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The Application and Development of Mobile Internet in Educational Informatization in Liangshan

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Abstract: ***Education informatization is an important link to realize the modernization of national education. Integrating mobile Internet technology with education is an important means to realize national education informatization. Since China is a multi-ethnic country, it is indispensable to study education in ethnic minority areas in order to fully realize education modernization. Through the analysis of the relevant literature on education informatization in ethnic areas, we can understand the problems in the education informatization of ethnic areas. Taking the education informatization of Liangshan Prefecture as a typical example, it focuses on the application and development of mobile Internet in Liangshan Prefecture education informatization. Try to accelerate the process of education informatization in ethnic areas from the aspects of infrastructure construction, education resource cloud platform construction, distance education, teacher training, and investment channels.***

Keywords: Mobile Internet, Education informationization, Liangshan prefecture.

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1. Introduction

With the rapid development of mobile Internet technology, the Internet has become an indispensable part of people's access to information. The application of mobile Internet in education and teaching methods, education management methods, etc., ultimately makes education develop in the direction of modernization. In order to comply with the trend of the times, China's education field integrates education and mobile Internet technology to create a new situation of informationization in education mode. China is a multi-ethnic country. To realize the modernization education of the country, the development of educational informationization of ethnic minorities is a part that cannot be ignored. However, most of China's ethnic areas are constrained by the geographical environment, and there is a big gap between the economic and cultural level and the developed regions. The Liangshan Yi Autonomous Prefecture of Sichuan Province has long been affected by many factors such as poor natural environment, low social development and relatively lagging economic development. Economic and cultural lag behind developed regions, and many problems are faced in the process of developing educational informationization. And the challenge, how to play the role of mobile Internet technology to promote the educational informationization of Liangshan Prefecture is the problem we need to solve now.

2. The Role of Mobile Internet in Education Informationization

2.1 Summary of Related Research

In the past ten years, China's education informatization has been paid more and more attention by experts and scholars: through the search of education informatization in HowNet, a total of 3,200 results were retrieved in 2018; through the retrieval of education information in ethnic areas, a total of 161 articles have been retrieved since 2013. As a result, from the perspective of mobile Internet and educational informatization, there are 25 results from 2011 to the present; and only the research on the application of mobile Internet in education information in ethnic areas has only one result, namely Shi Dasheng, Cao Xinli Dong Meijuan's "Opportunities, Challenges and

Coping Strategies for Preschool Education Informationization Construction in Ethnic Areas under the Background of "Internet +".

Through the analysis of relevant literatures on education informatization in ethnic areas, it is concluded that scholars mainly study the education informatization of ethnic areas from four aspects, including: the development status and countermeasures of educational informationization in ethnic areas. Research on the construction of educational information resources in ethnic areas; research on the evaluation index system of education informatization in ethnic areas; research on national policies related to education informatization in ethnic areas. In recent years, some scholars have studied the impact of mobile Internet on teaching methods from a micro perspective. It can be seen that more and more scholars have begun to link the development of mobile Internet with the development of educational informatization. Therefore, it is very meaningful to link the educational informationization of ethnic areas with the mobile Internet.

2.2 The Promotion of Mobile Internet to Education Informationization

The rapid development of mobile "Internet" technology has changed the way education and teaching have changed due to the changes in the needs of educational subjects. The educational resources have also changed from the original electrified education to various educational cloud platforms. The way for educators to learn knowledge has been overwhelming. Changes, such as learners using mobile devices, have become more widely used in learning and reading through web platforms.

2.2.1 Mobile Internet promotes changes in teaching methods

With the development of Internet platforms and educational communication technologies, mobile Internet technology has penetrated into all aspects of education. Due to the development of the mobile Internet, students receive a wide variety of information, they will selectively learn according to their own differences and interests, teachers need to adopt different teaching methods for different educators. Under the background of the mobile Internet, the vigorous development and construction of micro-curriculum and MOOC provides technical and resource support for the realization of “flip classroom”. Through the resource sharing platform of MOOC, students can obtain learning resources in advance in the process of learning, and do a good job of pre-study, which is conducive to improving the quality of teaching. The micro-course is developed and promoted based on the traditional 40-minute classroom teaching time. The basic purpose is to ensure that the learners' attention can be effectively concentrated. The advantage of the micro-course is that the video it uploads is generally set to about ten minutes, which not only avoids the students' distraction due to long-term learning, but also avoids taking up large memory and causing the course content to be unattended and downloaded. The situation arises. On the contrary, the micro-class is more practical because it occupies less storage space and is easier for learners to download. The "flip classroom" is based on the development of MOOC and micro-courses, integrating mobile Internet technology into classroom teaching, transforming classroom teaching methods, making teaching methods rich and diverse, and facilitating teacher-student interaction.

