ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

Evaluation Strategy for AI and Big Data-Driven Digital Transformation in Education

Yuanyuan Zheng

School of International Culture and Communication, Jingdezhen Ceramic University, Jingdezhen, Jiangxi, China
275737051@qq.com

Abstract: *With the development and application of various new data technologies, the use of digital to promote change and innovation in all walks of life has become a global theme. In particular, for the education sector, the digital transformation of education is an inevitable choice for education to integrate into the changes of the times and the sustainable development of reality. At the same time, the use of network security solutions is very important for the digital transformation of education, which can help the learning campus network to resist different types of internal and external cyber attacks. After use, it is more than 95% accurate against cyber attacks, which is much higher than before it was not used. This paper used big data and artificial intelligence to realize the evaluation strategy of digital transformation of education. It was found that after the transformation of education, its effectiveness in learning assessment methods and digital competency development has been significantly improved. Compared with the traditional education model, these two aspects were scored higher, with a score of 4.45 or more and 4.35 points or more, respectively. While changing the single evaluation method, it can also better develop the digital competence of students and teachers, and improve the professional competence of teachers. Therefore, the research content of this paper is of great significance to promote the practice of digital transformation of education.*

Keywords: *Digital Transformation of Education, Evaluation Strategy, Artificial Intelligence, Network Security Solutions*

1. Introduction

The trend of global economic integration has promoted the change and transformation of economic structure, and the strategic game of strengthening the country has aggravated the social development change and the in-depth change of the education system. With the development of contemporary information technologies such as mobile Internet, cloud computing and data statistical analysis, the era of big data has arrived [1]. Data is the core energy source in the new era, and has become one of the main factors promoting innovation and change in the education system. At this stage, a variety of modern information technology is closely integrated with education classroom teaching, and the digitalization of education has become an important focus of attention in the political and educational circles. At the same time, the digital transformation of education has increasingly become the core element of the high-tech industry, which is expected to increase the increase of educational opportunities , thereby improving the efficiency and quality of education [2-3]. In order to cope with the opportunities and challenges brought by digital technology, a series of digital development strategy plans have been issued around the world to promote the digital transformation of education in multiple aspects. Digitalization is one of the problems in the sustainable development of education reform at this stage. There is no doubt that the digitalization of education has become the focus and trend of international education reform and innovation. When it comes to the digitalization of education, it is inevitable to pay attention to the internal innovation and transformation of education system software driven by digital technology. However, the exponential rate of change in big data and artificial intelligence technology has exceeded the adaptability of social development. Therefore, the concept of digital transformation of education came into being. With the help of this research method, this paper evaluated the benefits of digital transformation in education. The digital transformation of education is actually a process of all-round and all-round independent innovation and change, which is not only related to the quality of talent training, but also related to the digital transformation and development of society and the core competitiveness of the country.

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

The transformation of education is an issue that the education community has been focusing on. In order to adapt to the digital era, how to help education achieve digital transformation and cultivate talents with digital capabilities has increasingly become the research topic of many experts and scholars, and this aspect has been deeply explored. Rospigliosi Pericles asher saw digital transformation as an inevitable process in the higher education system. The university's performance on digital transformation is mainly reflected in the diversity and flexibility of learning technologies, especially educational topics and distance open learning. It has been observed that universities have the fewest digital transformation strategies in terms of social service tasks [4]. By assessing the extent to which institutional ecosystems were involved in universities' digital transformation, Bygstad Bendik provided a context for universities to adopt technologies to understand digitalization. It was found that technological change has had a broad and profound impact on higher education institutions, especially in terms of values and operations [5]. Balyer Aydin believed that changing information and communication technologies have impacted and even changed many things in the digital age. Through phenomenological research design as a qualitative method, the program and management process of the digital transformation of education in academia were determined. In the process of digital transformation, managers must first create a vision and generate an effective learning environment based on it [6]. Bond Melissa believed that the digitalization of higher education institutions is a top concern for many education stakeholders. Therefore, he proposed different policies, initiatives and strategic measures to solve the problem of educational technology innovation in higher education. At the same time, in order to support the use of educational technology for teaching purposes, it was recommended that higher education institutions use artificial intelligence technology [7]. Few researchers have considered the use of big data and artificial intelligence for the digital transformation of education as a way to conduct evaluation strategy research. Therefore, this paper is meaningful to the research on the evaluation strategy of education digital transformation of education big data and artificial intelligence.

