Research on High-Quality Development of Patriotism Education for Border Preschool Children Empowered by Digital Technology

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Abstract: *In the context of high-quality development of basic education, patriotism education faces key questions such as for whom to cultivate talent, how to cultivate talent, and what kind of talent to cultivate. Digitalization of education relies on all parties working together around shared value propositions, utilizing digital technology to stimulate educational innovation, and designing a collaborative governance framework with multi-party participation and resource convergence. Adhering to the concept of starting from a young age, this paper points out that the "practice schema" encompasses elements such as habits, intentions, time, and context, providing a theoretical framework for understanding the integration of digital technology in educational development. Based on the practice of digital transformation in early childhood patriotism education, this paper optimizes the details of educational practice by solving practical problems, thereby promoting the healthy growth of children.*

Keywords: Digital technology, Digital education, Patriotism education, Early childhood education.

1. Introduction

Patriotism education, as an important part of ideological and political education, has a profound historical origin and rich cultural connotation. Driven by the digital wave, the education field is undergoing an unprecedented transformation, and digital education is becoming a common consensus [1]. In the context of the digital transformation of patriotism education, border children, as a special educational group, face particularly significant opportunities and challenges. Strengthening patriotism education for children in border areas and cultivating their national pride and national consciousness are crucial. How to make full use of digital means to improve the quality of education and cultivate children's patriotism and national identity has become an essential path for educators and practitioners.

2. The Value Guidance of Digital Technology in Patriotism Education for Border Children

Digital transformation has injected new vitality into patriotic education [2]. On the one hand, digital technology has broken the time and space limitations of traditional education, providing a large amount of diverse educational content, making education more vivid and engaging. On the other hand, digital technology has brought innovation to patriotic education, and technologies such as virtual reality and artificial intelligence have made educational forms more diverse and personalized [3]. The information overload and value conflicts faced by the digital environment have interfered with children's cognition. Therefore, it is necessary to give full play to the advantages of digital technology and cultivate children's national identity and national pride.

Digital transformation in education is a process where all participants, based on shared value propositions, leverage digital technologies to drive educational innovation. Firstly, from a macro perspective, the ultimate goal of educational reform is always to guide the direction of digital transformation. Secondly, at the meso level, the goals of digital transformation include enhancing the leadership of educational organizations, utilizing intelligent technologies to improve educational quality, and developing data governance capabilities to ensure effective management of data standards, high-quality data services, and privacy protection. Finally, at the micro level, the core of digital transformation lies in the transformation of teaching practices, involving comprehensive changes in learning methods, teaching methods, and teaching management and evaluation. Through this transformation, education will further deepen its shift towards personalization, precision, intelligence, scientific rigor, and lifelong learning (Figure 1).

