

Research on the Innovation Mechanism of “Internet + Education” in Rural Schools in Xinjiang

Wenming Zhao

Yili Normal University, Xinjiang Yining 835000

Abstract: With the continuous development of information technology, “Internet + education”, as a new type of education model, is gradually changing the traditional education mode. Therefore, this paper studies the innovative mechanism of “Internet + education” in rural schools in Xinjiang, aiming to break the limitations of time and space, improve the quality and efficiency of education, and promote the process of education informatization.

Keywords: Xinjiang, rural schools, Internet + education, innovation

Introduction

There are still many problems in the education status of rural schools in Xinjiang, such as the uneven distribution of educational resources, uneven quality of teachers, the shortage of the number of teachers, the diversity of students' family backgrounds, and the diversity of educational needs. The existence of these problems seriously restricts the development of education in rural schools in Xinjiang. In order to solve these problems, it is necessary to introduce an innovative mechanism of “Internet + education”. This new type of education model can break through the limitations of time and space, provide rich and diverse educational resources, realize personalized learning experience, improve the quality and efficiency of education, promote the professional development of teachers, cultivate students' comprehensive quality, and promote the process of educational informatization.

1. Analysis of the current situation of rural schools in Xinjiang

1.1 Uneven distribution of educational resources

Xinjiang has a vast territory and a wide distribution of rural schools, but there are obvious differences in educational resources among different regions. Due to the remote geographical location and inconvenient transportation, some rural schools in remote areas have weak teachers, outdated teaching facilities, and lack of modern teaching methods and resources. In contrast, some rural schools close to cities or transportation arteries are able to obtain more resources and support, resulting in an uneven distribution of resources.

1.2 Shortage of teachers and uneven quality

There is a serious shortage of teachers in rural schools, especially professional teachers such as music and physical arts. Due to economic backwardness and limited opportunities for career development, it is difficult for rural areas to attract and retain quality teachers. The education level and teaching ability of existing teachers are also uneven, which seriously restricts the improvement of teaching quality and the learning effect of students. It is imperative to improve the

Copyright © 2023 by author(s) and Frontier Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>

rural education environment and improve the treatment and training of teachers^[1].

1.3 Students' family backgrounds are diverse and their educational needs are diverse

Xinjiang is a multi-ethnic region, and students in rural schools come from diverse family backgrounds and have diverse educational needs. Students of different nationalities have different cultural backgrounds and learning habits, which puts forward higher requirements for the teaching work of rural schools. At the same time, with the development of economy and society, parents' expectations for education are getting higher and higher, and rural schools need to constantly adapt to and meet the educational needs of students and parents.

1.4 School management and system construction need to be strengthened

The management level and system construction of rural schools are relatively lagging behind, and the management has insufficient understanding of modern educational concepts and management methods, resulting in a lack of scientific and standardized school management. The imperfection of curriculum arrangement, evaluation system, and student management has limited the innovation and development of rural schools.

2. The connotation and characteristics of "Internet + education".

2.1 Breaching through the limitations of time and space

The traditional education model is often limited by time and place, and "Internet + education" has completely broken this shackle. Students can study at any time and anywhere through the online platform, and this flexibility greatly improves the efficiency and convenience of learning.

2.2 Abundant and diverse resources

The Internet is a huge database of information, and through "Internet + Education", students can access a rich and diverse learning resources. These resources include not only traditional text textbooks, but also video, audio, simulation experiments and other forms to make learning more lively and interesting.

2.3 Personalized learning experience

Under the "Internet + Education" model, students can choose the learning content and pace that suits them according to their interests, abilities and needs. This personalized learning experience better meets the needs of students and promotes their holistic development.

2.4 Strong interactivity

Through the Internet platform, students can interact with teachers and classmates in real time to discuss problems and share experiences. This interactivity not only enhances the fun of learning, but also helps to develop students' spirit of cooperation and communication skills^[2].

