
Innovation and Practice in Educational Management Models within the Context of Digital Transformation

Haotian Zhu¹, Dr Zainudin Bin Mohd Isa²

¹City Graduate School, City University Malaysia, Jining Normal University, China, 413518084@qq.com

²City University Malaysia, Malaysia, zainudin.isa@city.edu.my

Abstract: *Educational management models are undergoing significant transformations in the context of digital transformation. Current educational management models face challenges such as uneven resource allocation and low management efficiency, while digital transformation brings innovative opportunities. The concept of educational management is updated, emphasizing student-centeredness, focusing on personalized development, and utilizing data-driven decision-making to improve the scientific nature of management. In terms of technology integration, the introduction of information management systems and intelligent technologies has improved management efficiency and supported educational and teaching innovation. At the same time, the organizational structure of educational management has also been adjusted, constructing a flat, flexible management system and strengthening inter-departmental collaboration. In practice, digital transformation has promoted the construction of educational management information platforms, the digitization and sharing of educational resources, and the reform of the educational evaluation system. However, it also faces challenges such as rapid technology updates, the time required for changes in management concepts, and obstacles to resource integration and sharing. In response, it is necessary to strengthen technology research and development, promote concept updates, and improve resource integration mechanisms.*

Keywords: *Digital Transformation; Educational Management Model; Concept Update; Technology Integration; Resource Sharing*

I. Introduction

Digital transformation, an inevitable outcome of rapid advancements in information technology, is profoundly impacting various sectors, including education. The widespread adoption of digital technologies is ushering in unprecedented opportunities for the evolution of educational administration. Currently, educational management models face multifaceted challenges, such as inequitable resource allocation and inefficient administrative processes, which impede improvements in educational quality and the realization of educational equity. However, digital transformation offers novel solutions to these issues. Data-driven approaches enable precise monitoring of educational resource distribution, facilitating optimized resource allocation. Furthermore, the application of intelligent technologies can significantly enhance administrative efficiency, leading to more scientific and effective educational management^[1]. Consequently, exploring innovations and practical applications in educational management models within the context of digital transformation is not only crucial for addressing current challenges but also represents a key pathway for modernizing educational administration and promoting educational equity and quality.

II. Innovations in Educational Management Models Under Digital Transformation

(1) Renewal of Educational Management Concepts

Amidst the wave of digital transformation, educational management concepts are undergoing profound changes. Traditional educational management models often prioritize administrators, emphasizing standardized norms while overlooking the individual differences and needs of students. However, in the context of digital transformation, an educational philosophy that emphasizes student-centeredness and personalized development is gradually emerging. This concept posits that each student is a unique individual with distinct interests, potential, and learning styles. Consequently, educational administration should be student-centered, providing diverse educational resources and learning pathways to promote students' holistic development. Concurrently, data-driven decision-making has become a crucial method for enhancing the scientific nature of management^[2]. By collecting and analyzing student learning data, administrators can more accurately understand students' learning status and needs, thereby formulating more precise and effective educational strategies.

(2) Integration of Educational Management Technologies

Digital transformation provides a broad scope for the integration of educational management technologies. The introduction of information management systems has significantly improved management efficiency. These systems can automate the processing of large amounts of educational data, such as student information, course schedules, and performance statistics, enabling administrators to grasp the operational status of the school more conveniently and efficiently. Simultaneously, the application of intelligent technologies also provides infinite possibilities for educational and teaching innovation. For instance, through artificial intelligence-assisted teaching, personalized learning resources and tutoring can be provided based on students' learning situations and needs; through big data analysis, students' learning potential and interests can be explored, providing strong support for teachers' teaching. The application of these technologies not only improves the quality of education and teaching but also enhances students' learning experience and satisfaction.

