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The research on the Construction of Digital Teaching Resources in Kindergartens

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ABSTRACT
Digital teaching resources in kindergartens have become increasingly prevalent, yet significant challenges remain in their effective implementation and utilization. While resources are relatively abundant, teachers' capacity to leverage these tools effectively requires substantial improvement, and the development and application of digital teaching resources remain inadequate. This paper argues that comprehensive enhancement of kindergarten teachers' digital literacy is essential, alongside accelerated development and application of digital teaching resources, to promote high-quality and equitable development in preschool education.

KEYWORDS
Kindergarten; Digitalization; Teaching resources

1 Introduction

The rapid advancement of digital technology has fundamentally transformed the educational landscape, ushering in a new digital era for learning and instruction. As a foundational component of the education system, preschool education must adapt to and embrace this technological evolution. The National Outline of the Medium- and Long-Term Education Reform and Development Plan (2010-2020) explicitly emphasizes the construction of comprehensive network teaching resource systems, the establishment of open and flexible educational resource platforms, the promotion of widespread sharing of high-quality resources, and the provision of superior educational resources to teachers and students in rural and remote areas[1].

Digital teaching resources encompass a comprehensive collection of materials that exist in digital format and possess educational information and pedagogical value[2]. Within the preschool education context, these resources specifically refer to various digital materials that can be operated within multimedia network environments and utilized for kindergarten education and instruction[3]. The strategic construction of digital teaching resources in kindergartens offers multiple advantages, including enhanced resource sharing capabilities, increased engagement and interest in learning among children, improved comprehension and retention, reduced instructional burden on teachers, and elevated teaching innovation and educational quality.

Despite these potential benefits, the construction and application of digital teaching resources in kindergartens continues to face significant challenges. Primary concerns include insufficient digital literacy among teachers and inadequate development and utilization of available resources. These deficiencies necessitate the development of comprehensive improvement strategies to address existing gaps and maximize the potential of digital teaching resources in preschool education settings. Therefore, this paper aims to examine current challenges and propose targeted solutions to enhance the effective implementation of digital teaching resources in kindergartens.

2 The importance of digital teaching resource construction in kindergartens

2.1 Supporting comprehensive child development

Digital teaching resources facilitate the integration of information technology into children's play and learning activities, enabling the optimal combination of structured curriculum design and child-initiated activities. This integration enhances children's learning interest and capabilities while maximizing the educational value of the curriculum. The construction of digital resources in kindergartens must adhere to child development principles, ensuring that content aligns with children's learning needs and developmental patterns.

Through multimedia implementation, teaching content becomes more vivid and engaging, presented in authentic and diverse formats. Children's multi-sensory engagement in digital learning environments supports comprehensive physical and cognitive development. Teachers must strategically combine digital resources with children's lived experiences to optimize learning outcomes and fully realize the positive potential of digital resources in early childhood education.

2.2 Enhancing professional competency of preschool educators

The construction of digital teaching resources contributes significantly to improving teachers' professional capabilities and instructional effectiveness. Integration of digital technology into teaching practices enriches pedagogical methods, enhances classroom engagement and interactivity, elevates children's cognitive development, and enriches their emotional experiences. With access to comprehensive digital resource libraries, teachers can efficiently obtain and share high-quality instructional materials, gradually developing consistent practices of utilizing digital resources and continuously improving their digital pedagogical design capabilities.

Teachers leverage online platforms to share experiences and resources, creating collaborative networks that generate synergistic effects and improve overall teaching quality. This collaborative approach fosters professional development and ensures continuous improvement in digital teaching methodologies.

2.3 Promoting educational equity

Strengthening digital teaching resource construction in kindergartens serves as a catalyst for promoting educational equity. Through the integration and sharing of high-quality digital resources, the resource disparities between different regions and kindergartens can be substantially reduced. The establishment of comprehensive sharing platforms enables collaboration among distinguished kindergarten principals and key teachers to jointly develop high-quality preschool teaching resource libraries.

These platforms facilitate the open sharing of excellent daily activity arrangements, teaching cases, and demonstration classes through information technology systems. Teachers and students in rural and remote areas gain access to superior educational resources, reducing the impact of geographic disparities on educational quality and promoting equal opportunities and collaborative development in preschool education.

3 Current status of digital teaching resource construction in kindergartens

3.1 Insufficient teacher capacity for digital teaching resource utilization

The effective implementation of digital teaching resources in kindergartens faces significant challenges related to teacher preparedness and institutional support. The first critical issue involves inadequate awareness among educators. While many teachers utilize digital tools such as computers and interactive whiteboards in their instruction and recognize the value of information technology for young children's development, they have not yet established consistent practices for integrating digital resources into their regular teaching routines.

The second challenge concerns deficient digital competencies. Many educators lack proficiency in emerging information technology tools, including artificial intelligence applications and multimedia production software. These skill gaps frequently result in difficulties when developing and implementing digital teaching materials, ultimately compromising instructional effectiveness and student learning outcomes.