2.2.2 Mobile Internet promotes the sharing of educational resources

Since the 18th National Congress of the Communist Party of China, under the rapid development of the mobile Internet, China’s education industry has achieved breakthrough development through the construction of “three links and two platforms”, especially in the field of basic education. Widely popularized and the application level has been greatly improved. In the traditional basic education field, basic education mainly has the characteristics of uneven resource allocation. With the development of mobile Internet technology, students' learning resources can be shared through the construction of “three links and two platforms”, so that students in remote mountain areas can also enjoy high-quality educational resources and ultimately achieve educational equity.

2.2.3 Mobile Internet promotes the development of educational subjects

On the one hand, the mobile Internet has built a platform for the professional development of teachers. In the context of the mobile Internet, teachers are not only educators but also educators. While making full use of the educational carrier of the Internet and mobile devices, we must also master advanced educational methods and educational concepts, improve our professional ability and professional level, find suitable education methods for students through online teaching platforms, and teach students in accordance with their aptitude to improve their teaching standards.

On the other hand, the mobile Internet enhances the subjective initiative of learners. Due to the rapid development of mobile Internet technology, students can actively acquire resources according to their own knowledge needs in the process of acquiring knowledge and information, actively seek answers and find the value of learning, which is conducive to enhancing students' enthusiasm for learning and improving learning efficiency. At the same time, the mobile Internet is also conducive to enhancing the research awareness of learners. In the traditional education mode, research-based learning is difficult to carry out. The main constraints are learning guides, research resources, venues, financial resources and material resources, but with the rapid development of Internet technology, various research platforms and WeChat. The emergence of online networks such as the public number has made these constraints fundamentally changeable.

3. The Application Status of Mobile Internet in Education Informationization in Liangshan Prefecture

3.1 Development Achievements of Mobile Internet in the Process of Education Informationization in Liangshan Prefecture

In recent years, with the launch of the national key project of education informatization, Liangshan Prefecture education has achieved unprecedented development. The implementation of many project projects such as “Action Plan”, “Comprehensive Thinning” and balanced development of education have greatly improved the basic environment and capacity building of education informationization in Liangshan Prefecture.

3.1.1 Construction of educational infrastructure

According to statistics, in the school-to-school construction, there are 1,635 primary and secondary schools in the state, and 1,215 schools have access to the Internet, accounting for 74% of the total. The remaining 420 schools without Internet access are mainly located in remote areas. In the poverty-stricken areas; in the construction of Banbantong, the state has completed the construction of 13,260 class-ban multimedia classrooms. In general, it accounts for 72% of the total number of classes in the compulsory education stage; 50 digital reading rooms, recording and broadcasting. There are 28 classrooms, 70 electronic preparation rooms, and 41,280 computer equipment. In the construction of Renrentong, teachers and students have registered 66.77% of the online learning space teachers, and students have registered 34.51%. A total of 41,311 teachers participated in the training of information technology application capability enhancement engineering.

3.1.2 Construction of education cloud platform

According to the data of the relevant government departments of Liangshan, the funds used to build the education cloud platform can reach 6.46 million yuan, which provides a certain fund guarantee for the construction of the education cloud platform. However, according to the actual research situation, the current education cloud platform in Liangshan Prefecture is mainly based on the operation of the government cloud, and the government cloud belongs to the single-line computer room of the mobile network. The telecommunications and other end users corresponding to the counties are basically acceptable. The state used. At present, the Liangshan Prefecture Education Bureau is promoting the construction of a cloud platform for educational resources, and has incorporated the construction of the education cloud platform into the 2019 budget, with a planned investment of 10 million yuan for three years.

3.1.3 Development of distance education

On the one hand, there are 116 schools that conduct full-time distance education in the Liangshan Prefecture Action Plan, including 20 high schools, 31 junior high schools, and 65 primary schools. The high school stage distance education project has been used by Chengdu as a front-end school for fifteen years, and the school is basically able to carry out simultaneous teaching in accordance with relevant requirements. The distance education in junior high school began to use Chengdu No. 4 Middle School as a front-end school in 2018. The distance education in primary school also started in 2018, mainly using high-quality resources in the state to transmit to remote areas. On the other hand, in 2014, there were 1,014 teaching points in the whole state implemented the “Digital Education Resources Full Coverage” project of the Ministry of Education. In order to enable the teaching points in remote areas to smoothly open courses under the shortage of teachers, the Central Audio-visual Education Center Through the satellite, it provides high-quality educational and teaching resources for teaching points.

