

# Countermeasures for improving the information leadership of principals from the perspective of technological change education

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**Abstract:** *In recent years, my country's education informatization hardware construction has made rapid progress. In contrast, my country's primary and secondary school informatization leadership construction lags behind. With the in-depth advancement of education informatization projects, new terms, new methods, and new technologies such as micro-courses, WeChat, flipped classrooms, MOOCs, cloud computing, and big data continue to impact our traditional education and teaching concepts. What will be the transformation of teaching environment, teaching content, teaching evaluation methods, and innovative talents training mode. From the perspective of the application of information technology in the educational process and education to adapt to the changes and development of the information age, from the perspective of establishing a shared vision of informatization, supporting teachers' professional development, improving principals' personal information literacy, improving team information literacy, and proactively changing , seek external support. Starting from the requirements of a learning society and the concept of lifelong learning, it points out the necessity of improving the information-based leadership of principals. And on the basis of the constructivist learning concept, it proposes two ways to improve the informatization leadership of principals: self-directed learning and the creation of learning community. The principal is the key. Informatization leadership is one of the necessary qualities of the principal, and it is a comprehensive reflection of the informatization work ability.*

**Keywords:** *Technical change education perspective; Principal informatization; Leadership; Promotion countermeasure*

## 1. Introduction

With the continuous deepening and development of information technology in the field of education, the construction of school informatization has become the commanding height of the future school education development strategy [1]. The rapid development of information technology has brought a huge impact on all walks of life. The education industry is no exception. Information technology is being deeply integrated with education and teaching, constantly promoting profound changes in the education system built by the traditional industrial society. Education informatization is the beginning of a new system change for school managers [2]. The challenge for leadership development from the new situation is how to help principals deal with systemic change. However, compared with the rapidly developing wave of educational informatization, the construction of informatization leadership in primary and secondary schools in my country is lagging behind and cannot match the rapid development of educational informatization, thus affecting the further improvement of the application level of informatization. The leader of teaching and management, whose level of informatization leadership directly determines the quality and development of school education informatization. Different perspectives often affect the determination of training topics. One perspective is to make the principal become a "generalist" in modern education, with "knowledge" as the training goal, and a lot of new knowledge is poured into the principal's mind; people often only emphasize the principal's personal information. It is easy to ignore the collective leadership of deputy and middle management teams [3]. The power of the principal is too concentrated, and the division of labor among other leaders in the informatization construction is not clear, and the responsibilities are not in place, which limits the role of the principal's team to a certain extent. The principal is the soul of a school, and the level of school education informatization depends on the informatization leadership of the principal. Therefore, to improve the level of school informatization, we should start with improving the informatization leadership of principals.

## 2. The Connotation of Principal's Information Leadership

### 2.1. The Necessity of Improving Principal's Information Leadership

The rapid development of information technology has accelerated the pace of social informatization, and the era of informatization has also arrived. Informatization leadership of principals means that principals can realize the role of information technology in education and teaching, and promote the development of school informatization through the joint efforts of themselves and the teachers and students of the whole school [4]. The training objective is positioned as "to provide an opportunity for school principals to jointly research strategies for using modern assessments to promote the integration of technology into the classroom, and to help them each form a personalized action plan that can be implemented back in the school". In the context of informatization, the leadership of principals is composed of informatization and teachers' classroom leadership. To understand teachers' classroom leadership, we must first know the difference between leadership and management (see Table 1). The two are related and interdependent, but their roles are different.

Table 1: The difference between leadership and management ability

Project	Capacity bearers	Essence	Concerns	Relationship between	Field of vision	Pursuit	Methods
Leadership	Leaders	Pursue change	How to lead followers	The relationship between leader and follower	Long-term goal	Vision	Orientation
Ability to manage	Manager	Pursue stability	How to manage workers	The relationship between superior and subordinate	Short term goal	Target	A detailed plan

School leadership tends to be distributed, and the leadership structure tends to be flat from pyramid, that is, school leadership changes from static, one-way and extensive way to dynamic, multi-directional and refined way. The principal is not only the executor of school management, but also the academic leader and the promoter of educational scientific research. In this role, the original function of school management continues to be retained, and leading school teaching and constantly finding ways to improve the quality of school teaching have also become important functions of principals [5]. Leadership is the ability of the leader to influence the leader and some stakeholders in the process of realizing the organizational vision, and the interaction between the leader and the leader and some stakeholders. A good principal is a good school, and the development of the school depends on the leadership level of the principal, that is, information leadership means that the principal himself has a high information literacy, can lead the teachers and students of the school to apply information technology to education and teaching, and continuously conduct research, reflection and deepening. In the information age and under the background of a learning society, the principal can lead the school to develop better only by studying hard and constantly improving his information leadership ability.

### 2.2. Analysis on the Present Situation of Principal's Information Leadership

In recent years, with the country's emphasis on the construction of educational informatization and its promotion, most principals have a high understanding and a positive attitude towards educational informatization. It is easier for principals to construct a Practical solution [6]. Efficient training is a combination of teaching and experience; only the middle and senior leaders of the school realize that the deep integration of informatization and curriculum teaching is an inevitable trend of educational development, and can fundamentally lead the informatization of the school to deepen the education and teaching. level change. The internal information literacy of the principal is also an important factor that determines the size of the principal's information leadership. The informatization literacy mentioned here includes the principal's informatization awareness and informatization application ability. Leadership is not only the leader's personal ability, but also the leader's attraction and influence and the resultant force formed by the interaction with the leader [7]. Informatization leadership of principals means that principals recognize the necessity, importance and urgency of the effective application of information technology in schools. At the same time, through a series of planning, policies, strategies and daily related behaviors, they can have a good understanding of the nature of educational informatization. Deviation, a large number of principals' understanding of educational informatization is still at the technical level, and educational informatization is simply considered to be the purchase of hardware equipment or software systems; schools generally lack reasonable planning, and many principals experience not only The taste of the knowledge learning process is also the learner's personal

experience of what kind of learning environment can create more efficient learning [8]. In this sense, the proposal of the new concept of information-based leadership of the principal's team not only makes up for the insufficiency of the principal's personal information-based leadership, but also integrates the wisdom and strength of other leaders in the school.