Research on big data is widely used in educational transformation. Digitalization allows education to be transformative. Its research popularity has always been very high, and related research reports are also endless. Francisco J proposed a strategy for an up-to-date review of artificial intelligence (AI) in education, which aimed to equip students with the competencies and skills needed for current and future digital transformation. Its goal was to support higher education institutions in establishing curricula that enable a blended teaching approach based on learning, physical and virtual practices [8]. Jaiswal Akansha believed that the application of artificial intelligence (AI) in developing new teaching solutions is driving change in the education system. By using grounded theory, he found that personalized learning, recommendation systems, and adaptive assessments are helping students and teachers develop better. Schools have also begun to shift from traditional teaching methods to intelligent education in order to enhance the learning experience of students [9]. Mkrttchian Vardan believed that in order to meet the needs of digital transformation, universities must continue to play their role as places of education and innovation. Based on the role of big data analysis in improving the educational process, he found new ways to make educational resources better combined with and Internet of Things technologies [10]. Among these research scholars, all of them are big data and artificial intelligence on education transformation, and there is a lack of research on education digital transformation.

Artificial intelligence technology, blockchain technology, and big data and other digital technologies have long penetrated into our daily life, and information management and intelligent systems have slowly developed into the mainstream methods of human activities and practices in modern society. It is believed that in the near future, education would also undergo a digital transformation reform. In fact, the transformation has come. When rethinking the digital transformation of education on the new journey of building a digital China, it can be found that although it contains many opportunities, there are still some problems. This paper used artificial intelligence to realize the digital transformation of education and help better improve the quality of education, so as to try to solve these existing problems.

2. Educational Digital Transformation and Big Data Related Theories

2.1 Connotation of Digital Transformation in Education

In recent years, digital transformation has been mentioned more and more frequently, but there is no consensus on its definition so far. Some experts and scholars regard the development of digital

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

transformation as a development strategy or a way [11]. The first is to define digital transformation as the digital way of using digital devices to communicate, record and transmit data. For this reason, digital transformation is seen as a strategy or a method. Later, it is felt that digitalization was a change in the paradigm of communication and interaction between people and the world. In this perception, digital transformation is seen as a process or a model. It can be seen that the key to the development of digital transformation lies in the promotion of technology, whether it is digital solutions and procedures, or paradigm changes. Therefore, as a technology-based method, "digitalization" has been constantly changing with the development of data technology, and has undergone a transformation of various digital concepts [12-13]. Education is a social phenomenon of educating people, and it is an important way to pass on industry experience and social experience. The meaning of education can be divided into narrow and broad senses. Education in a broad sense means that all kinds of activities that can improve everyone's knowledge and skills and build people's ideological and moral level belong to education. Education in a narrow sense usually only refers to school education, that is, educators have a planned and purposeful influence on the mind and body of the educated in accordance with the needs of certain social development. In turn, these affected students would be transformed into people needed for certain social development. May also lead to the formation of a new round of rigid needs and external reasons, thus forming the driving force for the digital transformation of education and promoting the development of digital transformation of education. The model of influencing factors of digital education transformation is shown in Figure 1.

