informational learning contents and resources designed and developed for individualized curriculum demand have led to the disadvantages of traditional school education, such as unbalanced structure and outdated ideas.

Research Objectives

The purpose of this study is to conduct a multi-angle and multi-level research on teacher leadership under the background of innovative educational informatization from both theoretical and practical aspects.

- ① Explore the important ways to improve teachers' informatization leadership.
- ② Information-based leadership and teachers' professional development are a group of relationships that promote and influence each other.
- ③ Study the learning content needed to improve teachers' information leadership.
- ④ Propose the design of teacher wisdom teaching community.

Research Hypothesis

1. Teachers' informatization leadership is influenced by three aspects: students' achievement level, interpersonal relationship and principal's leadership.

2. Teachers' information leadership level has a significant positive impact on students' achievements.

3. Good teacher interpersonal relationship has a significant positive impact on teachers' informatization leadership.

4. Democratic and enlightened school culture has a significant positive impact on teachers' information leadership.

Research Meaning

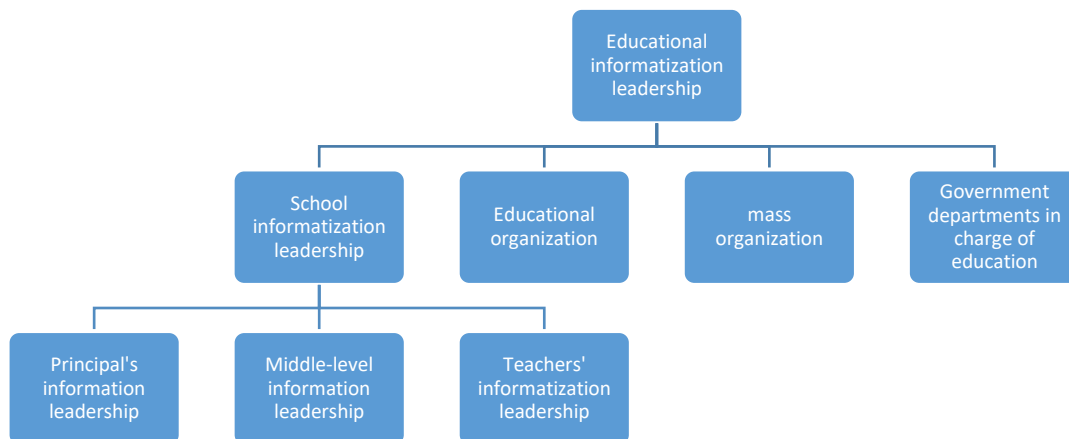
Through field investigation, the researcher aimed at the present situation of educational informatization in primary and secondary schools from three aspects: basic skills, major, curriculum and teaching, school culture and environment, and put forward the significant influence of promoting junior middle school teachers' informatization leadership from three aspects: principal leadership, interpersonal relationship and students' achievement level.

Theoretical support/literature review

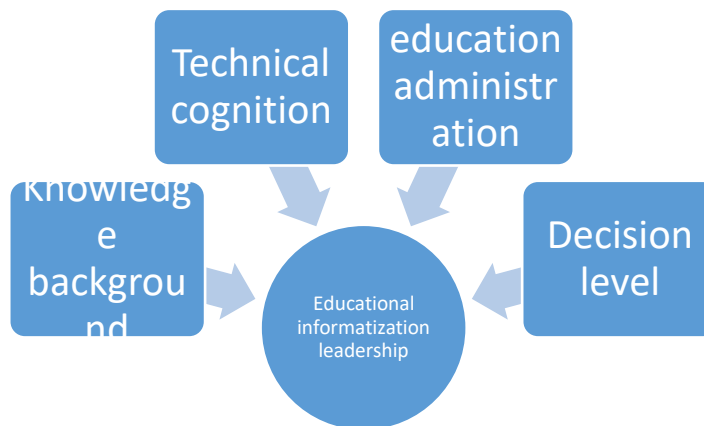
Educational informatization leadership

The operational definition of information-based educational leadership is that the subject of behavior has certain ability to achieve certain goals related to this ability. Athens, a professor of education at the University of San Francisco, USA, defines educational information leadership as: leaders support effective teaching practice, predict future technological development through personal relationships, and effectively integrate and use information technology and other knowledge to achieve educational goals.

The conceptual relationship related to information-based educational leadership is shown in the following figure:



The factors influencing the leadership of educational informatization are as follows



School informatization leadership

As a general description of the ability of colleges and universities, school information leadership can be divided into two categories: information guidance of principals, information guidance of intermediate command and information guidance of teachers. According to the three-tier management system in primary and secondary schools in China, school management is divided into high-level management (principals, vice-principals, etc.), middle-level management (department directors, grade directors, etc.), and grass-roots management (subject teachers, students, etc.).

