

Construction and Practical Research on the Collaborative Education Model of Promoting All-round Development in the Context of Digital Empowerment

Jie Mei

Department of Teaching Affairs, Wanjiang University of Technology, Maanshan 243031, Anhui, China

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Abstract: Against the backdrop of the rapid development of digital technology, the "five-education integration" as the core content of China's education policy, the innovation and upgrading of its education model has become a key issue in educational reform. Digital technology, with its efficiency, interactivity and inclusiveness, provides a brand-new path for the coordinated development of moral, intellectual, physical, aesthetic and labor education. Based on the core features of digital empowerment and in combination with the educational goal of promoting all-round development in moral, intellectual, physical, aesthetic and labor education, this article explores the core framework of a collaborative education model that promotes all-round development in moral, aesthetic and labor education under digital empowerment, and proposes specific practical strategies, aiming to provide theoretical references and practical guidance for the high-quality development of education in the new era.

1. Introduction

The "five-education integration" serves as the core carrier for fulfilling the fundamental task of fostering virtue and nurturing talent, with the core being to achieve the organic integration and synergistic enhancement of the five aspects of education^[1]. With the in-depth penetration of digital technologies such as big data and artificial intelligence into the education sector, it has made it possible for the coordinated development of the five aspects of education to break through the limitations of time and space, integrate resources and innovate carriers. In the current implementation of the five-education integration, there are still problems such as scattered educational resources, the lack of a collaborative mechanism, and the shallow application of digital technology, which lead to the five types of education working independently and making it difficult to form a synergy^[2]. Based on this, exploring the construction and practice of a collaborative education model that integrates the five aspects of education under digital empowerment is of great significance for solving the predicament of education and improving the quality of education.

2. Construction of a collaborative education model that promotes the all-round development of students in the context of digital Empowerment

2.1 Build the core framework

Based on the core features of digital empowerment and the collaborative logic of promoting all-round development in the five aspects of education, this paper constructs the core framework of the "one body, two wings, and three supports" collaborative education model for promoting all-round development in the five aspects of education. The concept of "integration" centers on fostering virtue and nurturing talent, with the fundamental goal of cultivating well-rounded individuals, and runs through the entire process of collaborative education in the five aspects of education. The "two wings" refer to the digital platform as the technical wing and the collaborative mechanism as the institutional wing. The technical wing provides technical support for collaborative education, while the institutional wing offers guarantees for it. The "three supports" refer to the effective operation of the collaborative education model, which is jointly guaranteed by a high-quality digital resource library as the resource support, a high-quality teaching staff as the talent support, and a diversified evaluation system as the evaluation support.

2.2 Build a digital collaborative platform and integrate educational resources

The digital collaborative platform is the core carrier for achieving collaborative education in the five aspects of education. Its core function lies in integrating various educational resources to achieve efficient collaboration among the five aspects of education and among families, schools and communities^[3]. The platform should cover five core modules. The first one is the resource integration module, which integrates various high-quality digital resources for moral education, intellectual education, physical education, aesthetic education, and labor education, including course resources, activity resources, practical resources, etc., to build a diversified digital resource library and achieve classified search and precise push of resources. The second is the teaching interaction module, which supports teachers in conducting integrated online and offline teaching, enabling real-time interaction between teachers and students as well as among students themselves, and providing support for the integrated teaching of the five aspects of education. The third is the collaborative management module, which realizes information sharing and collaborative management among schools, families and society, clarifies the educational responsibilities of each party, and forms an educational synergy. The fourth is the process tracking module, which, based on big data technology, tracks students' development in all dimensions of the five aspects of education in real time, providing data support for personalized education. The fifth is the evaluation and feedback module, which builds a diversified evaluation system to achieve automatic statistics and feedback of evaluation data, providing a basis for the optimization of the education model.

2.3 Improve the collaborative mechanism for the five aspects of education and strengthen institutional guarantees

By leveraging the advantages of digital empowerment, we should improve the collaborative mechanism for the five aspects of education and provide institutional guarantees for the operation of the collaborative education model. First, establish an internal collaborative mechanism, set up a leading group for the five-education collaborative education, coordinate the education work of various departments and subjects, promote regular communication and collaboration among teachers of moral education, intellectual education, physical education, aesthetic education and labor education, and organically integrate the five-education goals into the teaching syllabus and

teaching plan of each subject^[4-5]. Second, establish a collaborative mechanism among families, schools and communities. Build a communication bridge through digital platforms, regularly push educational resources and methods for the five aspects of education, guide parents to establish correct educational concepts, integrate high-quality social resources, and establish off-campus practice bases to provide students with diversified practical opportunities. Third, establish a resource sharing mechanism to achieve the sharing of high-quality educational resources within the region through digital platforms, promote the balanced allocation of educational resources between urban and rural areas, and narrow the educational gap^[6].

2.4 Build an implementation path for the integration of the five aspects of education under digital empowerment

The core of the integration of the five educations under digital empowerment lies in the organic integration of digital technology and the teaching of the five educations, achieving mutual penetration and synergistic enhancement of the five educations. The specific implementation path is shown in Table 1.