### **3. Enlightenment of Constructivism Learning Concept**

#### ***3.1. Promote the application of information technology in the educational process***

From the perspective of constructivism, the process of learning is the process of self-construction. Constructivist learning theory emphasizes self-construction, pays attention to the social interaction of learning, and highlights the use of external environment and resources to construct learning situations [9]. Although principals do not directly participate in classroom teaching, they should encourage teachers to actively use information technology in teaching, use technology to improve teaching methods, and improve students' enthusiasm for learning. Awareness and ability. Most principals cannot comprehend the essence of new media and new technologies to solve problems, and do not know which problems can be solved through informatization and how to solve them, so that principals "can focus on themselves, and strive to learn from the leadership. advanced ideas and concepts such as power and decision-making power are applied to the management planning work that they can directly influence." Most principals have a lot of daily management affairs and heavy workload, and it is difficult to guarantee the time to learn information technology with limited energy. Therefore, the principal should also have a strong sense of self-development [10]. At the same time, the principal's information application ability is the basic requirement of the principal's information literacy, and it is necessary to continuously learn and keep pace with the times. A school is an organization, and the informatization vision is not owned by the principal alone, and requires the participation of members of the organization. Therefore, the principal should encourage all teachers to participate in school decision-making, mobilize the enthusiasm of school staff, process and transform various information and concepts, combine new and old knowledge to synthesize and generalize, form new assumptions and inferences, and make new assumptions and inferences about their own ideas. Conduct reflective scrutiny and testing, and actively manage and reflect on your own learning activities.

#### ***3.2. New thinking on the promotion strategy of principal's informatization leadership***

Accelerate the improvement of principals' information literacy and promote the change of ideas. When talking about school informatization construction, many principals always shirk on the grounds of lack of informatization construction funds and lack of relevant talents in schools. In the leadership forum with the theme of information-based teaching evaluation, students should not only pay attention to the development of classroom evaluation, but also accept a series of evaluations themselves. The informatization work of the school is also the principal's final decision, which causes other leaders to stand idly by, and their subjective initiative is not strong. Even if some leaders have expertise in informatization, they cannot make the best use of their talents and play a leading role well. Obviously, if a principal does not have the correct concept of informatization development and good information technology leadership, then it is impossible for him to face the challenge of educational informatization with a positive attitude, and it is impossible to establish a good educational information in the school. construction mechanism. Use information technology to create a new digital teaching environment, carry out a variety of learning methods such as group cooperative learning and inquiry learning, change the traditional teacher-centered teaching method, fully mobilize the enthusiasm of learners, and thus enhance the information-based leadership of principals Another strategy is to form a learning community and create a good information environment. Through the learning community, the principal's understanding of information technology can be continuously improved, and the ability to use information technology to solve problems can be improved. A learning method to meet the actual needs of different learners. At the same time, the principal's learning situation can be assessed, and corresponding certificates will be issued by the education department, so as to stimulate the learning motivation of primary and secondary school principals. Principals improve their informatization leadership through autonomous learning and learning community, as shown in Figure 1.

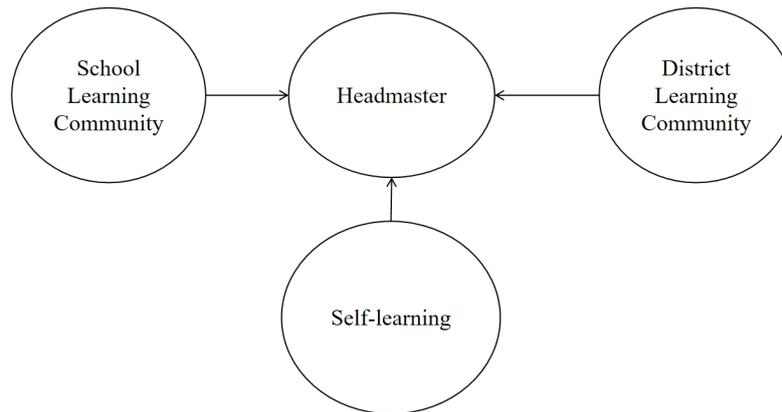


Figure 1: Principals improve their informatization leadership through autonomous learning and learning community

#### 4. Conclusions

At present, education informatization has risen to the level of national strategy and has become an endogenous variable of education reform and development. It is imperative to promote the rapid development of education informatization. When we decide that we should choose a certain technology tool, we should think about whether the learning environment we want is inconsistent with the technology applied; therefore, how to build high-quality online courses faster and better has also become a current concern of colleges and universities hot spot. Principals should also consciously improve their informatization concepts and information literacy levels in their usual work, so as to consider and respond to new situations and problems with stronger leadership skills. School construction needs to move towards the path of informatization, how should school education adapt to the changes and development of the information age, and how to promote the application of information technology in the education process, as the main person in charge of the school, curriculum teaching is the basis for higher education personnel training, Especially for the talent training orientation and training goals of independent colleges, and according to the actual situation of students, it is even more necessary to carefully polish the curriculum. The principal's informatization leadership plays a certain decisive role, and strive to improve his informatization leadership level. In order to better lead schools to speed up the construction of informatization, and go further on the road of educational informatization to drive the modernization of education.

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