The third obstacle involves limited environmental support within educational institutions. Many kindergartens lack adequate information equipment and network infrastructure necessary to support comprehensive digital teaching initiatives. Furthermore, the absence of collaborative construction mechanisms between kindergartens and related organizations has restricted the integration and sharing of digital resources, diminishing teachers' motivation to utilize these tools and negatively impacting overall teaching results.

3.2 Inadequate development and utilization of digital teaching resources

The current landscape of digital education resources in kindergartens encompasses government-built sharing platforms, institution-developed resources, and third-party content providers. Teachers typically access materials through cloud storage systems and educational applications, while utilizing academic databases to locate appropriate teaching materials. However, the efficiency of digital resource utilization demonstrates significant variation across different kindergartens, with notable disparities in resource distribution among geographic regions.

Remote kindergartens face particular challenges in accessing sufficient high-quality digital resources, creating educational inequities that undermine the potential benefits of digital learning initiatives. When resources cannot be effectively integrated into teaching practices, their inherent advantages fail to translate into measurable educational outcomes. Additionally, the diverse living backgrounds of children necessitate that teachers screen and localize online resources to meet specific student needs, significantly increasing the complexity and workload of educators' responsibilities.

The current resource development process often lacks systematic coordination and quality assurance mechanisms, resulting in fragmented collections of materials that may not align with comprehensive educational objectives or developmental standards. This fragmentation further complicates teachers' efforts to create cohesive, developmentally

appropriate digital learning experiences for their students.

4 Strategies for the construction of digital teaching resources in kindergartens

4.1 Comprehensive enhancement of kindergarten teachers' digital literacy

Strengthening the digital literacy of educators represents the cornerstone of successful digital teaching resource construction in kindergartens. This enhancement requires multifaceted support across several critical dimensions. The first essential component involves intensified training practices that address practical skill development. Educational institutions must increase the scope and intensity of information technology training programs, enabling teachers to master essential competencies such as multimedia courseware production and children's programming through structured workshops and hands-on learning experiences. These training initiatives should provide authentic practice environments where teachers can apply newly acquired skills in realistic scenarios.

Training programs should be implemented at differentiated levels to accommodate varying teacher competencies, with comprehensive assessment protocols that evaluate educators' ability to effectively utilize digital tools in instructional contexts. These assessments must include timely feedback mechanisms and targeted improvement strategies to ensure continuous professional development. The second critical element involves fostering a comprehensive digital culture within educational institutions. This requires integrating digital technology into daily teaching management processes and encouraging teachers to routinely utilize digital platforms for lesson preparation, professional communication, and parent-school interactions.

Institutional leaders should leverage platform data to document and monitor teachers' technology usage patterns, creating a campus culture that actively promotes and rewards information technology integration. The third strategic component emphasizes progressive skill development through systematic evaluation and improvement processes. Regular assessments of teachers' digital literacy should inform the development of targeted improvement plans that address identified deficiencies while establishing clear developmental milestones and objectives.

The fourth essential strategy involves establishing collaborative resource development and sharing mechanisms. Kindergartens should implement formal protocols for co-construction and sharing of digital resources, creating regional resource libraries through multi-institutional partnerships. These collaborative efforts should aggregate high-quality lesson examples and instructional materials while ensuring broad accessibility and utilization. This approach not only reduces individual teachers' resource development burden but also promotes regional educational resource equity and balance.

4.2 Accelerated development and application of digital teaching resources

The inherent value of digital teaching resources depends on the simultaneous advancement of both development and application processes, requiring coordinated implementation strategies. Resource development must maintain a child-centered perspective that carefully considers the unique characteristics of children's digital learning environments and developmental requirements. Educational content creators should maximize multimedia capabilities by integrating text, images, audio, and video elements to produce digital teaching materials and interactive games that align with young children's cognitive characteristics and learning preferences.

Institutions must establish robust resource management mechanisms that ensure timely updates and facilitate publication and sharing through online platforms, promoting positive interaction while maintaining strict protocols for protecting children's personal information and privacy. The application dimension requires strategic utilization of digital technology to enhance classroom interaction and engagement, enabling children to participate in learning experiences through multiple sensory channels including auditory, visual, and tactile modalities.

Digital teaching content should maintain strong connections to children's lived experiences, effectively combining virtual and real-world elements while incorporating entertainment-based pedagogical approaches that facilitate knowledge comprehension and retention. Educational practitioners must remain attentive to individual differences among children, providing personalized digital learning experiences that accommodate diverse learning styles, developmental levels, and cultural backgrounds. This personalization requires sophisticated understanding of child development principles and the flexible application of digital tools to meet varying educational needs and objectives.

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References

[1] Ministry of Education. (2010, September 22). National outline of the medium- and long-term education reform and development plan (2010-2020). Retrieved from [URL].

[2] Yu S., & Wu J. (2009). Information technology and curriculum integration: Teaching models and methods in the network era. Shanghai Educational Publishing House.

[3] Sha X. (2019). Analysis of the construction of digital educational resources in preschool education under the background of "Internet+". Light Industry and Technology, 12, 87-88.