

# Problems and Countermeasures of Rural Education Under the Background of Education Digitization

## ——Taking the Village School in Tianshui City as an Example

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**Abstract:** With the continuous change and development of information technology, some emerging technologies have become the innovative force leading education. It uses digital technology to realize the information and intelligence of education and teaching, improve educational resources, teaching methods and educational evaluation, so as to improve the quality and efficiency of education and teaching. However, in the process of development and transformation of education digitization, there are still some problems in promoting the popularization of digital development of rural education. Therefore, this paper tries to analyze some problems faced by the digitalization of rural education at present, and puts forward corresponding countermeasures.

**Keywords:** Education Digitization; Rural Education; Problems; Measures

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### 1. The current situation of education digitization

Education digitization is a process of optimizing the allocation of educational resources and educational processes and conducting comprehensive digital management and evaluation through digital technology, thus improving the efficiency and quality of education. The report of the 20th National Congress of the Communist Party of China puts forward new requirements for the cultivation of innovative talents, and the digital transformation of education ultimately needs to fall on the level of human development. At present, remarkable progress has been made in the transformation and development of education digitization in China, mainly in the aspects of digital education resources, digital education environment, and digital education management.

#### 1.1 Digital educational resources are continuously enriched

With the application of cloud computing, big data, artificial intelligence and other technologies, digital education resources are continuously enriched, showing diversified, personalized and intelligent features. For example, various digital learning resources such as online courses, electronic textbooks and micro-videos are emerging in an endless stream, allowing learners to freely choose learning content according to their own needs and realize personalized learning.

#### 1.2 The digital education environment is gradually improving

Digital education environment refers to the educational infrastructure and learning platform based on digital technology. At present, countries are stepping up the construction of digital education environment, such as “smart campus”, “future classroom”, “online university” and so on. These digital education environments not only provide more convenient learning tools and communication methods, but also realize the data collection and analysis of the learning process, which provides the possibility of personalized education.

#### 1.3 Digital education management is gradually popularized

Digital education management refers to the management and evaluation of the educational process through digital technology, including student information management, teaching quality monitoring, and educational evaluation. Digital education management can realize the intellectualization and refinement of education management, so as to improve the efficiency and accuracy of education management. However, the digitization of education also faces some challenges, such as digital divide, data security and so on.

## **2. The problems faced by the digitization of rural education**

Rural education plays an important role in the rural revitalization strategy, and digital education is an important way to promote the high-quality development of rural education. However, the digitalization of rural education in our country still faces some problems that need to be solved urgently.

### **2.1 The backward education infrastructure in rural areas**

The economic development of rural areas is relatively backward, and it is impossible to invest large amounts of money in the construction of educational infrastructure. The unreasonable allocation of educational resources is also an important reason for the backward education infrastructure in rural areas. In some developed areas, the investment in education is too high, while in some underdeveloped areas, the investment in education is insufficient, which makes the imbalance of education resources more and more serious. Lack of attention is also one of the reasons that leads to the backward education infrastructure in rural areas. Some local governments and education departments do not pay enough attention to rural education and tend to put more energy into the construction of schools in cities and developed areas. This has left schools in rural areas without the attention and support they deserve.

### **2.2 Teachers in rural areas lack digital skills**

Rural education resources, including digital education resources, are relatively scarce compared with urban areas, which makes it difficult for teachers to master digital skills in practice. Due to the limited resources, many rural schools are unable to provide adequate digital skills training for teachers, and teachers lack awareness and mastery of new skills, which makes it difficult for teachers to effectively use digital tools in teaching. As the information in rural areas is relatively closed, teachers have little access to new ideas and methods, and their understanding and cognition of digital education are limited, making it difficult for them to keep up with the pace of educational development and master new skills. Some rural teachers do not pay enough attention to digital education and lack the motivation to improve their digital skills. Rural teachers lack external support as well as professional guidance and help in digital skills, which makes the learning process difficult.

### **2.3 Some rural schools are relatively short of resources**

The economic development of rural areas is relatively backward, and many rural schools lack basic educational facilities. Some excellent teachers are more willing to work in developed areas than rural schools, which affects the quality of education in rural schools. The quality of students in rural schools is relatively poor. Many students' families are backward in economic conditions, and it is difficult for students to get adequate learning support and guidance in the process of education. At the same time, due to the relatively conservative cultural atmosphere in rural areas, it is difficult to popularize and apply some new educational concepts and teaching methods, which also limits the development of rural schools.

## **3. Countermeasures for digitization of rural education**

Digital education is the inevitable trend of future education development. With the continuous development and popularization of Internet technology, more and more high-quality educational resources can be digitized, which provides a broad space and unlimited possibilities for the development of rural education. However, the digitization of rural education is facing many challenges and difficulties at present. Among them, the most prominent problems are backward infrastructure, lack of educational resources, and insufficient skills of teachers. Therefore, a series of measures are also needed to deal with these problems.

### **3.1 Strengthen education infrastructure in rural areas**

The development of rural education cannot be separated from good teaching facilities and conditions. Therefore, strengthening the construction of digital infrastructure for rural education is the key to the construction of rural education system. The government should give

more support to rural education and invest funds to improve the teaching facilities and conditions of rural schools. Digital education needs the support of network, computer, multimedia and other infrastructure. While improving the treatment of rural teachers and attracting more excellent teachers, it should strengthen the supervision of rural schools, promote schools to implement various education policies and improve the quality of education. Gradually improve the relatively backward status quo of digital education in rural schools.

### 3.2 Strengthen digital education skills training for rural teachers

The key to education is teacher-oriented. The cultivation of teachers digital skills is the key soft power to promote the digital transformation of education, as well as the basic and key support for building a high-quality education system and training high-quality talents. Digital education requires teachers to have higher quality and ability. Therefore, teacher training and quality improvement should be strengthened, regular digital skills training should be provided for rural teachers, including computer operation, courseware making, network application, etc. Rural teachers should be encouraged to communicate and cooperate with urban teachers, share the experience and results of digital education, and through mutual learning, discussion of teaching methods and skills and systematic training, Improve the level of digital skills of rural teachers, help them master new skills and apply them in teaching practice, improve digital literacy and teaching ability, better adapt to the needs of digital education, and provide rewards or promotion opportunities for teachers who have made outstanding achievements in digital education, so as to stimulate their enthusiasm and creativity.

### 3.3 Rational allocation of digital education resources for rural schools

Publicity and promotion of digital education should be strengthened, so that more rural schools and teachers can understand the advantages and application ways of digital education, so as to better adapt to the needs of digital education. Digital education can also enable high-quality educational resources to be more widely shared and utilized. Therefore, the digital education resources of rural schools should be rationally allocated, including the development of high-quality digital textbooks, teaching videos, curriculum resources, etc. At the same time, it is necessary to strengthen the construction of digital libraries, laboratories and other resources, establish digital education platforms, gather high-quality education resources, facilitate the use of teachers and students, and enable rural students to enjoy more high-quality education resources. Rural schools themselves also need to strive for more social resources.

In the era of rural revitalization, strengthening the digital integration and innovative development of rural education is an important guarantee to bridge the "digital gap" between urban and rural education, enhance the dominant position of rural education, and promote educational equity. In the face of the current problems, targeted measures should be taken to comprehensively optimize the infrastructure, teachers ability and funding input, so as to promote the digital development of rural education.

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