Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/19100
DOI URL: http://dx.doi.org/10.21474/IJAR01/19100

RESEARCH ARTICLE

"RESEARCH ON CURRENT DIGITAL TRANSFORMATION STRATEGIES IN HIGHER VOCATIONAL COLLEGES"

Wu Kewen and Ruel Reyes (Adviser)
Angeles University Foundation.

Manuscript Info

Manuscript History
Received: 19 May 2024
Final Accepted: 24 June 2024
Published: July 2024

Key words:-
Digital Transformation, Digital Literacy, Digital Governance

Abstract

This article explores the connotation, effectiveness, challenges and response strategies of digital transformation in higher vocational colleges in the context of the current digital era. First, the impact of digital transformation on education and teaching methods, management models and talent training concepts is analyzed, and the importance and necessity of digital transformation are emphasized. Secondly, it summarizes the achievements of digital transformation in improving teaching quality, enriching teaching resources, and improving management efficiency. Then, the challenges faced by digital transformation such as campus infrastructure, student literacy, teacher capabilities, and teaching model innovation were pointed out, and strategies such as strengthening infrastructure construction, cultivating students' digital literacy, and improving teachers' digital teaching capabilities were proposed. Finally, it emphasized the importance of building a digital support system, establishing a service evaluation system and a data-driven governance system, and called on all parties to work together to promote the in-depth development of digital transformation and make more efforts to cultivate high-quality application talents and promote social and economic development. Great contribution.

Introduction:-

The report of the 20th CPC National Congress clearly pointed out that we should promote the digitalization of education and build a learning society and a learning country with lifelong learning for all people. At the World Digital Education Conference, HuaiJinpeng, Minister of Education of China, proposed to deepen the implementation of the strategic action of digitalization of education, promote the digitalization of resources, intelligent management, personalized growth, and socialized learning in an integrated manner, so that high-quality resources can be replicated, disseminated, and shared, and large-scale personalized education can become possible. As an important base for cultivating skilled talents , how can higher vocational colleges promote the digitalization of education, promote lifelong learning for all people, and implement digital strategies to achieve large-scale personalized education? That is to fully implement digital transformation. This is the historical mission given to vocational colleges in the new era, and it is also the inevitable choice for vocational education to actively implement national strategies and serve the digital transformation of the economy and society.

Corresponding Author:- Wu Kewen
Address:- Angeles University Foundation.

The connotation of digital transformation of higher vocational colleges

The digital transformation of higher vocational colleges refers to the deep integration of information technology and education and teaching in the context of the current digital era to achieve comprehensive changes and upgrades in education and teaching methods, management models, talent training concepts, etc., so as to adapt to the needs of social and economic development , the process of improving the quality and effectiveness of talent training. The key to digital transformation lies in how toorganically combine new technologies with educational practices to improve the quality of education, meet social needs, and cultivate high-quality talents suitable for future development.

(1) The digital transformation of higher vocational colleges includes the innovation and upgrading of education and teaching methods. The traditional classroom teaching model is gradually transforming into digital and online directions. With the help of technological means such as the Internet, intelligent equipment, and virtual reality, global access to learning resources and personalized customization of online courses have been achieved. In the process of digital transformation, teachers will pay more attention to cultivating students' independent learning abilities and improve students' learning interest and initiative through diversified teaching methods and personalized learning paths.

(2) Digital transformation involves the innovation and optimization of management models. Vocational colleges have achieved intelligent and refined school management by establishing information management tools such as digital educational management systems and student information management platforms. Administrators can use big data analysis, artificial intelligence and other technical means to better understand students' learning status and needs, adjust teaching plans and management strategies in a timely manner, and improve the efficiency and level of educational management.

(3) Digital transformation means the updating and improvement of talent training concepts. Vocational colleges must adapt to the development needs of the digital economy and society and cultivate application-oriented talents that adapt to the requirements of the digital era. This requires education and teaching content and methods to keep pace with the development of digital technology, focus on the cultivation of students' practical abilities and innovative thinking, cultivate students' ability to acquire, process and apply information, and improve students' comprehensive quality and competitiveness.