2.5 Innovative teaching mode

The traditional education model is often teacher-centered, while "Internet + education" pays more attention to the subjective status of students. It encourages students to actively explore and learn independently, so that the teaching process is more in line with students' cognitive rules and learning characteristics.

2.6 Data-driven decision-making

In "Internet + Education", students' learning data can be recorded and analyzed in real time. This data can provide teachers with valuable feedback to help them understand how students are learning, so that they can make more informed teaching decisions.

3. The necessity of "Internet + education" in rural schools in Xinjiang

3.1 Equalization of educational resources

Xinjiang has a vast territory and a wide distribution of rural schools, but there is a certain imbalance in educational resources between urban and rural areas. Through the application of Internet technology, high-quality educational resources can be introduced into rural schools, so that students can receive equal education no matter where they are. This sharing of resources will help narrow the gap between urban and rural education and achieve educational equity.

3.2 Improving the quality and efficiency of education

Traditional teaching methods are often limited by factors such as time, place and teachers, and "Internet + education" can break through these limitations and provide richer and more diverse teaching content and forms. For example, through online courses, distance education, etc., students can learn anytime and anywhere, and teachers can also use online resources to prepare and teach, thereby improving the quality and efficiency of education^[3].

3.3 Promoting the professional development of teachers

Teachers in rural schools are relatively weak, while the Internet provides teachers with a broad space for learning and development. Teachers can continuously improve their professional quality and teaching ability through online training and academic exchanges, so as to provide students with higher quality education services.

3.4 Cultivating students' comprehensive quality

In the age of the Internet, students have been exposed to a wide range of knowledge and information, which has greatly promoted the cultivation of their innovative thinking and practical ability. Internet education provides a variety of learning methods and ways to meet the individual needs of different students, which helps them develop in an all-round way and improve their overall quality. This environment opens up endless possibilities for students to grow in their exploration.

3.5 Promoting the process of educational informatization

The implementation of "Internet + Education" is a key step in promoting the process of education informatization in Xinjiang, which can effectively promote the digitalization, intelligence and refinement of education management, and significantly improve the efficiency and level of education management. This process of informatization will help build a modern education system and environment, provide solid support for Xinjiang's education undertakings, and promote its sustainable and healthy development.

4. Construction of "Internet + education" innovation mechanism for rural schools in Xinjiang

4.1 To establish a multi-participatory cooperation model

In rural schools in Xinjiang, the construction of an innovative mechanism of "Internet + education" requires the joint efforts of many parties. A close partnership between the government, schools, social organizations and parents is needed. The government should introduce corresponding policy support, including financial support and tax incentives, to create a good environment for enterprises and social organizations to participate in rural education. Schools should actively open up educational resources and work with social organizations to carry out diversified extracurricular activities to enrich students' learning and life. Parents should also be actively involved in creating a family and school environment that is conducive to their children's development. This multi-participatory cooperation model will inject new vitality into the development of rural education in Xinjiang.

4.2 To build an adaptable educational resource platform

In order to meet the diverse educational needs of rural schools in Xinjiang, we need to build an adaptable educational resource platform. The platform will bring together high-quality teaching resources, such as famous teacher courses and interactive learning tools, to ensure that rural students can enjoy the same quality of educational resources as urban students. The platform has an intelligent recommendation function to push personalized learning resources according to students' learning progress and interests, effectively improving learning efficiency.

4.3 To strengthen training for teachers' ability to apply information technology

In order to improve the quality of teaching, it is necessary to strengthen the relevant training for teachers, covering basic computer operation, the use of online teaching resources and online teaching methods, etc., to ensure that teachers can skillfully use Internet technology into their daily teaching.

4.4 To improve evaluation and feedback mechanisms

In order to ensure the continuous improvement of education quality, it is necessary to conduct an in-depth evaluation of the use of teaching resources, teaching quality and student feedback. Build an efficient feedback system to allow the voices of teachers, students and parents to be smoothly conveyed, absorb the opinions of all parties in a timely manner, continuously optimize the "Internet + education" model, and jointly promote education innovation and development.