2.1 Education as the Foundation: The Importance of Digitalization in Early Childhood Patriotism Education

Education is a complex system with people as the main body. The content and orientation of digital transformation of education are not as simple and direct as the digital transformation of most industries or fields. Digital transformation of education is closely linked to the understanding of education and the understanding of people [4]. The results of digital transformation of patriotism education for young children should ultimately be reflected in teaching and educating people and promoting human development. By constructing a knowledge graph that reveals the internal connection of subject knowledge through digital technology, its basic composition is a triple of "entity, relationship, entity". Entities are interconnected through relationships, forming a complex network knowledge structure [5]. Digital technology makes patriotism education more interactive and participatory, and can better stimulate children's emotional resonance and sense of identity. In the context of digital transformation, we should make full use of the advantages of digital technology and innovate the way of patriotism education to cultivate children's correct values and national consciousness.
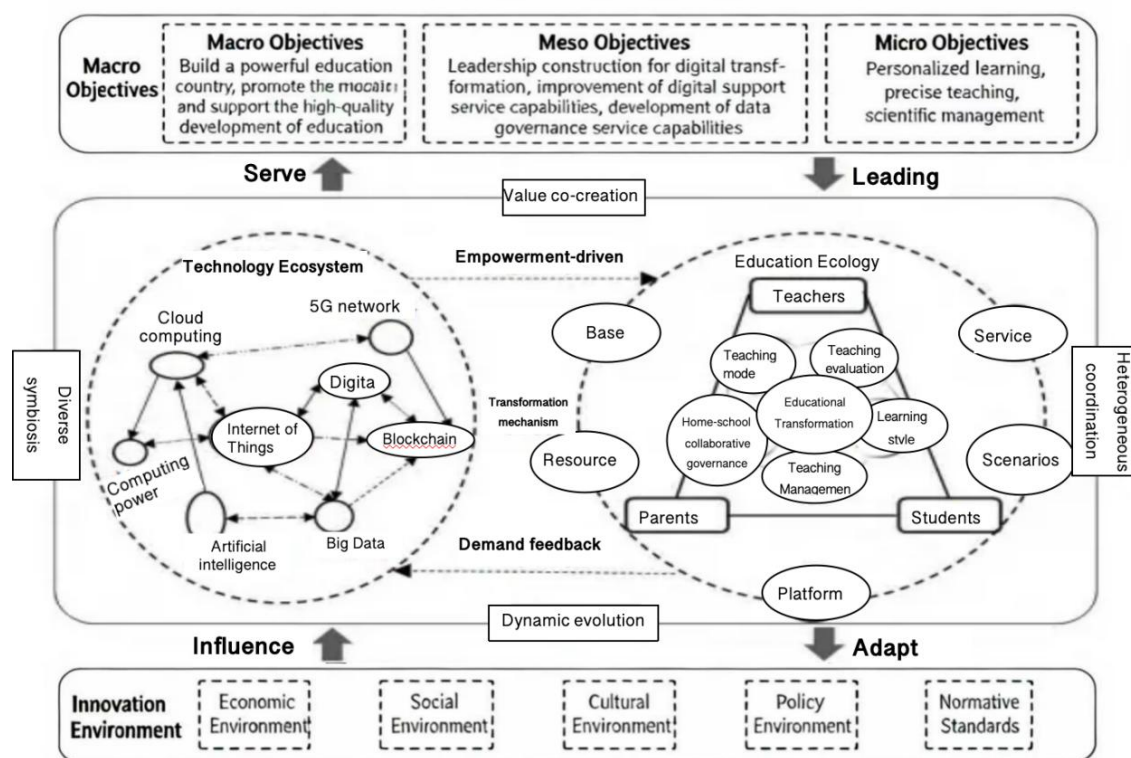
Figure 1: Technical framework for digital transformation in education

2.2 Enhanced Integration: The Interactivity of Digitalization in Early Childhood Patriotism Education

Digital transformation offers enhanced interactivity for patriotic education among border preschool children, allowing them to participate more actively through digital media and interactive platforms. Interactive games and virtual reality technology enable children to gain a deeper understanding of national history, culture, and values, strengthening their awareness and sense of national identity. Furthermore, digital transformation expands patriotic education beyond traditional classroom teaching, enabling wider dissemination and exchange through online interactions and social media, thus increasing its reach and impact. This enhanced interactivity stimulates children's interest and participation, fostering initiative and creativity in patriotic education.

2.3 The Scientific Nature of Digitalization in Early Childhood Patriotism Education

As the fourth technological revolution, represented by digital technology, continues to develop in depth, human society has entered the era of digital civilization. In the process of promoting the deep integration of technology and education, guided by policy and driven by information technologies such as the Internet and artificial intelligence, we emphasize the application and reform of education in the whole process of environmental construction, teaching, management, and resource optimization [6]. The level of digital education resource construction and application has gradually improved, but it still needs to be strengthened to meet the informatization needs of national education reform and development. First, the accumulation of children's love for their motherland is not solved by a theme or a one-way activity; it is a gradual and progressive process. Only when the experience reaches the

child's mind can it be a real accumulation of "social experience" [7]. Second, digital technology has brought a large amount of diverse educational resources to patriotic education, breaking through the limitations of traditional resources. Online smart courses have played a key role in innovating and improving the educational effect in patriotic education for children in border areas. By using multimedia resources, we can enrich educational content, break the limitations of time and space, increase learning opportunities, and promote the fair distribution of educational resources. Third, we should establish a scientific and modern educational evaluation mechanism and explore a comprehensive longitudinal evaluation of students' learning at all grade levels and a comprehensive horizontal evaluation of moral, intellectual, physical, aesthetic and labor education [8]. The application of modern information technologies such as artificial intelligence and big data, especially the deep integration of artificial intelligence and big data, has provided strong support for educational evaluation reform and is expected to play a vital role in educational evaluation reform.

