A Study on the Internet Plus and the Popularization of Quality Education

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Abstract: A century-long plan, education-based. Education is the key to the rise and fall of the country and the nation. Quality education is an important foundation for the great rejuvenation of the Chinese nation. The reform and development of China’s education are facing unprecedented opportunities and challenges, and bearing the dual responsibility of equalizing educational opportunities and improving the quality of education. The uneven distribution of educational resources is the major issue that restricts the current development of education. From the theoretical perspective of high quality education, this paper studies the distribution status and existing problems of high quality education resources in China, analyzes the promotion of information technology on optimizing the allocation of educational resources, and puts forward some relevant suggestions on how to popularize quality education better.

Introduction

With the implementation of the strategy of invigorating the country through science and education, China’s education sector is facing new challenges. The configuration lack of information resources for regional quality education has become a key factor that restricts the popularization of information-based teaching. How to expand the coverage of quality education resources at all stages in various regions has become a major concern for all walks of life. On the other hand, the balanced development of China’s compulsory education has achieved a shift from equal rights to balanced resources, and it is moving from a balanced resource to a balanced high quality. With the continuous advancement of the education informatization process, the promotion of the sharing of quality education resources by informatization has become an important issue in education informatization. To promote the development of education in China, we must promote balanced development of regional education and popularize quality compulsory education with quality as the core. The Outline of the National Medium and Long-Term Education Reform and Development Plan (2010-2020) clearly points out that “information technology has a revolutionary impact on the development of education and must be highly valued.” At present, we should optimize the concept and policy, and use the fast-growing Internet to solve the problem of the allocation of quality education resources in the information age. Promoting education modernization through education informatization and promoting education innovation and reform is a major
strategic choice for accelerating the transition from a large education country to a powerful education country[1].

**Current Situation**

The irrational allocation of regional quality education resources is a serious problem facing the current development of education. With the rapid development of China’s economy and the continuous improvement of urbanization, the urban population is increasing rapidly, and the demand for all kinds of public services is naturally higher and higher. Educational resources have always been important public services and should show a certain degree of balance in order to fully meet the needs of social and economic development. However, the current distribution of education resources in China is still very uneven, which has led to a large geographical gap in education in China. Even in the same city, there are serious imbalances in the distribution of quality education resources, which seriously affects and restricts the further healthy development of our country’s social economy. There are two characteristics in the distribution of educational resources in China, that is, the uneven distribution of high-quality educational resources in cities and the large gap in the distribution of regional educational resources. Among them, the uneven distribution of urban quality education resources shows two characteristics, that is, the degree of educational resources centralization is still relatively high and the degree of educational resources sharing is still relatively low[2].

In terms of resource sharing, the educational resources of major universities are relatively independent and do not integrate into the overall social environment. Universities, educational institutions, other social-related organizations, and government-related departments have failed to create a good resource-sharing atmosphere, which cannot be linked into an effective resource-sharing path. In the sharing process, there is no market regulation mechanism, many education resources are still shared on the free, and the lack of a reasonable and effective benefit distribution mechanism can easily dampen the enthusiasm of colleges and teachers involved in sharing so that the quality and efficiency of sharing cannot be guaranteed [3].

**Cause Analysis**

**The Different Distribution of Regional Education Resources**

There has been a great difference in the development of regional economy in China for a long time. The eastern coastal areas and the inland areas of the central and western regions have a great gap, and the same is the case in the field of education. The distribution of educational resources has greatly varied among regions.

**Large Gap in Educational Hardware Resources**

In the eastern coastal areas, no matter the urban and rural areas, the primary and secondary education has basically realized the full coverage of the multimedia classrooms, but many schools in the central and western regions even remain under the conditions of the soil room. In addition to school buildings, it also includes a series of teaching hardware resources such as books and teaching aids. China’s central and western regions still have a large gap in this regard. This is due to the unbalanced social and economic aspects in China. In turn, this has become an important restriction factor to narrow the gap of other sides to a large extent. With
such a vicious cycle, the gap has not been narrowed but has an increasing trend over the years.

**Large Gap in Educational Software Resources**

The software here refers to a series of factors such as teachers, teaching modes, and teaching methods that directly relate to the teaching results. With regard to the current situation of the lack of educational software resources in the mountains, China has never found a particularly good solution in this regard. Educational software resources have more direct impact on the improvement of education than educational hardware resources, which greatly affects the realization of the goal of comprehensive and balanced education in China[2].