3.2 The Problem of Mobile Internet in the Application of Education Information in Liangshan Prefecture

3.2.1 Infrastructure construction is relatively lagging

First of all, the network equipment, computer equipment and various intelligent terminals of most schools in Liangshan Prefecture generally have problems of insufficient quantity and low configuration, which cannot meet the development needs of educational informationization. Secondly, the state-level education cloud platform has not been fully established, mainly based on the operation of Liangshan Prefecture Government Affairs Cloud, and the mobile Internet has not been widely used in government affairs cloud. The state education work lacks information management and application platform, resulting in the state The education informationization work cannot be carried out in depth. Finally, the network is congested and the Internet is slow. Due to the development of the mobile Internet, the number of intranet terminals in schools has continued to increase, and the use of the network is ubiquitous. Many schools do not build metropolitan area networks. Most of the schools' networks are connected by independent optical fibers. The speed of Internet access cannot meet the development of educational information.

3.2.2 The concept of educational informatization is relatively backward

Due to economic constraints, many poor areas in Liangshan Prefecture have less access to the mobile Internet, and the education subject does not have a clear understanding of the mobile Internet. The main way for students to acquire knowledge is still through the teaching of books and teachers. Correspondingly, the teaching methods of teachers are still restricted by the traditional factors of “teaching and teaching”, which will seriously hinder the development of educational informatization. According to the data, most primary and secondary schools in Liangshan Prefecture have begun to be equipped with electronic whiteboards, but there are very few teachers who are proficient in using electronic whiteboards for interactive teaching, and lack of reasonable use of electronic whiteboards.

3.2.3 Distance education is not perfect enough

From the perspective of the overall application, high school distance education has been widely praised by schools, and there are many problems in distance education in junior high schools and primary schools. First of all, due to the short service time, there are problems such as incomplete service, poor video performance, incomplete information, and the inconsistency between the resources of distance education and the actual needs of the schools in the state. Secondly, due to the lack of relevant assessment and incentive mechanism for teachers, the problems of teaching collaboration and communication between front and rear teachers are not smooth, and teaching resources cannot be shared in time. Finally, the distance education program did not radiate to many remote areas of the state.

3.2.4 Information technology teachers are weak

On the one hand, information technology is a highly technical subject. Since many schools do not have a fixed staffing and teachers are highly mobile, most of the school's information technology teachers are not professionally born, and thus the mobile Internet technology cannot be very good integration with education ultimately leads to insufficient resource utilization. On the other hand, due to the lack of professional information technology team, the school campus network management work is difficult to carry out, which restricts the development of education information management.

3.2.5 Lack of sustained and stable funding sources

The development of educational informatization requires a sound educational information infrastructure. The infrastructure is inseparable from the support of mobile devices, which requires a large amount of capital investment. However, the economic development of Liangshan Prefecture lags behind, and more than half of the counties belong to the national key poverty alleviation and development counties, so local finance does not have enough funds to promote the "informatization of education" work. Therefore, the current development of education informationization in Liangshan Prefecture faces major challenges.

4. Suggestions on Mobile Internet Promoting Education Informationization in Liangshan Prefecture

4.1 Improve Infrastructure Construction

4.1.1 Strengthen the cconstruction of basic hardware facilities

Since 2000, the state has successively implemented a series of educational informationization projects, which have improved the hardware foundation of educational informationization in ethnic areas. Due to the backward economic development of Liangshan Prefecture, the lack of information and the lack of resources, the state's education infrastructure is insufficiently invested, and there is still a big gap with the development of national education informatization. When it comes to the construction of educational information infrastructure, it is inseparable from the basic hardware facilities such as computers, electronic whiteboard purchases, multimedia classrooms, and campus network construction. According to the national "three links and two platforms" plan formulated by the state, the education infrastructure can be improved from the following three aspects:

First of all, in the construction of "School-to-School Connections", we will accelerate the construction of educational metropolitan area networks in all counties and cities to achieve high-speed interconnection and inter-school communication. Secondly, in the construction of "Banbantong", the demand for multimedia equipment is met through the implementation of relevant policies on the balanced development of compulsory education. Finally, in the construction of "everyone pass", improve the campus infrastructure network, speed up the upgrading of the campus network, speed up the cost reduction, add more information terminal equipment, realize the comprehensive coverage of the campus network, and strive to achieve online learning. The space covers all students.