Analysis of the effectiveness of digital transformation in higher vocational colleges

Under the guidance and promotion of various forces of the country and society, the digital development of higher vocational colleges has achieved remarkable results. The quality of teaching has been continuously improved, students' sense of learning experience has been continuously enhanced, the talent training model has been continuously innovated, and the awareness of serving the society has been improved. It can be seen that digital transformation has become the most important way for higher vocational colleges to improve their competitiveness and realize social value.

(1) Continuous innovation in education and teaching models. Taking traditional classroom teaching as an example, the traditional teaching model is limited by factors such as time and space. Students' participation is not high, and it is difficult for teachers to provide timely and effective teaching feedback. Through digital transformation, schools can use online teaching platforms and multimedia technologies to record and publish classroom content online. Students can study anytime and anywhere according to their own learning progress, which greatly improves the autonomy and flexibility of learning. At the same time, teachers can monitor and evaluate students' learning status in real time through online platforms, adjust teaching strategies in a timely manner, and improve the pertinence and effectiveness of teaching.

(2) The construction of digital teaching resources has achieved remarkable results. Under the traditional teaching model, the development and sharing of teaching resources are subject to many restrictions, making it difficult for teachers to share and exchange resources. Through digital transformation, schools can establish a unified teaching resource platform, and teachers can upload high-quality teaching resources developed by themselves to the platform for sharing, realizing resource sharing and development. This can not only improve the utilization efficiency of teaching resources, but also promote communication and cooperation between teachers and promote the continuous improvement of teaching level.

(3) Digital management and service levels are gradually improved. Traditional school management methods have problems such as information asymmetry and low efficiency. Through digital transformation, schools can establish a comprehensive information management system to achieve centralized management and unified deployment of information on students, teachers, teaching resources, etc. . Through these information management systems, schools can understand the needs of students and teachers in a timely manner, provide them with personalized services, and improve the accuracy and efficiency of management.

Challenges of digital transformation in higher vocational colleges

In the current era of rapid and vigorous development of the digital economy, the digital transformation of higher vocational colleges has become an important part of promoting social and economic growth. However, the development of anything is not smooth sailing, and the success of any change cannot be achieved overnight. There are still many challenges in the actual process of digital transformation in higher vocational colleges.

(1) The basic conditions for campus digitalization still need to be improved

In the early stages of digital transformation, many higher vocational colleges face problems such as insufficient digital infrastructure and narrow network bandwidth. For example, when a certain higher vocational college implements online teaching, due to unstable network signals, the teaching video often freezes and students are unable to participate in discussions smoothly. Therefore, in order to achieve digital transformation, we first need to increase investment in the construction of campus digital infrastructure, improve network bandwidth and stability, and provide reliable technical support for teaching and learning.

(2) Students' digital literacy needs to be improved

Although most students today have certain digital skills, in practical applications, many students still lack the ability to use and apply digital tools. For example, when some students use online learning platforms, they are not proficient in operations such as submitting assignments and downloading course materials, which affects the learning effect. Therefore, higher vocational colleges need to strengthen the cultivation of students' digital literacy and improve students' digital skills by offering relevant courses, holding training activities, etc., so that they can better adapt to the digital learning environment.

(3) The construction of teaching resources to support digital teaching and learning needs to be strengthened

Digital teaching and learning requires the support of a large amount of high-quality teaching resources, including digital textbooks, online courseware, multimedia teaching materials, etc. However, many higher vocational colleges still have deficiencies in the construction of teaching resources. For example, although some colleges and universities have built online teaching platforms, the quality of teaching resources on the platforms is uneven and lacks pertinence and practicality. Therefore, it is necessary to strengthen the development and integration of digital teaching resources, improve the quality and effectiveness of resources, and provide better support for digital teaching.

(4) Teachers' digital teaching capabilities need to be improved

Teachers are the key promoters of digital teaching and learning, and their digital teaching capabilities directly affect teaching effectiveness and student learning experience. However, many teachers in higher vocational colleges currently have insufficient abilities in digital teaching. For example, some teachers lack systematic training and guidance on the use of digital teaching tools and instructional design, resulting in poor teaching results. Therefore, it is necessary to strengthen the cultivation of teachers' digital teaching capabilities, improve teachers' digital teaching level by holding training courses, organizing exchanges and seminars, and stimulate their vitality in teaching innovation.

