

Research on the Construction of Yi Education Informationization for 2035

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Abstract. The construction of educational informatization is an important component of the modernization of Yi education and its leapfrog development. At present, it is in the rising stage of a new round of scientific and technological revolution and industrial revolution. The 2035 document issued by the central government depicts a new picture of educational reform characterized by intelligence and humanism. How to seize the current opportunity and promote the level of intelligent construction and innovative education mode under the guidance of national policies is an urgent issue for Yi people's development. This paper points out the problems existing in the long-term unbalanced development of Yi nationality's education, such as lack of teachers and obstacles in language concepts. It analyzes the significance of information construction from the aspects of improving educational environment, resources and methods. Finally, it elaborates in detail the ideas of Yi nationality's information construction in terms of campus intelligence level, online teaching resources, teachers and innovative teaching formats.

Key words: Yi nationality; Educational informatization; Intelligent campus

Yi nationality is the sixth largest ethnic group in China with a population of tens of millions. It is mainly distributed among the plateaus and coastal hills of Sichuan, Yunnan, Guizhou and Guangxi provinces (autonomous regions). Most of them are located in remote mountainous areas, with relatively slow economic development and relatively backward education level. In recent years, the state has implemented a series of policies and measures to promote the informatization of education which have greatly developed Yi schools at all levels in terms of educational concepts, environment, teaching methods and methods. However, compared with urban education, there are still some problems in education in Yi areas, such as relatively slow development, unbalanced development and so on. There are many difficulties to be solved urgently. In February 2019, the Central Committee of the Communist Party of China and the State Council of China's "Modernization of China's Education 2035" described the long-term blueprint for the development of education and pointed out the development direction of modern education. Yi education should seize the opportunity of a new round of scientific and technological revolution and the rise of industrial revolution, use the development of new technologies such as the Internet and artificial intelligence, reshape the educational form, overcome many difficulties and make great progress in Yi education.

1. The main problems in the development of education in Yi nationality areas

Since the implementation of the "two basics" in 2005, most Yi students no longer drop out of primary school after graduation, but continue to study in higher education institutions. However, because of various reasons such as history, geographical location, economy and language, the whole education of Yi nationality has not made great progress and there are many problems. [2]

1. The distribution of teaching resources is uneven and the infrastructure is weak.

Restricted by the level of economic development, the educational hardware facilities in most Yi areas are relatively backward. In recent years, although the state has issued a series of policies to promote the development of education in ethnic minority areas, the hardware of each school has been continuously improved and multimedia classrooms and computer rooms have been equipped, there are still many problems in the later stage of equipment renewal, maintenance and use. [1] However, in some poverty-stricken areas of the Yi nationality, schools only have rudimentary classrooms and lack necessary hardware facilities, which makes it difficult for the students in the area to receive the achievement education of information construction at the basic education stage and further restricts the improvement of education quality.

2. The teachers are weak and the quality of education is not guaranteed.

Because most of the Yi nationality areas are located in economically backward areas of our country with poor geography and living conditions, many teachers especially university graduates are reluctant to teach in some remote schools in minority areas. The state-supported project of supporting college students in poor areas is also difficult to achieve long-term support and cannot change the current backward

situation of teachers in Yi areas in the short term. At present, many teachers are left-behind teachers in rural areas, and their educational skills are relatively weak. They lack corresponding guidance in the teaching process which makes it difficult to improve the teaching quality.

3. Language barrier

Many Yi students live in relatively remote areas and have never come into contact with Chinese before receiving formal education in schools. At present, most teachers in schools are Han nationality and do not understand the language of Yi nationality. They can only teach in pure Chinese. Students have encountered language barriers from the beginning of school. Although there is language connection in preschool classes, students can not fully adapt to it due to the short time. In addition, there is a lack of textbooks specially edited for Yi nationality areas and the teaching progress is in step with that of Han nationality students. As a result, Yi nationality students have a low starting point, and many students even abandon their studies halfway because their academic results cannot keep up with them. Therefore, how to let students break through the language barrier is a great difficulty and challenge for teachers. [4]

4. Conceptual barriers

The special geographical position and hard concept determine the relative backwardness of information in Yi nationality areas. On the one hand, because most rural parents are not highly educated and have backward educational concepts, many parents choose to let students drop out of school halfway in order to change the existing living conditions. At the same time, limited by hardware conditions, information is blocked and students lack input of fresh knowledge. Compared with the children in the city, there is a huge gap in knowledge level. On the other hand, the relevant education workers did not receive the latest education concepts in time, thus training talents with relatively backward education concepts. The talents thus trained will have difficulties in meeting the needs of social development and cannot keep pace with social development.