Table 1 Implementation Path Table for the Integration of the Five Educations under Digital Empowerment

The dimension of nurturing people	Digital technology application direction	Integrated implementation path
Moral education	Ideological and political digital platforms, virtual simulation technology, and big data analysis	Build a digital platform for ideological and political education and integrate red educational resources; Carry out situational moral education activities by using virtual simulation technology; Based on big data analysis of students' ideological trends, carry out precise moral education guidance
Intellectual education	Online education platforms, artificial intelligence teaching assistants, and big data student situation analysis	Integrate high-quality subject resources through online education platforms; Personalized Q&A and tutoring are achieved through artificial intelligence teaching assistants. Based on big data analysis of students' learning conditions, optimize teaching strategies to achieve precise teaching
Physical education	Intelligent sports equipment, sports big data platforms, and sports apps	Monitor students' sports data by using smart sports devices; Analyze students' physical conditions through the sports big data platform; By leveraging sports apps to push personalized exercise plans and carry out integrated online and offline physical training[7]
Aesthetic education	Digital art platforms, VR aesthetic education resources, online art galleries	Build a digital art platform and integrate high-quality aesthetic education resources; Carry out immersive aesthetic education experiences by using VR technology; Guide students to appreciate classic artworks and carry out digital art creation through online art galleries
Labor education	Virtual labor practice platform, labor education big data platform	Carry out simulated labor practice by using the virtual labor practice platform; Record students' labor processes and achievements through the labor education big data platform; Integrate off-campus labor resources and carry out labor practice activities that combine online and offline

3. Practical Strategies for the collaborative education model of Promoting all-round development in the Context of digital Empowerment

3.1 Strengthen the construction of digital infrastructure to lay a solid foundation for empowerment

Digital infrastructure is the prerequisite for achieving digital empowerment and collaborative education in the five aspects of education^[8]. On the one hand, increase investment in educational digital infrastructure, improve the construction of hardware facilities such as campus networks, intelligent terminals, and digital platforms, and ensure the smooth application of digital technology in education and teaching. On the other hand, efforts should be made to promote the standardization of digital resources, establish unified standards and sharing mechanisms for digital resources, integrate various high-quality digital resources, and build regional digital resource libraries to achieve efficient sharing and precise push of resources. At the same time, attention should be paid to the construction of digital infrastructure in rural areas and weak schools. Through policy support and resource inclination, the digital divide between urban and rural education should be narrowed to promote balanced educational development.

3.2 Enhance teachers' digital literacy and strengthen talent support

Teachers are the core subjects of digital empowerment for the collaborative education of the five aspects of education, and their digital literacy directly affects the implementation effect of the education model. First, establish a regular digital literacy training system for teachers, conducting specialized training on the application of digital technology, the integration of the five educations, and the operation of digital platforms, to enhance teachers' ability to carry out collaborative education using digital technology. Second, build a platform for teacher exchange, encourage teachers to share their experiences and achievements in digital empowerment of the integrated teaching of the five educations, carry out cross-disciplinary and cross-regional teaching research activities, and promote mutual learning and common progress among teachers. Third, establish an evaluation mechanism for teachers' digital literacy, incorporate the application ability of digital technology into the teacher assessment and evaluation system, and stimulate teachers' enthusiasm and initiative to enhance their digital literacy^[9].

3.3 Promote innovation in teaching models and deepen the integration of the five aspects of education

Supported by digital technology, we should promote innovation in teaching models and deepen the organic integration of the five aspects of education. First, carry out project-based learning, design interdisciplinary projects around specific themes, guide students to apply knowledge from multiple disciplines to solve practical problems, and achieve the integration and infiltration of the five aspects of education. For instance, with the theme of "Rural Revitalization", students are guided to conduct investigations and research, propose solutions, participate in volunteer services, design rural beautification plans, and carry out outdoor research to achieve the coordinated development of the five aspects of education. Second, promote integrated online and offline teaching, utilize digital platforms to integrate high-quality resources, and carry out a teaching model that combines online preview, offline teaching, and online expansion, to expand teaching time and space and enhance teaching effectiveness. Thirdly, virtual simulation technology is utilized to carry out immersive teaching, creating real learning scenarios for students and enhancing their interest and participation in learning.

3.4 Strengthen the collaboration among families, schools and communities to form a joint force for education

Give full play to the bridging role of digital platforms and strengthen the collaborative cooperation among schools, families and society. First, build a digital platform for collaborative education among families, schools and communities, regularly push information such as resources for the five educations, teaching updates and students' development situations, guide parents to participate in the students' education process, and enhance parents' educational capabilities^[10]; Second, integrate high-quality social resources, establish cooperative relationships with science and technology museums, museums, enterprises, communities, etc., release information on practical activities through digital platforms, organize students to carry out practical activities that combine online and offline, and broaden the channels for nurturing talents. Third, establish an incentive mechanism for collaborative education among families, schools and communities. Commend and reward families and social institutions that actively participate in collaborative education to stimulate the enthusiasm of all parties to engage in education.

4. Conclusion

Digital empowerment offers a crucial opportunity for the coordinated education of the five aspects of education, and building relevant models is an inevitable requirement of educational reform. The "one body, two Wings, and Three Supports" framework proposed in this article provides a systematic solution for the coordinated development of the five educations. In practice, it is necessary to strengthen key links such as basic construction and teachers' qualities, leverage the enabling role of digital technology, and achieve the integrated and efficient development of the five educations. In the future, it is necessary to continuously pay attention to the trend of the integration of digital technology and education, explore new paths for the coordinated development of the five aspects of education, and provide a more solid support for cultivating all-round developed talents.

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