(5) The teaching model of higher vocational education driven by digital transformation lacks innovation

Digital transformation is not just about moving traditional teaching models online, but more importantly, using digital technology to innovate teaching models to improve teaching effects and student learning experience. However, many higher vocational colleges currently face the problem of insufficient innovation in teaching models in the process of digital transformation . For example, although some colleges and universities have implemented online teaching, the teaching content and methods still continue the traditional lecture-based teaching model, which lacks interactivity and interest. Therefore, it is necessary to strengthen the exploration and innovation of digital teaching models, combine industry needs and student characteristics, design a more suitable teaching model, and improve teaching effects and learning motivation.

(6) The digital campus governance system needs to be improved urgently

Digital transformation is not only the transformation of teaching and learning, but also involves all aspects of campus management, services, and decision-making. However, many higher vocational colleges currently have deficiencies in the construction of digital campus governance systems. For example, although some colleges and universities have built student information management systems and teaching management platforms, there are many problems in the integration and application of the systems, resulting in low management efficiency. Therefore, it is necessary to strengthen the construction of a digital campus governance system, integrate various management systems, improve the efficiency of information sharing and utilization, and achieve refined and intelligent campus management.

(7) Data security and privacy protection are still insufficient

With the deepening of digital transformation, the scale and value of school data continue to increase, but the corresponding awareness of data security and privacy protection is still relatively weak. For example, when some higher vocational colleges build online teaching platforms, the protection measures for teachers and students' personal information are not perfect enough, and there is a risk of information leakage. Therefore, it is necessary to pay more attention to data security and privacy protection, establish a complete data security management system, strengthen data encryption and permission management, and ensure that the data security and privacy of students and teachers are not violated.

Strategies for digital transformation in higher vocational colleges

How to deal with the challenges that constantly arise in the process of digital transformation is a major issue that higher vocational colleges across the country need to think about and solve. At the same time, we should also fully realize that challenges and opportunities often coexist. Vocational colleges can continue to explore and innovate to adapt to the digital era by strengthening infrastructure construction, cultivating the digital literacy of students and teachers, reforming teaching models, building digital support systems, establishing service and evaluation systems, and data governance systems .requirements to cultivate more high-quality technical and technical talents for the society.

(1) Strengthening the construction of digital infrastructure

Digital infrastructure is an important foundation for supporting digital teaching and learning, and its construction level directly affects the teaching effect and learning experience. Therefore, higher vocational colleges need to increase investment in digital infrastructure construction, increase network bandwidth and stability, improve campus network coverage, and ensure the smooth progress of teaching, learning, and management. For example, a certain higher vocational college has comprehensively upgraded its campus network in recent years. By adding network equipment, expanding bandwidth and other measures, it has effectively improved the stability and speed of the network and provided reliable technical support for digital teaching and learning.

(2) Cultivating students' digital literacy

Students' digital literacy is their key ability to adapt to the digital teaching and learning environment, and directly affects their learning results and future employment competitiveness. Therefore, higher vocational colleges need to strengthen the cultivation of students' digital literacy and improve their digital skills and application capabilities. For example, a certain higher vocational college offers a "digital literacy education" course to guide students to master the basic use of digital tools, cultivate their information retrieval, data analysis and innovation capabilities, and improve their competitiveness in the digital era.

(3) Improve teachers' digital teaching capabilities

Teachers are the key promoters of digital teaching and learning, and their digital teaching capabilities directly affect the quality and effectiveness of teaching. Therefore, higher vocational colleges need to strengthen the improvement of teachers' digital teaching capabilities and improve their application level of digital teaching concepts and methods. For example, a higher vocational college held activities such as "Digital Teaching Methods and Technology Training" to guide teachers to understand the application methods of digital teaching tools, explore innovations in digital teaching models, and improve their digital teaching levels.

(4) Strengthen the construction of digital teaching resources

High-quality teaching resources are an important guarantee for supporting digital teaching and learning. Their construction and application level directly affect the teaching effect and learning experience. Therefore, higher

vocational colleges need to strengthen the construction and integration of digital teaching resources to improve the quality and effectiveness of resources. For example, a higher vocational college has built a "digital teaching resource library" to integrate rich digital teaching resources, including online courseware, teaching videos, virtual experiments, etc., providing rich support for teaching and learning.