(3) Educational Management Organizational Structure Adjustment

Digital transformation has also driven adjustments to the organizational structure of educational management. Traditional educational management structures are often characterized by multiple layers, hindering effective information flow and making it difficult to adapt to the rapidly changing educational environment. Consequently, the establishment of a more flattened and flexible management system has become an inevitable trend. This management system can reduce decision-making levels, accelerate information transmission, and improve management efficiency. Concurrently, strengthening inter-departmental collaboration is a crucial direction for digital transformation. By breaking down departmental barriers and promoting information sharing and exchange, a synergistic effect can be created to collectively address challenges and issues in educational management^[3]. This collaborative approach not only helps improve work efficiency but also enhances the integrity and systematic nature of educational management, providing strong support for the sustainable development of the institution.

III. Implementation of Digital Transformation in Educational Management Models

(1) Construction of an Educational Management Information System Platform

Driven by the impetus of digital transformation, the construction of an educational management information system platform has become a crucial approach to elevate the standards of educational administration. This platform integrates diverse educational resources, including but not limited to curricula, learning materials, and faculty information, thereby providing a comprehensive, one-stop service for both educators and students. By simply

logging into the platform, users can readily access the required resources, significantly enhancing the convenience and efficiency of resource acquisition. Furthermore, the information system platform facilitates the digitalization of management processes. Traditional educational management often relies on manual operations, which are characterized by cumbersome procedures and a propensity for errors. In contrast, digital management processes utilize system automation, substantially streamlining workflows and improving operational efficiency. Administrators can leverage the platform to monitor school operations in real-time, enabling timely decision-making and ensuring the scientific rigor and effectiveness of educational management.

(2) Digitalization and Sharing of Educational Resources

Digital transformation also fosters the digitalization and sharing of educational resources. Through the establishment of a digital educational resource repository, institutions can digitize various teaching resources, thereby creating a rich array of digital instructional content. These resources encompass not only conventional static formats such as text and images but also multimedia resources like videos and audio, offering educators and students a more diverse range of learning modalities. Concurrently, the sharing of digital educational resources promotes the realization of educational equity. Students in remote areas can access high-quality educational resources via online platforms, thereby narrowing the educational disparity between urban and rural areas^[4]. This resource-sharing model not only enhances the utilization rate of educational resources but also contributes to the balanced development of the educational enterprise.

(3) Reform of the Educational Evaluation System

Digital transformation also provides robust support for reforming the educational evaluation system. Traditional educational evaluations often rely on paper-based examinations and manual scoring, resulting in a singular evaluation method with a degree of subjectivity. However, the utilization of data technology enables the diversification of evaluations. By collecting student learning data, such as assignment completion, classroom performance, and examination results, the system can automatically generate comprehensive student evaluation reports, providing a more holistic and objective reflection of student learning. Simultaneously, strengthening evaluation feedback is a crucial component of digital transformation. The system can furnish teachers with targeted teaching recommendations based on student evaluation reports, thereby promoting continuous improvement in teaching practices. This data-driven evaluation approach not only enhances the accuracy and objectivity of evaluations but also stimulates teachers' enthusiasm for teaching and their innovative spirit, thereby elevating the quality of education and teaching.

IV. Challenges and Countermeasures for Innovation in Educational Management Models under the Context of Digital Transformation

(1) Challenges Faced

In the wave of digital transformation, educational management models are undergoing unprecedented changes, concurrently facing numerous challenges.

Rapid technological advancements constitute the primary challenge. Digital technologies are evolving at an accelerated pace, necessitating that the field of educational management keeps abreast of technological developments, continuously introducing new technologies to enhance management efficiency and quality. However, the rapid update of technology implies the need for sustained investment of substantial financial and human resources for research and development. Furthermore, it requires continuous application training for educational administrators to ensure their proficiency in mastering new technologies and applying them to practical management scenarios.

The transition in management paradigms presents a significant challenge. Digital transformation necessitates not only technological upgrades but also a shift in management philosophies. Traditional management approaches often emphasize empiricism and hierarchical control, whereas digital transformation prioritizes data-driven decision-making, agility, and innovation. This transition requires time and the education of administrators to adapt to and embrace new management concepts, thereby fostering a mindset conducive to digital transformation in educational administration.

