Research on the Effectiveness of Informatization Education Development Strategy Activities

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Abstract: In the face of increasingly fierce international competition, all countries in the world regard the development strategy of education informatization as a forward-looking choice to promote education reform and enhance national comprehensive competitiveness. After decades of development, China has made remarkable achievements in education informatization, but there is still a gap between China and developed countries. This paper analyzes and compares the effectiveness of the time background and strategic objectives of the development strategy of education informatization in China and the United States. The study found that China emphasizes narrowing the digital divide and achieving balanced development of education, while the United States aims to achieve structural change in the education system.

Keywords: International competition; Education informatization; Development strategy

1. Introduction

Throughout the world, education informatization has become a strategic choice for countries to achieve a strong human resource and rapid economic and social development. The United States, the United Kingdom, Singapore, Japan, South Korea and other countries have long been keenly aware of the great role of information technology in education. Through implementing a series of educational reform policies and education informatization development strategies, they have made remarkable achievements in information technology infrastructure, information technology and curriculum integration, digital learning resources, information management and other aspects. After more than ten years of development, China has also made remarkable achievements in the development of education informatization, but there is still a big gap between China and developed countries.[1].

2. Development Plan of Education Informatization

2.1 China's Development Plan of Education Informatization

As a foundation project to cultivate talents and improve national quality, basic education plays an important role in the education reform facing the 21st century. Since the 21st century, with the development and implementation of major projects in China's primary and secondary schools, great achievements have been made in education informatization, especially in the construction of education information infrastructure.

The Ten Year Plan clearly states that education informatization is the cornerstone of improving national information literacy and the top priority of education informatization. In the development task part of the Ten Year Plan, the corresponding development tasks are proposed for all levels and types of education in China. Among them, the fourth idea specifically introduces the development plan of education informatization. The Ten Year Plan proposes that the main task of China's education informatization in the next ten years is to narrow the digital gap and promote the sharing of high-quality education resources.[2].

2.2 National Educational Technology Plan of the United States

The United States has always attached importance to the application of information technology in education, and strives to promote the change and development of education through information technology. Since 1996, the United States Department of Education Cooperation has formulated a national educational technology plan every five years on average. The National Education Technology Plan of the United States is a programmatic document for the development of American education informatization. It is

formulated according to the national conditions and the current situation of education. Each plan puts forward the goals, requirements and suggestions for the reform of the basic education system to meet the requirements of the education informatization at that time. With the formulation and implementation of the plan, American education informatization has made remarkable achievements.

1)Challenge of technical literacy

In the 1990s, information technology swept the United States and permeated all aspects of American society. Facing this information wave, American education is facing a major challenge -- the challenge of technical literacy. In 1996, the National Education Technology Plan proposed that technical literacy refers to computer skills and the ability to use computers and other information technologies to promote learning and improve productivity and performance. Like traditional skills such as reading, writing and computing, technical literacy is a necessary ability for citizens in the information age. However, information technology in most parts of the United States has not been widely used in schools. Only 4% of schools can provide a computer for every five students. 9% of school classrooms are connected to the Internet.

2) Initial achievements in the application of educational technology

The first national education technology planning implementation effect book in the United States. The federal, state, and school districts have invested heavily in infrastructure, teacher professional development, technical support, content development, and so on, so that primary and secondary school teachers, students, educational institutions, private enterprises, and so on can benefit from it. The United States is aware of the core position of technology in education. Emerging technology can create new learning content, new teaching strategies and teaching tools, thus helping students acquire the knowledge and skills needed in the 21st century.

3. Comparative Analysis

3.1 Background Comparison

First of all, from the time dimension, the United States developed the development strategy of education informatization at the end of the last century. It was during this period that the trend of information technology began to sweep the globe. The United States is aware that information technology will bring great challenges and development opportunities to education. In order to enable teachers, students and school leaders to meet challenges, make full use of information technology to promote learning and teaching, improve learning quality and teaching effect, and realize the reform and development of education, the United States formulated the development strategy of education informatization in 1996.

Secondly, the background of the development strategy of ICT in education in China and the United States presents different characteristics:

1) According to the implementation of the previous educational technology plan and the problems in the education system, the United States will propose a plan for the next stage. The United States Educational Technology Office will evaluate the implementation effect of the previous stage based on the survey data of the National Education Data Center each time it prepares the national educational technology plan. Based on the evaluation results, combined with the main problems in the education system, the plan for the next stage is formulated in a targeted manner, and then the information technology is used to improve the current situation of education.

2) China plans to cope with the fierce international competition and meet the needs of domestic education development. In order to cope with international competition and realize the goal of building a learning society and a powerful human resource country in China, it is urgent to issue a national education informatization planning document to guide the national education informatization work. As the cornerstone of cultivating talents in the 21st century, basic education urgently needs to issue the development plan of education informatization to guide the national informatization construction. After more than ten years of efforts, China's education informatization has made remarkable achievements, but regional development differences are relatively obvious, and there is a large "digital gap" between the east and west, between cities and rural areas. The Ten Year Plan has pointed out the direction for promoting the development of ICT in education.

3.2 Target Comparison

In the overall strategy part of China's Ten Year Plan, the overall development goal of China's education informatization is put forward, that is, to basically build an information-based learning environment where everyone can enjoy high-quality educational resources, basically form an information-based support service system for a learning society, basically achieve full coverage of broadband networks, significantly improve the level of education management informatization.

The strategic objectives of American education informatization have changed in different periods. The United States attaches great importance to the use of information technology to completely transform the education system and improve efficiency. China pays attention to the coordinated development of infrastructure and digital education resources.

4. Characteristic Analysis

4.1 Goal Orientation

1) China: Narrowing the Digital Divide and Promoting the Balanced Development of Basic Education

Promoting education equity and improving education quality is the fundamental task of education development and reform, and also the ultimate pursuit of education informatization. At present, there are nearly 320000 primary and secondary schools in China, most of which are located in rural areas. The geographical location, school conditions, teachers' level, and education quality are unfavorable compared with urban schools. In order to promote the balanced development of basic education, the Ten Year Plan proposes to take a number of measures to support the informatization construction in economically underdeveloped areas, focusing on supporting the informatization of schools in rural area.

2) The United States: Building a Learning Society Supported by Technology and Realizing Fundamental Changes in the Education System

The United States has deeply realized that information technology is not only a tool to improve learning efficiency and learning effect, but also has a revolutionary impact on education. The Educational Technology Plan 2010 proposed the 21st century learning model supported by technology to infiltrate information technology into learning, evaluation, teaching, infrastructure and other aspects, redesign the educational structure and process, promote and enhance the level, level and efficiency of information technology application in the educational field.

5. Conclusion

This paper analyzes the content of the development strategy of education informatization in China and the United States, aiming to help Chinese education informatization researchers and decision-makers understand the gap, learn from and learn from the experience of the United States, and propose localization development strategies.

References:

[1] Wang Xing, Li Huailong. The evolution characteristics and comparative study of the Horizon Report on higher education in China and the United States under the background of education informatization 2.0 [J]. China Education Informatization, 2021 (08): 33-41.

[2] Mi Yong, Wan Wenjing. A comparative study on the construction of education informatization in Chinese and American universities [J]. Journal of Mudanjiang University, 2020, 29 (09): 121-124.

[3] Lai Yiru, Zhang Jing. Comparative Study on the Development Plan of Regional Education Informatization between China and the United States [J]. China Education Informatization, 2020 (09): 1-5.