3. The Educational Landscape of Patriotism Education for Border Children Empowered by Digital Technology

In his book "The Sense of Practice", Bourdieu proposed the concept of "principle of practice", which believes that the principle of practice is the deep generative principle hidden in practical activities, which integrates thought, perception and behavior into one, making practical activities possible [9] (Figure 2). In the digital transformation of patriotism education for young children, some important breakthroughs have been made at the level of the principle of practice. The deep generative principle includes "problem-driven + concept-led", "system evolution + innovation breakthrough" and "value assessment + iterative optimization".
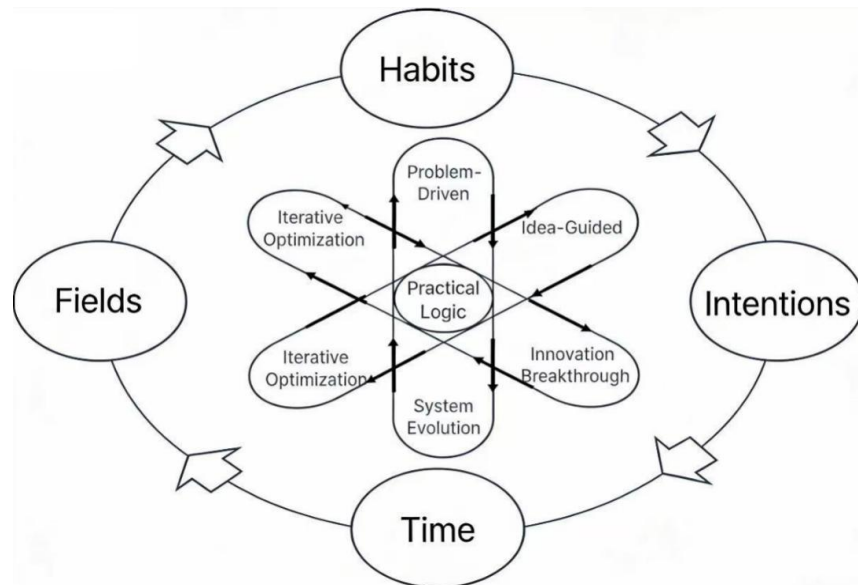
Figure 2: Practical Diagram

3.1 Multi-faceted Collaboration: Integration of Subjects in Patriotism Education for Border Children

Educators and practitioners should deeply understand the core principles of "problem-driven + concept-led", "system evolution + innovation breakthrough" and "value assessment + iterative optimization". Starting from practical problems, the process of educational practice is driven by solving real-world problems. First, as a future-oriented cause, education's technological philosophy should follow a futuristic orientation. High-quality resources are integrated through digital platforms to solve design, development and sharing problems. Second, as a complex ecosystem, education has close interdependence among its subsystems. In the practice of digital transformation of education, this dependence is reflected in the recursive interaction between subsystems [10]. The integration of intelligent technology and classroom teaching has given rise to intelligent education solutions, which in turn promotes the development of the concept of intelligent education. Finally, the value of practical activities is determined by value assessment in combination with the principles of "problem-driven + concept-led" and "system transformation + innovation breakthrough". Problems, concepts, system evolution and innovation breakthroughs are all dynamic processes. Problems should be continuously analyzed, external resources should be acquired, and the goal should be gradually approached through iterative optimization.

3.2 Practical Logic: Promoting Spatial Resonance in Early Childhood Patriotism Education

In the digital transformation of education, the principle of "problem-driven + concept-led" reflects a clear purpose, while the principle of "system evolution + innovative breakthrough" highlights the spirit of exploration. These two principles intertwine through the process of "value assessment + iterative optimization," making the digital transformation of education a result of the combined effect of multiple principles. Transformation practice is not a simple combination of single principles, but rather an organic integration of them. Environmental conditions often trigger transformation practice, while the practice process needs to be based on a certain intention. This intention can stem from objective real-world problems or advanced concepts; it can be a vague systemic vision or an innovative exploration. The practical logic of digital transformation in education is closely related to urgency, ambiguity, and strategy, which precisely aligns with Bourdieu's theory of practice. In summary, the practice of digital transformation in education is an organic integration of multiple principles and transformational characteristics; it is a dynamic, complex, and opportunity-filled process.