Principal's information leadership

Principal's information leadership is a dynamic process, which is a process from planning vision to concrete implementation and realization of goals in the information environment defined by time axis.

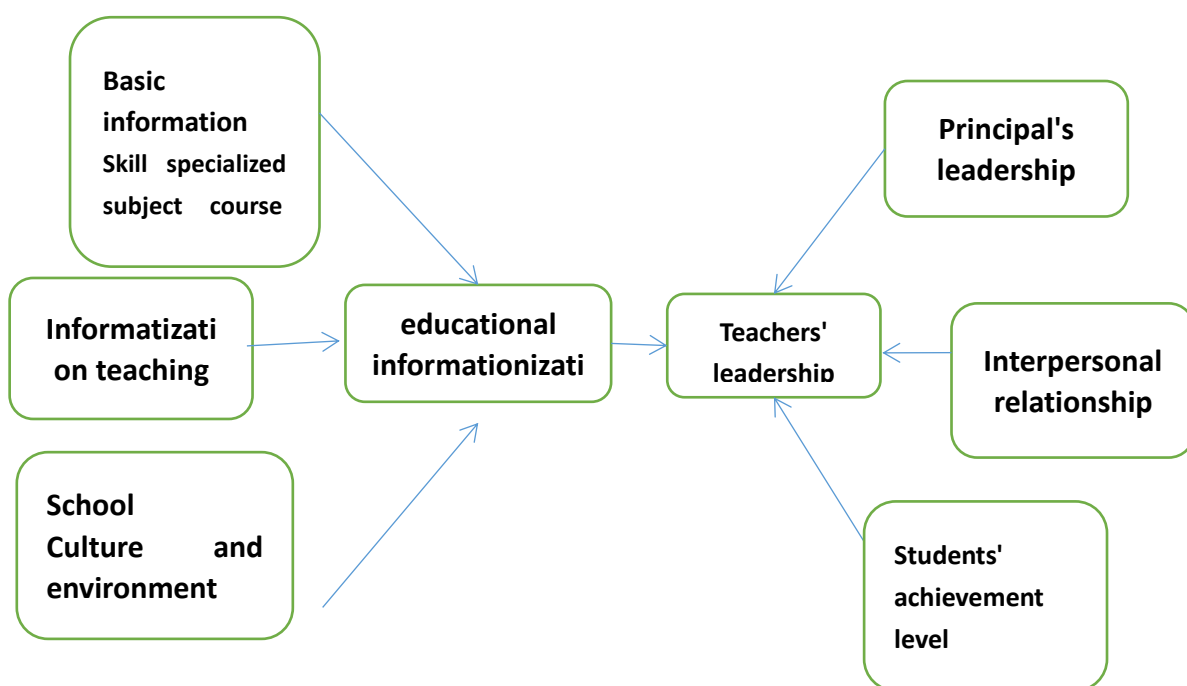
Informatization leadership of middle management team

The middle management team refers to the school management team composed of administrators, which is not the first responsible person of the school, but directly responsible for the daily management of the school.

Teachers' informatization leadership

According to Zhou Jianping's research, the role of teacher leadership is usually manifested at the level of students, colleagues, schools, parents and communities. On these four levels, teachers play six key roles: ① Promoter of students' learning; ② Promoter of learning community; ④ Active participation in team work; ⑤ Participants in school construction; ⑥ Communication guide of parents.

Conceptual framework



Research Results

The contents of the questionnaire are mainly divided into four parts: the basic information of individuals; "Three-dimensional" survey; Investigation on teachers' personal ability evaluation in the process of school informatization; Investigation on the driving factors of teachers' informatization leadership. The designed questionnaire is divided into questionnaire description, basic information and questionnaire body. The KMO value of each measure of reliability coefficient is greater than 0.7, validity is greater than 0.7, and the significance of Bartlett spherical test is less than 0.05.

dimension	Dimension one	Dimension two	Three dimensions	entirety
Number of problems	6	22	10	38
Cronbach's coefficient	0.929	0.977	0.959	0.769

Scale name	KMO value	Bartlett spherical test approximate chi-square value	dif	sig
Dimension one	0.749	865.177	15	0.00
Dimension two	0.945	3493.195	231	0.00
Three dimensions	0.797	1686.751	45	0.00

The SPSS software is used for data statistics and analysis, and the survey results such as the basic information of the research object, the construction and planning of the development vision of information-based teaching, the development and management of information-based teaching, the creation of a good school information environment atmosphere, the improvement of personal ability in the process of school information, and the status quo of generating power factors are described statistically.