5. The culture of Yi nationality has not been fully affirmed.

The current education content system in Yi nationality areas adopts the unified standard of modern education in China. No matter from the education goal, goal, language, curriculum and so on are consistent with the whole country. This non-discrimination deepens students' recognition of the backwardness of minority education, which is also an important factor leading to the low academic achievement and high dropout rate of students in Yi nationality areas. In modern education, schools need to spread the given social values to maintain social stability, thus ignoring the education of the cultural values of the Yi nationality and making students feel inferior and unsure. [2]

II. Significance of Yi Education Informatization Construction

Under the background of the development of the times, the popularization of information technology provides an opportunity for the improvement of education in Yi ethnic minority areas especially the promotion and popularization of mobile devices represented by mobile phones and tablet computers in various areas which makes it possible for Yi ethnic minority education areas to narrow the gap between urban and rural areas, promote balanced development of resources, and improve education methods. According to the "Modernization of Chinese Education 2035" issued by the CPC Central Committee and the State Council, Yi education can seize the current opportunities of major information technology innovation and explore the appropriate educational forms, knowledge acquisition methods and teaching methods for its own development in combination with the actual situation, so as to promote Yi education quality to continuously move towards a fairer and more sustainable direction. Therefore, the informatization construction is of great significance to the education development of Yi nationality. [7]

1. Improving the educational environment

The construction of educational informatization can create a new educational environment by improving the intelligence level of Yi campus. The traditional teaching environment, consisting of simple equipment such as desks, chairs and platforms, provides a closed and quiet teaching environment. Due to the limitations of traditional educational thoughts, environment, conditions, resources and other factors, it is impossible to impart knowledge. However, information technology can combine the closed Yi nationality region with the outside world and introduce the outside world into the classroom, so that the teaching environment is no longer closed and students can get a closer experience to the real world.

2. Promote educational concepts

The application and advancement of information technology will have a great impact on the original educational thoughts and concepts of the Yi people. The teaching environment, media and related resources will undergo great changes, as will the thinking and task connotation of teaching design theory. Information

technology promotes new developments in educational theories such as performance, virtual learning, micro-curriculum theory and so on, which are currently hot topics. These theories guide the effective application and development of educational technology and information technology in education and teaching. [9]

3. Improve educational resources

Teaching resources are the primary condition to ensure the smooth development of teaching work which mainly includes teachers and teaching content resources. In terms of teachers, there is a shortage of teachers in Yi nationality areas and most of them are of low professional level. However, the traditional teaching content resources have limited functions and cannot give full play to their teaching functions. Information-based teaching conditions and resources can introduce the outside world into the classroom so that students can have a personal sense of perception, thus obtaining intuitive, complete and correct course knowledge and making the learning content more vivid and interesting. At the same time, under the condition of information technology, because of the change in the form of obtaining resources, one teacher can face a group of students and one student can face numerous teachers and experts. [8] Using terminal equipment, students can access many teachers and obtain the knowledge and information they want anytime and anywhere.

If education does not have good implementation methods and methods, it will not only cause waste of resources, but also fail to reach the teaching objectives. The contents of the existing education system are not fully integrated with the actual situation of the Yi people. For Yi students, school education spreads almost a different culture. Therefore, most Yi children are not easy to learn in school, and it is not easy and simple to farm, graze or work outside the home. Educational informatization has changed the composition of teaching environment, resource conditions and the transmission and acquisition channels of knowledge and information, so teaching methods will also change accordingly. Students can carry out innovative learning, cooperative learning and autonomous learning under the information technology environment, which provides conditions for the Yi nationality region to carry out personalized education in combination with the actual situation.

III. The development strategy of Yi education informatization

The application of information technology in Yi education requires continuous follow-up of changes in new technologies and new media, innovation of application methods, emphasis on integration with subject courses, and design and development of resources suitable for Yi education and teaching to continuously promote the healthy development of Yi education informatization.

1. Improve the level of campus intelligence

Most of the schools in the Yi nationality area have now reached a preliminary level of information environment construction. For example, the basic distance education function, the construction of multimedia classrooms and the installation of computer classrooms have enabled schools to have information-based teaching conditions at different levels. At the same time, some teachers have also participated in relevant content training successively, but these are still in the most basic application of information.