5. Implementation strategies and measures of "Internet + education" in rural schools in Xinjiang

5.1 To promote the popularization and upgrading of hardware facilities

In the process of promoting "Internet + education" in rural schools in Xinjiang, the primary task is to comprehensively optimize and upgrade hardware facilities. This covers the construction of network infrastructure, the update of teaching equipment, and the enrichment of information resources. The improvement of network infrastructure is the cornerstone of the overall improvement, and schools need to work closely with communication operators to ensure that high-speed Internet coverage is fully available on campus, so that every classroom can be seamlessly connected to the online world. In addition, it is also important to update teaching equipment, including the introduction of multimedia teaching tools, electronic whiteboards and computer labs, so that teachers can use these modern means to enrich the content and format of teaching. It is also important to note the allocation of information resources, such as e-books and online courses, which can not only broaden students' knowledge horizons, but also effectively stimulate their interest in learning and promote the overall improvement of education quality.

5.2 To carry out a combination of online and offline teaching models

Under the premise that the hardware conditions are fully guaranteed, rural schools in Xinjiang should actively embrace the integration of online and offline teaching mode. Online teaching is not limited by geography, which can allow students to have access to richer knowledge resources; Offline teaching ensures instant interaction and personalized guidance between teachers and students. Teachers can use online platforms, such as online classrooms and distance education, to integrate high-quality educational resources into their daily teaching, and combine them with traditional face-to-face teaching to build a complementary teaching model. Teachers can also innovate teaching methods, such as flipped classrooms and blended teaching, to effectively stimulate students' interest and initiative in learning, thereby improving the quality of teaching and injecting new vitality into the comprehensive development of rural education in Xinjiang^[4].

5.3 To pay attention to cultivating students' information literacy

In the context of "Internet + education", information literacy has become a basic ability for students. Rural schools in Xinjiang shall focus on cultivating students' information literacy, including the ability to acquire, process, and apply information. This can be achieved through the establishment of information technology courses, the organization of information literacy competitions, the organization of information technology application practice activities, etc. At the same time, teachers should also integrate the cultivation of information literacy into their daily teaching, so that students can continuously improve their information literacy level in the learning process.

5.4 To build a security protection system

In the process of promoting "Internet + education", the issue of network security cannot be ignored. Rural schools in

Xinjiang shall establish a complete security protection system to ensure the safe and smooth conduct of online teaching activities. This includes measures such as establishing and improving the network security management system, equipping professional network security equipment and technical personnel, and carrying out network security education and training. At the same time, schools should also establish cooperation mechanisms with local public security, cyberspace and other departments to jointly maintain network security and create a safe and healthy online learning environment for students.

6. Conclusion

In summary, the construction and application of the innovative mechanism of "Internet + education" in rural schools in Xinjiang is helpful to alleviate the problems of uneven distribution of educational resources, shortage of teachers and uneven quality, and meet the diverse educational needs of students.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- [1] Hu Jing, Yang Guangyou, Yu Bo, et al. Exploration of the framework of the "Internet + Education" innovation and development guarantee system [J]. *Research on Open Learning*. 2023; 28(3): 9-15.
- [2] Song Chunmei. Research on the talent training mode of "Internet+" open education innovation and rural revitalization[J]. *Business Economics*. 2022; (4): 3.
- [3] Liang Liangkuan. Clever use of "Internet +" education to innovate the moral education model of rural primary schools[J]. *Electronic Journal of New Education Era(Teacher's Edition)*. 2019; (043): 45.
- [4] Qian Peishan, Zhang Wenmiao. The dilemma of "Internet + education" popularization in poverty-stricken areas from the perspective of innovation diffusion[J]. *Science and Technology Communication*. 2019; 11(9): 2.

Fund project

Yili Normal University University-level Research General Project: Research on the Digital Competency Improvement Strategy of Rural Teachers in Yili Region, Xinjiang (Project No.: 2019YSDX016)

About the author

Wenming Zhao, male, Han nationality, Wuwei city, Gansu province, master's candidate, lecturer, research direction: information technology and teacher education.