3.3 Model Shift: Ethical Symbiosis that Facilitates Patriotism Education for Preschool Children

Leveraging digital technology, we will guide the balanced digital development of patriotic education for preschool children nationwide, bridging the digital divide between regions and further realizing educational equity. The plan requires sustained effort and continuous development, adhering to a single blueprint, while also keeping pace with the times and continuously iterating and upgrading to adapt to the rapid development requirements of the digital age. Supporting measures should be released simultaneously or continuously regarding digital literacy, learning, and assessment to ensure effective policy implementation. Systematic planning and comprehensive consideration are needed, encompassing networks, computers, resources, curriculum, teaching materials, teaching methods, learning, assessment, management, and students, teachers, principals, and educational administrators. All elements of education will undergo digital transformation to achieve holistic education, encompassing all staff, the entire process, and all aspects of education.

4. Practical Approaches to Empowering Patriotism Education for Border Preschool Children with Digital Technology

Educational management tools are designed using technologies such as the Internet, big data, cloud computing, artificial intelligence, and blockchain. Embedded data is used to generate accompanying data, and scientific data models are

developed. Based on integrated data, "one-click triggering" enables tiered push and graded processing. Through data protocols, teacher teaching data, student learning data, school management data, and all data related to educational production are connected and integrated into a data system, transforming static data information into dynamic data development potential. In the process of talent cultivation, digital technology is applied to leverage the advantages of data integration, accurately grasp human development trends, and scientifically decide on development measures.

4.1 Building a Digital Intelligence Foundation to Unleash the Key Characteristics of Data

Data elements have economies of scale, are replicable and reusable, and have low "homogeneity" [11]. Only high-quality data can realize the value of data. We need to build a data resource system, improve data resource management and processing capabilities, promote compatibility and unification in various fields, break down technical and protocol barriers, achieve interconnection and interoperability, and release data dividends. First, we should accelerate the formulation of data element sharing and circulation systems to promote the circulation of data elements. Standardize data transaction management and improve data efficiency. Second, we should strengthen the supervision and protection of data security and create a safe and orderly circulation environment. Third, based on demand and use, we should establish diverse data development and use policies according to different data types. We should explore the value of data, promote the specialization and customization of data services, transform "data resources" into "data assets", and promote the integration of data with scenarios.

4.2 Transform Teaching Methods and Develop Digital Teaching Tools

Digital teaching tools are a form of "vehicle". With a good and effective "vehicle" [12], teachers can transport "goods" to the destination through the "road" to meet the needs of teaching. Develop digital teaching tools to integrate courses, textbooks, resources, pre-class, in-class, post-class, homework, exams, evaluations, etc. According to the characteristics of students and the teaching strengths of teachers, the teaching of resources on the platform is transformed from simply teaching the resources on the platform to teaching with the resources on the platform, meeting the needs of each teacher's personalized teaching and making technology-enabled teaching possible. Teachers are the "drivers" in the digital transformation of education. Such "drivers" select the appropriate "goods" according to the needs of students and use a good "vehicle" to transport the "goods" to students. The suitability of the "goods" and whether they can be delivered safely depend on the quality of the "driver".

4.3 Transform Learning Methods and Apply Digital Learning Tools

Digital learning tools are another kind of "vehicle" in the digital transformation of patriotic education for young children. Students use such "vehicles" [13]to transport the selected "goods" that meet their individual needs to their own warehouse to meet their learning needs. Students' own digital learning tools should be connected with teachers' digital teaching tools. Teachers' common and individual teaching requirements can reach students' digital learning tools. Students can use the digital learning tools that are easy to use and effective. According to the teacher's requirements or their own learning needs, students can change from simply learning the resources on the platform to learning with the resources on the platform.

5. Conclusion

In the era of digital transformation, patriotic education for preschool children in border areas faces new challenges and opportunities. What kind of patriotic education? For whom is it being taught? How should it be taught? These are common value pursuits for educators and practitioners at this stage. This study examines the value orientation and development trend of digital transformation in patriotic education for preschool children in border areas through two directions: value guidance and practical verification. The research finds that digital platforms can provide broader and deeper channels for the dissemination of patriotic education, while also better attracting and stimulating children's enthusiasm for participation. Therefore, in practice, it is necessary to strengthen the supervision of digital content and improve children's information literacy, in order to provide useful references for cultivating correct values and patriotic sentiments in children.

Acknowledgements

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