(1) Build a network environment based on 5G technology. With the advancement of 5G network, modern campus will acquire the characteristics of "ultra-fast acquisition", "ultra-multi-connection" and "ultra-strong reliability" to meet the needs of online learning platform, reduce data transmission time and realize the efficient and convenient application of information technology in education and teaching. Therefore, facing the future, 5G technology will certainly become an essential network foundation for campus construction. Its education, teaching, management services and other related systems will be driven by 5G technology and a variety of advanced technologies will be built to access the resource channels of the campus at the same time to realize seamless connection and smooth switching of data mining system, cloud computing analysis system, expert decision system and intelligent service system. Internet of Things, cloud computing and big data are the three most widely studied and applied technologies in the future campus construction process, while sensor technology, intelligent sensing technology, virtual technology and other information technologies based on artificial intelligence represent the future trend of campus technology application. Therefore, in order to develop informatization in Yi nationality areas, it is necessary to overcome difficulties, strengthen research and publicity work on new technologies, solve the situation of many advanced technologies but low application level, and realize the matching of construction technologies and application technologies.

(2) The construction of an open ecosystem intelligent campus. Intelligent campus information platform is the external environment of education, learning and management system, and is the key to ensure the normal operation of all parts. The healthy development of education informatization requires not only open and smooth technical systems, but also cross-border communication and cooperation between different systems. The construction of campus informatization in Yi region should not only form an integrated technical system and management platform, but also promote the coordinated development of various education information regions. On the one hand, it is necessary to set up specialized information system management leading organizations in schools so as to effectively implement and operate top-down management and realize a network platform for the intercommunication of teaching, management and Yi educational and scientific research system resources; On the other hand, from the level of education managers, it is necessary to establish a data storage and analysis model, study the storage and analysis of campus data of different themes and levels, explore the social data of students outside the course study, deeply analyze the educational essence behind the data, and give full play to the greatest effect of modern campus in serving education and teaching. [3]

(3) Building a people-oriented information campus. Education informatization for 2035 is a technological innovation with big data and artificial intelligence as contacts rather than a simple superposition of infrastructure. Yi people's informatization campus construction must follow the needs and characteristics of school education development to carry out rational development and construction to need supply and demand, adjust the blind and technology-oriented intelligent equipment construction mode, and build regional coordinated development on the basis of meeting the needs of schools. The essence of the intelligent construction of education lies in providing more convenient teaching management services and personalized learning experience. It is not necessary to introduce advanced technology and establish an intelligent platform to cause inconvenience in teaching management. Students, teachers and management personnel cannot find the original system functions and thus affect their work and learning results. [10]

2. Pay attention to the construction of online teaching resources

With the development of education in the whole country, the Yi nationality area has entered an innovative development stage in the 2.0 era from the integration and application of education informatization in the 1.0 era. In addition to ensuring the high-quality construction of the hardware environment, it is more important to explore new teaching forms suitable for the Yi nationality. Yi education researchers can make use of the numerous online education resources provided by the government and enterprises and combine with the national culture and actual situation to formulate their own education contents and teaching forms, so as to promote the development of the whole Yi education.

(1) Construction of bilingual information resources. The development of high-quality Yi+Han online teaching and supporting resources is an important means to realize the development of Yi education informatization. Bilingual teaching is used in schools. Some courses can be taught on-line and teachers can assist students in learning. This can not only solve the problem of shortage of teachers, but also improve the quality of teaching. [6]

(2) Construction of school-based curriculum information resources. Through the development and implementation of multi-cultural school-based curriculum in Yi nationality regions, students can be helped to strengthen their own identification with their own national culture. However, the school-based curriculum is affected by different regions and schools, which is very different and difficult to develop. The construction of information resources for school-based curriculum education can just solve this problem. Information-based teaching resources can be jointly developed and constructed by the department in charge of education information for the Yi nationality, schools and teachers, and can also be developed in the form of school alliances.

(3) Constructing the mode of co-constructing and sharing educational resources. Nowadays, various online education modes are developing rapidly. Yi education should fully draw on the model of co-construction and sharing of educational resources represented by MOOC, so that competent Yi teachers have the opportunity to fully display their talents and make "one teacher, one excellent lesson" more grounded and have more market potential. At the same time, it is also necessary to attract social online educational resources to invest in the construction of educational resources for the Yi people to improve the construction quality and operation efficiency of ethnic educational resources.