4.1.2 Strengthening the construction of cloud platform for education informationization

The author believes that campus network construction is the most important and basic in the construction of educational information infrastructure. In the era of mobile Internet, accelerating the construction of campus network has more important practical significance and practical value. Through the network, schools can realize the interconnection of educational information and the sharing of teaching resources; teachers can realize remote training and regional teaching and research to achieve collaborative innovation and balanced development; students can also achieve independent learning and inquiry learning in the network environment. And collaborative learning to develop innovative capabilities.

First, build a digital campus application platform at the school level, speed up the upgrading of the campus network, and achieve the sharing of high-quality educational resources by purchasing high-quality digital education resources and local high-quality teaching resources. Secondly, at the county level, it is necessary to create a "smart education center", which is mainly responsible for the management, supervision and service of county-level education departments to serve the informationization of school education in the county. Finally, the "Smart Education Cloud Platform" was established at the state level to provide data support for the joint construction and sharing of educational resources in all counties and cities.

4.2 Enhance the Awareness of Educational Informationization

On the one hand, in the context of the mobile Internet, changes in teaching methods are conducive to accelerating the process of educational informationization. Among them, the video teaching that occurs along with the emergence of the mobile Internet is conducive to promoting the transformation of teachers' teaching concepts and the transfer of teaching skills. Therefore, mobile video technology should be used to develop video teaching. Through video teaching, students can experience real classroom teaching situations, stimulate students' interest in learning and improve learning efficiency. Teachers can also learn from more outstanding peers and promote teachers' transformation of traditional teaching methods. On the other hand, we attach importance to the opening of information technology courses in primary and secondary schools. Cultivate students' interest and awareness of information technology, let students understand and master the basic knowledge and skills of information technology, and understand the development of educational informationization is an inevitable trend to adapt to the trend of the times.

4.3 Improve the Development of Distance Education

First, improve multimedia devices. And make full use of mobile Internet technology to ensure that quality education resources can be fully delivered to schools that receive distance education resources. Second, develop quality education resources. Adhere to the principle of combining regional planning guidance with the actual situation of the school, and the quality educational resources of the docking should be able to meet the individual needs of the school, teachers and students. Thirdly, establish and improve teacher assessment and incentive mechanism, promote communication and writing of pre- and post-teachers in distance education, achieve post-school effect evaluation and data sharing. Finally, expand the coverage of distance education. Different from the quality education resources outside the state and the state, the quality resources in the state mainly want to be pushed by the rural remote schools. The state is mainly oriented to the junior and senior high schools with better education foundation. Pushing high-quality resources to the remote and impoverished mountainous areas of Liangshan Prefecture as much as possible, so that more children can enjoy high-quality educational resources fairly.

4.4 Strengthen Training for Principals and Key Teachers

4.4.1 Strengthen the training of principals' information leadership

The development of a school is largely inseparable from the leadership of the principal. In the process of promoting the informationization of school education, the principal plays a pivotal role. Therefore, in order to play the positive role of the principal, it is necessary to train the principal's informatization leadership ability to become the organizer and practitioner of educational informationization. Principals can enhance their informational leadership through autonomous learning, experiential learning, and research-based learning.

4.4.2 Strengthen the training of key teachers' information ability

The backbone teachers are the backbone of school education and teaching, and they cannot be ignored in the process of school education informationization. Therefore, it is very important to increase the information ability training for key teachers. The backbone teachers can not only learn information technology through regular “national training programs”, but also use mobile internet technology to use mobile devices such as mobile clients to conduct information technology training anytime and anywhere.

4.5 Broaden Investment Channels for Education

On the one hand, it is necessary to rely on the financial support of the national government to maximize the preferential policies given by the state policy. This is the most direct and effective way. On the other hand, with government support as the mainstay, appropriate introduction of social capital will allow more companies to invest in the construction of education. In the remote ethnic areas, primary and secondary schools have the highest level of informatization, the best equipment and the strongest talents. Schools can make full use of the advantages of equipment and talents, provide human resources training for local factories and enterprises, collect market information, and serve economic and social development. Only when the local economy and society develop well can we support education and development education.

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