**Large Gap in Environment Atmosphere**

The human growth environment will greatly affect his future development. The difference between Western and eastern coastal areas is well known. The gap between the educational environment and cultural atmosphere of the second-tier and third-tier city, small county cities and provincial capitals and big cities can not be ignored. Different family conditions and school environments affect the balanced development of education, and the cultural atmosphere of the region also play a subtle and imperceptible role for students.

**Little Resource Sharing**

The sharing of quality educational resources means that within a certain range, the education department breaks existing boundaries with its own resources and sharing them. The implementation of such sharing can maximize the utilization of existing manpower, financial resources, material resources, and information resources without increasing or decreasing the investment in education, and improve the efficiency and quality of education and teaching. However, even in the age of information sharing, the sharing of educational resources in China is still not enough. Influenced by the traditional thought and the current educational system, some universities and related institutions try to gain and occupy resources, strengthen their own dominant specialties, pay more attention to their own interests. As a result, their awareness of resource sharing is weak and their participation is low. On the other hand, the current sharing of educational resources is lack of rich content, the sharing domain is monotonous, resource sharing is restricted by the system and lack of market regulation mechanism. It is bound to lead to poor sharing effect, and the enthusiasm of students to participate in sharing is not high[3].

**The Information Age and the “Internet Plus Opportunities”**

**Analysis of “Internet Plus Education” Mode**

It seems appropriate to use resources developed from the Internet to help us define the Internet. Webopedia, an online tech dictionary for IT professionals, indicates that, “The Internet is a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Webopedia differentiates between the Internet and World Wide Web (WWW) suggesting the “Web is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. In short, the Internet is a relatively young system of networks that support the World Wide Web and other tools in the transfer of knowledge[4].
Conventional computer aided teaching methods are not suitable to organize, manage, and communicate the comprehensive course information any more. Higher education course model should focused to integrating student, teacher, and institute demand driven characteristics of modeling. Model is developed for application by course procedures[5].

Chinese Premier Li Keqiang first proposed the “Internet+” action plan in the 2015 government work report, which promotes the combination of mobile internet, cloud computing, big data, networking and modern manufacturing industry, and promotes the healthy development of e-commerce, industrial internet, and internet finance. It also guides Internet companies to expand their international markets. “Internet plus” is actually a new format for the development of the Internet under Innovation 2.0, and is a new form of economic and social development that has been shaped by the evolution of the Internet and promoted by the innovation of knowledge society 2.0. “Internet plus” is the deep integration of the Internet and traditional industries, upgrading technology and efficiency, and promoting the transformation and upgrading of traditional industries and the growth of new industries.

“Internet plus education” integrates the Internet gene into education through the information network technology, and implements the entire process of reforms from the purpose, process and evaluation of personnel training, and support the change of personnel training mechanism and system. It realizes the ecological education supported by the Internet to meet the talents needed in the era of Internet economy and social development, and to realize the strategic transformation of the overall development of education.

The core features of “Internet plus education” is open, large-scale, attention to students, efficient and ecological. “Internet plus education” has developed in depth through cross-border integration and forms a new ecology of education. To realize the improvement of education quality, balanced development, education equity, and enrichment of educational resources, we must reform and innovate. The Internet can build up a quality education resource sharing system and maximize the convergence of educational resources. “Internet plus” will not replace the traditional education, it will make the traditional education radiate new vitality[6].

Favorable Conditions for Promoting High Quality Education on the Internet

The Internet quality education resource service system is running normally. In the twelfth five year plan from 2011 to 2015, China is committed to the creation of “three links and two platforms”, that is, “broadband network school, high quality class, and network learning space for everyone.” The two public service platforms, such as education resources and education management, have been created to share, exchange, comb and optimize all kinds of high quality education resources, and ultimately improve the network teaching environment.

The popularity of Internet education has been increasing. China’s national education resources public service platform was first tried in late 2012, and nearly 2/3 provinces in China set up provincial education resources platform. The promotion of Internet and smart phones, tablet computers, e-book bags and other media has made the rational allocation of quality education resources convenient and feasible. In addition, the rate of broadband network connectivity and the coverage rate of multimedia classrooms in schools in various regions is increasing. The phenomenon of educational workers using multimedia to carry out classroom teaching and downloading high quality education resources after class is becoming more and more popular.

