



Promoting the Digitization of Education to Facilitate High-Quality Development of Education in Jiangsu

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Abstract. With the development of digital technology, the digital transformation of education has become an inevitable trend. Although education in Jiangsu continues to innovate and change. There are still problems such as prioritizing knowledge education over moral education in some areas, imbalanced urban-rural education and teaching resources, and insufficient integration of industry and education. The province still needs to further promote the digitalization of education, overall integration of primary, secondary, and tertiary education development. The province also need utilize the advantages of the platform to enhance the level of teachers, provide high-quality learning resources centered on students and fully integrate industry and education to meet social needs. These will continuously help promote the high-quality development of education in Jiangsu.

Keywords: Education in Jiangsu, Digitization, High-quality.

1 Introduction

Over the past decade in the new era, Jiangsu's education sector has continuously undergone transformation and innovation, placing the digital transformation of education at the forefront of its priorities. A series of practical and effective measures have been implemented to explore innovation and vigorously promote the digitization of education. With its digital technology development ranking among the forefront nationwide, Jiangsu has achieved remarkable results. In the new journey towards achieving Chinese-style modernization, technology is crucial, talent is the foundation, and education is fundamental. How can we provide an education that satisfies the people? In the report to the 20th National Congress of the Communist Party of China, General Secretary Xi Jinping pointed out, "We will promote the digitization of education and build a learning society and a major country of learners where all people engage in lifelong learning."^[1] This important theoretical exposition has pointed out the direction for Chinese education and laid a theoretical foundation for promoting educational reform and innovation, as well as accelerating the construction of a powerful educational nation.

2 Present Situation

Since the 18th National Congress of the Communist Party of China, Jiangsu Province has achieved significant results in education. But there is still a certain gap between it and the high-quality education level, mainly manifested in the following three aspects.

2.1 Some Regions Attach Great Importance to Knowledge Education, But do Not Pay Enough Attention to Art, Aesthetic Education, Labor Education, Etc

In September 2024, General Secretary Xi Jinping proposed at the National Education Conference to ‘focusing on cultivating socialist builders and successors with comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor’.^[2] Various cities in the province actively promoted the practical model of combining student ‘five educations’ and achieved significant results. However, in the process of promoting educational development, there is indeed an excessive emphasis on knowledge education and insufficient attention to art education, aesthetic education, and labor education in some areas. This educational tendency may lead to students having a wide range of knowledge. But there are shortcomings in aesthetic taste, innovative thinking, practical ability, and other aspects.

2.2 Unequal Distribution of Educational and Teaching Resources between Urban and Rural Areas

The imbalance of educational and teaching resources between urban and rural areas is an important issue facing the current education field. Due to various factors such as history, economy, and geography, rural areas often find it difficult to access educational resources at the same level as urban areas, including teacher resources, teaching facilities, library materials, information technology, and other aspects. This imbalance not only limits the learning opportunities and development potential of rural students, but also exacerbates the urban-rural education gap, affecting educational equity and social progress.

Table 1. Education level of the population in Jiangsu Province (2022)

Number of educated individuals	Rural	Urban
Pre-school education	764	1565
Primary school	31480	54184
Junior high school	36323	81236
High school	11866	49129
Junior college	5072	36507
Undergraduate college	2015	32773
Graduate student	90	3784

According to the data from ‘Jiangsu Statistical Yearbook-2023’^[3] (Table 1), the number of rural educated individuals is significantly lower than that of urban educated individuals at different stages of education, including preschool education, primary

school, junior high school, high school, college diploma, undergraduate education, and graduate education. The proportion of rural and urban educated individuals with a bachelor's degree or above is less than 10%.

2.3 The Integration of Industry and Education is Insufficient, and the Lifelong Learning Atmosphere Needs to be Further Strengthened

The insufficient integration of industry and education is a significant problem between the current education system and industrial development. Some industry education integration projects are still at the surface cooperation stage. The information asymmetry between schools and enterprises. This makes it difficult for schools to accurately grasp market demand, and enterprises to understand students' real abilities. It limits the effective transformation of educational achievements into actual productivity. It also affects the comprehensive improvement of students' vocational abilities. At the same time, the creation of a lifelong learning atmosphere is still weak. It has not fully stimulated the enthusiasm and motivation of people from all walks of life to continue learning and lifelong growth.

3 Effective Measures

3.1 Strengthening Advantages, Addressing Weaknesses, and Achieving Interconnection and Interoperability

A provincial digital information leadership agency has been established to research and formulate the "14th Five-Year Plan" for information development, making overall plans and promoting the information construction of colleges, universities, and primary and secondary schools across the province. Under the guidance of the higher-level information leadership agency, colleges and universities should fully utilize their own resources, aim to build "smart campuses," [4]refine workflows, clarify implementation paths, and implement the plan step by step. System research and development teams should be established, big data centers should be set up, data construction standards should be standardized, and management and service support should be provided to enhance the overall level of information management. Colleges and universities should collaborate closely, exchange resources, and learn from each other's strengths. The research and development teams should be scientific, efficient, and comprehensive in their collection of digital materials, developing auxiliary programs that are novel, flexible, easy to understand, and easy to remember. These efforts aim to improve teaching efficiency and enhance the learning experience for students. Online learning spaces should be built, utilizing big data and cloud computing platforms as carrier resources, integrating teaching, research, practice, and daily life, and constructing a "teaching-research" platform that achieves "one course, one space" and "one person, one space." Primary and secondary schools should vigorously promote the construction of information network infrastructure, establish network connections among all schools, and

achieve full network coverage. They should also ensure efficient, fast, reliable, and secure information reception and maintenance to provide network services for teachers and students.