(5) Explore the reform of teaching model based on digitalization

Digital transformation is not just about moving traditional teaching models online, but more importantly, using digital technology to innovate teaching models to improve teaching effects and student learning experience. Therefore, higher vocational colleges need to actively explore the reform of teaching models based on digitalization, and design more suitable teaching models based on industry needs and student characteristics. For example, a certain higher vocational college launched a "blended teaching" pilot to combine online learning with offline practice to give full play to the advantages of digital teaching and improve teaching effectiveness and learning motivation.

(6) Build a digital support system for industry, academia and research

The integration of industry, academia and research is an important direction for the digital transformation of higher vocational colleges, which can effectively improve the quality of teaching and the employment competitiveness of students. Therefore, higher vocational colleges need to build a digital support system for industry, academia, and research to promote the deep integration of teaching, scientific research, and industry. For example, a certain higher vocational college cooperates with enterprises to carry out "industry-oriented projects" to closely integrate students' practical training projects with the needs of enterprises to improve students' practical abilities and employment competitiveness.

(7) Establishing a digital education service and evaluation system

Digital education services and evaluation systems are an important support for the digital transformation of higher vocational colleges and can provide all-round support and guarantee for teaching and learning. Therefore, higher vocational colleges need to establish a sound digital education service and evaluation system, including online learning platforms, learning resource libraries, learning management systems, etc., to provide convenience and support for teaching and learning. For example, a certain higher vocational college has improved teaching efficiency and learning experience by building a "digital learning platform" to provide teachers and students with integrated services such as online learning, course management, and homework submission.

(8) Build a data-driven vocational education governance system

The data-driven vocational education governance system is an important guarantee for the digital transformation of higher vocational colleges and can provide scientific basis and data support for decision-making. Therefore, higher vocational colleges need to build a data-driven vocational education governance system and strengthen the monitoring and evaluation of educational processes and effects. For example, a higher vocational college built a "data analysis and decision support system" to conduct real-time monitoring and evaluation of student learning and teacher teaching effectiveness, providing a scientific basis for school management and decision-making.

The future of vocational education lies in digital transformation. No matter who you are, no matter where you are in vocational education, you must quickly adapt to the discomfort in the process of digital transformation. Only by strengthening collaboration and cooperation in all aspects can we jointly promote the in-depth development of digital transformation. It can achieve the sustainable development of digital transformation in higher vocational colleges and the realization of long-term goals, and make greater contributions to cultivating more high-quality application-oriented talents and promoting social and economic development.

References:-

[1] Wei Wei. (2024). The value, dilemma and optimization path of digital transformation of higher vocational education in the context of the new era. Continuing Education Research (05), 48-51.
[2] Li Zhi. (2024). Research on the development of digital transformation of higher vocational colleges in Hubei Province based on data analysis. Journal of Wuhan Metallurgical Management Cadre College (01), 83-87.
[3] Wang Hengping. (2024). Digital transformation of Jiangsu higher vocational education: realistic foundation, development constraints and optimization paths. Vocational and Technical Education (06), 57-61.
[4] Zhu Xiaojuan. (2024). Research on the path of digital transformation of Changzhou vocational education under the background of digital economy. Investment and Cooperation (01), 202-204.

[5] Li Jianying& Yang Yong. (2024). Analysis of professional optimization paths in higher vocational colleges under the background of digital transformation. Journal of Beijing Industrial Vocational and Technical College (01), 56-59.
[6] XueJingyun& Zhang Yinhuan. (2024). Research on the reform and innovation of teaching models in higher vocational colleges under the background of digital transformation. Office Automation (01), 40-42+20.
[7] Shen Ling & Zheng Qiang. (2023). Research on the development of digital transformation of Hubei Vocational Education. Journal of Hubei Industrial Vocational and Technical College (06), 1-5.
[8] Zheng Chengdong&TengYanyang. Preliminary exploration of digital transformation of education in higher vocational colleges - taking Qingdao Hotel Management Vocational and Technical College as an example. China Educational Technology Equipment 1-4.
[9] Li Ning & Cui Bo. (2023). Research on the digital transformation path of higher vocational colleges. Journal of Liaoning Higher Vocational College (10), 14-16+52.