Educators’ level of information technology has gradually improved. The research on the attitude of teachers in implementing Internet in education shows that teachers are interested in
online education[7]. China’s education department has successively issued the “Key points of education informatization in 2014” and the “Opinions of the Ministry of Education on Implementing the National Information Technology Applicability Enhancement Project for Primary and Secondary School Teachers,” which has played an extraordinary role in improving information technology for educators. Based on the guidance of these two documents, Chinese educators took the initiative to participate in various types of information technology skills training and exchange seminars. The level of information technology continued to increase, and educators using the Internet for teaching and research activities continued to increase [8].

**Problems and Countermeasures to Popularize High Quality Education on the Internet**

Poor concept of resource sharing. The sharing of quality education resources is seen as a free ride. Many people only want to use and are unwilling to build. A large number of shared entities believe that only high-quality educational resource owners can share them. This shared asymmetry of subject and object leads to the object being completely dependent on the subject, while the shared subject with high quality educational resources excludes a large part of the object from the scope of sharing. In addition, the establishment of a standardized sharing platform to share resources, but ignored the needs of the demand-oriented, the results still cannot fundamentally solve the demand for quality education resources demand. Therefore, quality education resources should be diversified, diversified, and rich.

Insufficient help from the national policy system. The imbalance in education is gradually widening. Education policy is a decisive factor that affects the allocation of educational resources. The government plays an important role in the allocation of educational resources. To adjust the allocation of educational resources, the government must do something. For example, almost all high-quality educational resources are concentrated in developed regions. The construction of quality resources requires strong support from the government’s finances. This is not only the matter of the government and the school. The government should actively guide enterprises and other social forces to invest in, support the development and promotion of resources, and establish a government-led, multi-participation mechanism for the sharing of resources.

Standardization of Quality Education Resources Sharing Platform. The sharing of quality education resources is a systematic project that should follow certain principles. It is necessary not only to consider the integrity, purpose, level, and stability of the platform, but also to consider the basic rules for the sharing of quality education resources, that is, the rules for uniform and coordinated internal and external factors. A shared platform without scientific standardization will result in wasted and overlapping resources between the various regional platforms. When carrying out the experience sharing of the quality education resource sharing platform at this stage, the standards for the sharing of quality education resources in the future should be formulated. With the standards, there will be order in the sharing of quality education resources, so that quality education resources can be reused maximally instead of repeatable construction[9].

**Development Trend of online Education and “MOOC” Mode**

With the rapid development of information technology, “teaching” and “learning” are undergoing profound changes. With the development of the Internet, especially the mobile Internet, online education has developed rapidly and the scale of users has continued to grow. Online education has become an important way for people to acquire knowledge. As an
emerging online education model, MOOC (Massive Open Online Course) is distinguished from traditional online education by large-scale and openness. In the future, it will gradually realize the sharing of educational resources and bring about new changes for traditional education.

The MOOC mode is based on network technology and features large-scale online learning. With the aim of sharing education resources globally, it has a free, open, and new-style education mode that is not limited by time and space. It compensates for the shortcomings of existing models. However, due to the influence of many factors, there are still some problems in the construction of MOOC resources, such as the lack of a network resource sharing platform, the lack of resource standards, a single economic source, and the vague definition of the educated person, which affects the development of college education resource sharing model. In this regard, efforts should be made to promote the development of network technology, increase the number of network resource platforms, establish and improve resource sharing standards, and promote the sharing of educational resources in colleges and universities. In addition, there is no clear goal and supervision of the educated, the lack of interaction in the curriculum, which leads to the low completion rate of the curriculum, which also shows that the development of online education needs further exploration. Although there are many problems in the current MOOC and online education model, as a new way of sharing education resources, they have the advantage that other sharing modes do not have, and it is the trend of college education resources sharing[10].

Strategies for Equalizing Regional Quality Education Resources

Establish a Quality Education Resource Sharing Mechanism

The policy regulation mechanism should be formulated to avoid the waste of human, material and financial resources in the redevelopment of regional resources, and encourage schools and teachers to actively participate in the cross regional education and sharing of educational resources, so as to realize the rational planning of educational resources. The management and service mechanism should be formulated to achieve standardized management of cross regional educational information resources, provide convenient services, and update information and classified management in a timely manner. The standard mechanism and the quality monitoring mechanism are formulated to avoid the decentralization of educational information resources in various regions and difficult to find and use, to realize the standardized management of resources, to ensure the quality of resources from the source, and to improve the efficiency and utilization of resources. At the same time, in order to encourage front-line teachers to actively participate in the construction and sharing of educational information resources, we should use resource construction incentive recognition mechanism[11].