(4) Change the concept of educating people. Under the environment of education informatization 2.0, it is necessary to cultivate personalized talents with comprehensive judgment ability to face real situations and solve practical problems, as well as rich knowledge reserve and innovation ability. To promote the in-depth integration of information technology and Yi's classroom teaching, let teachers act as teaching

organizers in the classroom, and lay a solid foundation for students' personality development; In the information technology environment, students choose massive open online course, micro-class and other mobile learning methods that are suitable for their needs and interests to make students realize that learning is not only for examination, but also for hobbies and even to acquire survival skills to truly mobilize the enthusiasm of students in learning. In addition, students' learning management and assessment standards and methods should be integrated into the ubiquitous learning environment constructed by information technology. Cooperation, autonomous and inquiry learning supported by information technology should be widely implemented in the teaching process so as to enable students to form the habit of digital learning.

3. Strengthen the construction of teachers

In order to strengthen the application of educational information technology of Yi nationality, teachers' application level of information technology must be improved. If schools only pay attention to the construction of hardware conditions and educational resources, but do not integrate well with subject courses and do not apply them in actual teaching, it will be a great waste of huge investment.

(1) Strengthen online training and exchange. Quantitative teacher network communication learning plan with fixed time and theme can open long-term communication learning channels on the network, pay attention to guiding teachers to carry out academic exchanges and actively express their opinions. At the same time, the online platform needs special management personnel to manage and urge teachers to complete online learning in time to ensure the learning effect.

(2) Pay attention to offline discussion and exchange. With the network as the carrier, make full use of the remote live broadcast system to strengthen the communication and communication between teachers in various areas of Yi nationality, especially in urban and rural schools. The offline training should formulate a clear training plan which includes the objectives, contents and activities of the training.

(3) Combine the application of information technology with the characteristics of the course. Teachers need to pay full attention to the experience of the application of information technology in students' courses, analyze how to better use information technology in actual teaching, and how to organically link the application of information technology with subject teaching to ensure the effective realization of teaching objectives.

(4) Improve the innovative ability of education and teaching by using information technology. Faced with the rapid development of information technology, Yi teachers should pay attention to breaking through some "habitual thinking", use numerous online resources, expand their educational vision, enhance the motivation of using information for educational and teaching innovation and stimulate students' online curiosity and learning enthusiasm.

4. Innovating educational service formats

Limited by practical conditions, the relevant government departments have limited power in the development of Yi education informatization. Therefore, the government dependence on education informatization should be weakened, the idea of personalized personnel training in 2035 should be taken as the idea, and a combination mode of production, teaching and research should be established for education informatization construction, social forces should be stimulated by survival of the fittest and benefit orientation, more accurate and optimized services should be provided in the process of education informatization of the Yi nationality and market mechanism should be fully utilized to innovate the service formats of education of the Yi nationality. [5]

(1) Crowd-raising, creating and participating in the development of high-quality Yi digital education resources. Digital educational resources with multiple participation should correctly handle the interrelation among many forces such as government, market, students, teachers and third-party organizations. First of all, at the level of the government, we should establish a public service system for Yi people's digital education resources and improve the relevant mechanisms for the development and utilization of resources. Secondly, the relationship between education management departments and the market should be properly handled. The market is the main source of high-quality digital education resources. While ensuring the freedom of the market, the form of purchasing and outsourcing high-quality education resources should also be improved to speed up the market's innovation and transformation ability on high-quality education resources. Finally, Yi schools, teachers and learners are encouraged to participate in the construction of high-quality educational resources in an innovative way to improve the rich level of digital educational resources.

(2) The construction of "third party" supervision mechanism. To ensure the safety and reliability of digital education resources with multiple participation, an effective "third party" supervision mechanism must be established. First, in the development of educational informatization, an evaluation and review

organization for digital products, information-based educational resources and the effect of integrating information into education and teaching should be established, an evaluation model conforming to the development of educational informatization of the Yi people should be developed, and early formulation, mid-term assessment and final assessment of quality standards for educational informatization products should be involved in a scientific and standardized manner. Second, network media supervision should strengthen legal norms and system regulation. Third, standardize the educational information system and resources so that market leverage can play a positive role independently.

Because of the advancement of 5G network, the application of upper-level science and technology will develop rapidly. Seizing the opportunity of current science and technology and industrial revolution, overcoming many difficulties and always following up the construction of educational informatization of Yi nationality are the inevitable stages of the development of the whole Yi nationality. Only by improving the level of information construction can we balance the educational differences between regions, realize the fairness of social education and the continuity of national culture in the future.

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