1. Dimension 1: the establishment and planning of the development vision of information-based teaching

Teachers perform well in the establishment of information-based teaching objectives; There are still more than 5% teachers who fail to meet the standards in the establishment and planning of the development vision of information-based teaching. Among them, rural schools are weaker than urban school teachers who can jointly establish information-based teaching goals with higher-level teaching leaders (principals, teaching directors, etc.).

2. Dimension 2: Developing and managing information-based teaching

90% of teachers are in line with the design and development of information-based teaching. Compared with rural teachers and urban teachers, urban teachers perform better. The establishment and management of information-based teaching resources inventory by the Ministry of Education has been recognized by teachers, and at the same time, teaching resources are shared. In the process of actively establishing and collecting information-based teaching or learning resources, teachers realize the importance of teaching leadership and enjoy full teaching decision-making power. The application scheme of technology landing has been put in place in cities and towns, while the construction of rural schools is stepping up. Compared with traditional teaching, the scene creation of intelligent classroom has undergone essential changes in technology application scenes.

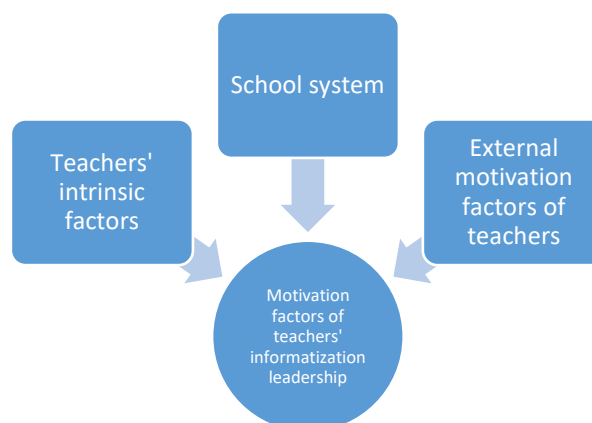
3. Dimension 3: Create a good school information environment atmosphere.

Compared with teachers, colleagues, students and parents, the frequency of information communication is more, while the frequency of information communication with principals and middle-level leaders is less. Teachers' enthusiasm for participation is relatively low, which leads to obstacles in information communication between teachers and schools.

Teachers' awareness of information-based learning environment construction ability is relatively low, so schools need to guide teachers to actively participate in information-based supervision of campus environment construction. Teachers attach great importance to the awareness of building an online learning community.

Option	subtotal	proportion
A. teachers' self-management and self-discipline ability	82	54.67%
B. Awareness of sharing resources	102	68%
C. supervise the construction of campus environment	37	24.67%
D. Ability to analyze and reflect	67	44.67%
This question is filled in effectively.	150	

Multiple choice analysis of the driving factors that influence the generation of teachers' personal informatization leadership: First, the principal's attitude is the first factor of the external driving force of teachers' informatization; Secondly, the recognition of principals, colleagues and students through team learning and organizational learning atmosphere will enhance teachers' leadership confidence; Thirdly, there are very few space environments in schools suitable for exchanging information technology teaching methods; Fourthly, teachers lack time and space to pay attention to the improvement of information-based teaching ability.



Discussion Conclusion.

It is not enough to study the information-based leadership of principals. In the process of promoting educational information, the information-based leadership of teachers is an important part of information-based leadership of schools. The concept of "school informatization leadership" is the sum of the leadership functions at the school organizational level. School informatization leadership is composed of three important groups: principals, middle-level managers and teachers.

Suggestion

Suggestion 1: In the process of cultivating middle-level leadership by principals, teachers' information leadership should be included in the optional items. The training targets should be mainly young and middle-aged teachers, and young and middle-aged teachers with solid information leadership skills, excellent moral cultivation and excellent honors should be selected as the talent team.

Suggestion 2: The principal should actively publicize and guide the teachers in the school through systematic and diverse ways and means according to his ideas and actions of information leadership. The principal can also invite teachers to discuss and participate in the school information policy planning, formulate and promote the education information policy, and adopt information-based teaching equipment and mode to reach the consensus of all teachers.

Suggestions: The improvement of teachers' informatization leadership is helpful to improve learners' innovative thinking and key abilities. It is a new concept of intelligent classroom in the age of ability informatization 2.0.

Suggestions: Teacher training: Establish a training mechanism for teachers' information leadership studio.

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