Furthermore, the obstacles to resource integration and sharing cannot be overlooked. Digital transformation offers opportunities for the integration and sharing of educational resources; however, in practice, this is often hindered by information barriers, conflicts of interest, and other factors. This leads to resource wastage and redundant development, thereby impeding innovation and development in educational management models.

(2) Mitigation Strategies

To address the challenges of innovation in educational management models within the context of digital transformation, a series of effective measures must be implemented.

Strengthening technology research and development, along with application training, is crucial for addressing the challenge of rapid technological advancements. Educational management institutions should increase investment in technology research and development, establishing specialized research teams responsible for monitoring the latest technological trends and developing new technologies that meet the needs of educational management. Concurrently, application training should be enhanced to improve the technological literacy and application capabilities of educational administrators, enabling them to proficiently master and apply new technologies in educational management^[5].

Addressing the temporal challenges inherent in the evolution of management paradigms necessitates the promotion and dissemination of updated management philosophies. Educational administrative bodies should facilitate this through seminars and workshops, emphasizing the significance and exigency of digital transformation, thereby encouraging educational administrators to embrace novel management approaches. Concurrently, the establishment of incentive mechanisms is crucial to stimulate active participation in the practical application and exploration of digital transformation, fostering a conducive administrative environment.

To overcome the obstacles associated with resource integration and sharing, the enhancement of mechanisms for resource consolidation and dissemination is essential. Educational administrative entities should establish a unified platform for resource integration and sharing, dismantling informational barriers to optimize the allocation and utilization of educational resources. Furthermore, the formulation of pertinent policies and regulations is imperative to delineate the principles and requirements for resource integration and sharing, safeguarding the legitimate rights and equitable distribution of benefits among all stakeholders. The implementation of these measures will facilitate the integration and sharing of educational resources, thereby promoting innovation in educational management models.

V. Conclusion and Future Prospects

Digital transformation has instigated profound innovation and practical application within educational administration models. Through the renewal of concepts, technological integration, and organizational restructuring, educational management is progressively advancing towards scientific rigor, enhanced efficiency, and personalization. The establishment of information platforms, the digitization and sharing of educational resources, and the reform of evaluation systems have significantly elevated the standards and efficacy of educational management, thereby fostering educational equity and quality improvement. Nevertheless, digital transformation also presents challenges, including rapid technological advancements, the time required for the adaptation of management philosophies, and obstacles in resource integration and sharing. To address these challenges, educational management institutions must intensify technology research and development, alongside application training, promote the updating and dissemination of management concepts, and refine mechanisms for resource integration and sharing.

Looking ahead, as digital technologies continue to evolve, educational management models will further deepen their innovation and practical implementation. Data-driven management decisions will become more precise and effective, with intelligent technologies increasingly integrated into the educational and teaching processes. Furthermore, flattened, flexible management systems will become the norm. Simultaneously, the integration and

sharing of educational resources will become more seamless, and educational evaluation systems will become more diverse and objective. Digital transformation will continuously drive the modernization of educational management models, injecting new vitality into the sustained development of the educational enterprise.

References

[1] Zheng, S., & Xu, T. (2025). Analysis of teaching management measures in higher vocational education driven by digital transformation. *Shanxi Youth*, (02), 51-53.

[2] Wang, A. (2024). Promoting digital transformation and constructing a new ecosystem of higher education management in the digital age. *Journal of China Multimedia and Network Teaching (Mid-Month)*, (11), 140-143.

[3] Liu, Y., & Xu, F. (2024). Research on digital transformation and construction of student education management in the new era. *Life and Partner*, (19), 9-11.

[4] Hu, G. (2023). Low-code empowers digital transformation of primary and secondary education. *China Information Technology Education*, (17), 87-89.

[5] Zhao, Z., & Zhang, H. (2021). Digital transformation: New trends in the reform of education management in higher vocational colleges—An empirical study based on online surveys of teachers and students in higher vocational colleges. *Journal of Jinan Vocational College*, (05), 5-7+14.