In order to expand the quality education resources quickly, make more schools grow into high quality schools, ensure that high quality schools develop more smoothly, steadily and sustainably, and the formation of high quality schools is an urgent task. The formation mechanism of quality schools refers to the relationship and coordination of the most basic elements that affect the formation and development of quality schools. The school-running philosophy, common vision, management system, school-running behavior and school culture are the most basic elements for creating a quality school. From this point of departure, five basic mechanisms for the creation of quality schools can be formed, namely, the orientation
mechanism, motivation mechanism, guarantee mechanism and operating mechanism. And lead mechanism [12].

**Improve the Quality of Educational Facilities**

Based on reality, strengthen the “hardware” support. The important content of the interactive development of regional education is the sharing of teaching resources and the development of remote interactive teaching. These two tasks have put forward high requirements for the hardware equipment. In view of this, in the construction of education informatization, it is necessary to combine the actual conditions of the region, adhere to the principle of “basing the integration of urban and rural areas, and promoting the modernization of equipment”, and follow the principle of “based on application, increasing investment, overall improvement, and weak support”. Through the school report plan, early intervention in the district, scientific rational argumentation, and step-by-step implementation of the overall plan, the district’s schools will be provided with information technology hardware and equipment. Popularizing multimedia equipment facilitates teachers to carry out education and teaching by means of multimedia. Build remote interactive teaching classrooms and formulate relevant plans, upgrade the education metropolitan area network, strengthen the construction of educational resource bases, and promote long-distance interactive teaching to move towards normalization[1].

**Give full Play to the Role of the Internet**

As mentioned in the previous article, the use of network education resources sharing platform for online learning can effectively save cost, improve the reuse rate of resources, and contact rich quality education resources. To build a network sharing platform, we need to improve the quality of network resources, ensure rich content, update resources timely, and carry out scientific and standardized management. Promoting the sharing of network resources requires mobilizing and organizing teachers, students, and related educational institutions to invest in the sharing of educational resources, enriching the teaching activities and teaching process resources into the resource bank, making the network resources constantly updated and resource sharing more vital[3].

Big data have a significant impact on higher education, practice, from improving learners experience, and knowledge through enhanced academic studying, to more operative decision making, and to planned response to varying overall trends. Big data have the potential to address some of the crucial challenges facing the current higher education[13]. With large volumes of student information, including enrollment, academic and disciplinary records, institutions of higher education have the data sets needed to benefit from a targeted analytics. Big Data can provide institutions of higher education the predictive tools they need to improve learning outcomes for individual students as well ways ensuring academic programmes are of high-quality standards. By designing programmes that collect data at every step of students learning processes, universities can address student needs with customised modules, assignments, feedback and learning trees in the curriculum that will promote better and richer learning[14].

**The Introduction and Transformation of Foreign Quality Education Resources**

Since the reform and opening up, China has made great progress in higher education, but compared with the advanced countries in the world, there is still a gap between the educational concept, educational mode, educational content, educational methods, educational
management system and operating mechanism. It is an important strategic choice for China’s higher education reform and development to introduce high-quality educational resources abroad through cooperative education. We should improve the quality level of foreign partners and strengthen substantive cooperation with world famous schools and special disciplines. At the same time, strict selection criteria should be formulated and genuine high-quality educational resources should be introduced. Starting from aspects such as school concept, institutional model, curriculum and teaching materials, teaching and evaluation methods, and personnel training, we must further emancipate our minds, pursue reforms, correctly handle the relationship between innovation and conservation, give full play to the role of government in guiding and coordinating, introduce real quality education resources and for our own use, promote the rapid development of high-quality education in China[15].

Conclusion
Education is the cornerstone of national revitalization and social progress. We must adhere to the strategy of giving priority to education development. In order to further promote quality education, we should continue to explore the sharing mode of Internet education resources, build a scientific and standardized sharing platform, solve the problems that restrict the development of education in our country, make everyone get high quality learning experience, improve the whole level of education development and international competitiveness, and become a leading power in international education.

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