3.2 Leveraging Platform Functions to Facilitate Teacher Professional Development

Strengthen top-level design and develop an online training and management platform for teachers in primary, secondary, and higher vocational education. With the main focus on "strengthening foundations, enhancing abilities, and improving standards," the platform should adopt strategies such as integrating famous schools, collaborating with renowned individuals, sharing resources, and gathering outstanding talents such as educational experts, Changjiang Scholars, special-grade teachers, famous teachers in Jiangsu, and academic leaders. The platform should systematically compile teaching cases and offer online teaching through "air classrooms," "live streams by famous teachers," and other means. Based on problem-oriented approaches, the platform should address difficulties and confusions that teachers encounter in teaching, and provide "expert guidance" through one-on-one training modules, serving as a quick and convenient channel for solving problems and improving abilities.

3.3 Providing High-Quality Learning Resources Centered on Students.

In the era of intelligence, the digitization of education is essential for improving students' learning quality. Supported by educational digitization, the 'Internet +' and big data technologies are used to complete the full digitalization of the 'teaching, learning, testing, and evaluation' process.^[5] A five-in-one scientific literacy evaluation model is established, encompassing intelligent knowledge, intelligent ability, intelligent thinking, intelligent application, and intelligent attitude. On the platform, service scenarios and operation modes should be improved, and operation procedures should be simplified to enable students to easily and quickly access virtual tours online. Select historical artifacts, cultural heritage sites, libraries, and other resources to create video and audio courses, and digitally deliver these resources to the campus smart platform. Through the system, 'immersive' 'interactive' and 'experiential' classrooms should be constructed to provide students with virtual scenarios that create an immersive experience. On the micro-teacher platform, students can initiate learning modes based on the menu, allowing them to listen to lectures by famous teachers and solve difficulties and confusions. The digitization of education attracts students' enthusiasm for autonomous learning, stimulates their interest in online learning, enriches their knowledge, and enhances their learning abilities.

3.4 Integrating Industry and Education to Meet Social Needs

Building a lifelong learning system that serves the whole people is a strategic task for accelerating the modernization of education, realizing Chinese-style modernization, cultivating innovative talents, building a powerful educational nation, and rejuvenating

the country through science and education. To meet the requirements of "everyone can learn, everywhere can be a place for learning, and any time can be a time for learning," colleges and universities should extend their knowledge chains, expand cooperation channels, and actively collaborate with well-known local enterprises to jointly build educational resource libraries. Based on enterprise work tasks, business processes, management responsibilities, and service guarantees, the development of professional teacher goals, tasks, and course requirements should be carried out. This will provide autonomous learning channels for teachers and students in colleges and universities, as well as for enterprise management personnel, employees, and social learners. Utilizing technologies such as virtual reality, video and audio, cloud computing, and big data, enterprise work scenarios should be transformed into digital simulation scenarios from multiple angles and perspectives. ^[6]Blended and contextual teaching modes should be implemented to attract learners' interest in autonomous learning and their desire for knowledge.

3.5 Integrating Science and Education, Collaborating in Innovation, and Enhancing Service Capabilities to Society

In today's rapid development of the Internet, it has brought people closer together, making countries feel like they are in the same village. Exploring new knowledge, understanding foreign cultures, and grasping new information have become lifelong pursuits for people. The Internet is closely related to people's work, study, and life, better satisfying their needs for lifelong learning. While building their own digital libraries, colleges and universities should have a global perspective, pursue excellence, and actively collaborate with renowned universities, research institutes, top media outlets, and Internet platforms both inside and outside the province. They should digitize professional literature, historical origins, party history stories, and red resources, and use new technologies to launch a series of reading, viewing, and listening works to meet the learning needs of learners at different levels in society. At the same time, cultural exchanges between China and foreign countries should be facilitated. Utilizing the Internet platform, they should actively partner with world-renowned universities to create and promote audio and video content such as "Civilized China," "Walking in China," and "Ancient Jiangsu," vividly introducing China's vast territory, rich resources, cultural heritage, local customs, and kind-hearted people to foreign friends. Through these efforts, we can also understand foreign customs, lifestyles, cultural differences, and other ideologies, seeking common ground while reserving differences for common development.

4 Conclusion

In the new era and new journey, we must accelerate the implementation of digital education, improve the standardized system for educational digitization, strengthen the upgrading and maintenance management of digital systems, build a new generation of digital education platforms, increase the supplementation and updating of digital library

knowledge content, enrich digital educational resources and service provision. We should pursue practical results in teaching processes, methods, evaluations, and governance, allowing the digitization of education to drive the forward development of education in Jiangsu.

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