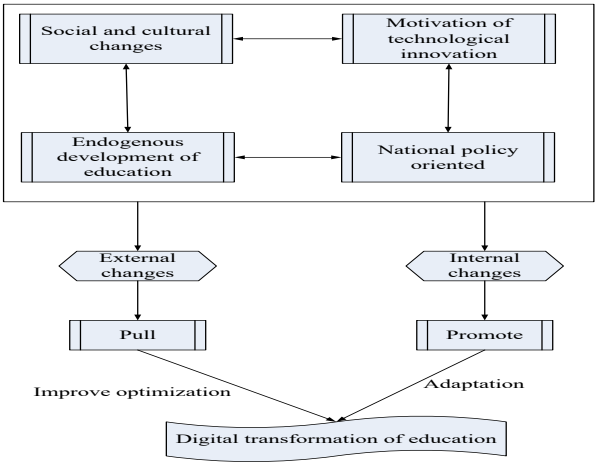

Figure 1 Influential factors model of digital education transformation

2.2 Evaluation Strategy

Evaluation strategies generally involve a combination of a variety of evaluation methods and tools. According to the overall goal of evaluation, it is a way and means to evaluate students' learning, with special emphasis on the guiding effect of evaluation on students. The evaluation strategy pays special attention to the diversity of evaluation methods, and provides students with evaluation according to the design of special evaluation theme activities [14]. The evaluation strategy stipulates that the main role of evaluation is fully used, and the theme activities of evaluation are further improved, this maximizes the impact of evaluation and encourages the achievement of cultural and educational objectives. Evaluation strategy refers to a specific practice or method used to evaluate the results of the classroom teaching process, and encompasses many aspects. It is proposed from the perspective of scientific methodology and is the flexible use of evaluation methods and tools. Evaluation methods and tools are more detailed and practical methods, which are the refinement of evaluation strategies. Evaluation strategies include the implementation, monitoring and feedback of evaluation methods and tools. Therefore, evaluation strategies are different from specific evaluation methodological tools. The evaluation strategy is to design the evaluation theme activities suitable for classroom teaching, and use a variety of evaluation methods and tools in connection with the actual situation to complete different types of teaching objectives in different environments. For example, when designing an evaluation strategy in which students' information awareness level is the teaching goal, the evaluation strategy is designed according to the information awareness shaping regulations, and the evaluation activities are organized according to the evaluation strategy. Finally, according to the actual needs, the corresponding evaluation methods and tools are selected to complete the overall evaluation objectives. Figure 2 shows the construction of the evaluation strategy system.

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

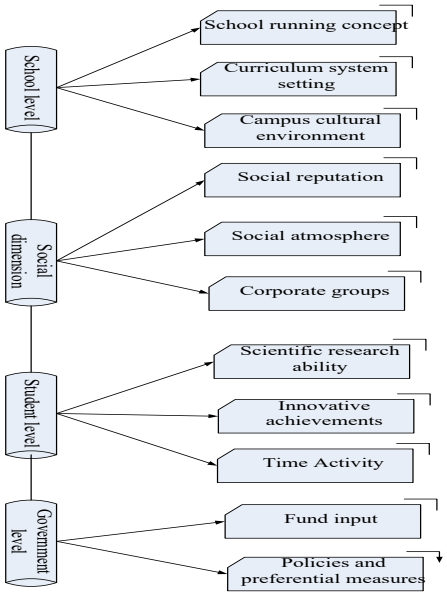

Figure 2 Construction of evaluation strategy system

2.3 Digital Education of Big Data and Artificial Intelligence

The term "big data" is spread across all walks of life in today's society, and it is becoming more and more widely used in many fields. However, its existence is not very long, and it can only be traced back to before the invention of data storage and the advent of the Internet. The continuous accumulation of data has played a pivotal role in today's world [15-16]. Technology enables communication between class language and machine language. He can create data entity models to record and collect personal behavior data in all aspects. By integrating data collection and data analysis systems, automatic push of network resource data and dynamic feedback of conclusions are realized, so as to promote the construction of big data environment. The establishment and implementation of education digitalization in the new era of big data natural environment enables students to feel the whole process of interactive, intelligent, digital and dynamically changing teaching. This may encourages the quick advancement of instruction in information management and intelligent systems [17]. The changes brought about by big data are being welcomed by the educational sector as well. By collecting teaching data from various aspects and using data statistical analysis methods for comprehensive sorting and analysis, it can analyze the personal behavior of teaching in real time. This makes it possible to make optimal decisions for teaching and promote the digitalization of teaching. Big data and education go hand in hand and are an unavoidable trend for the long-term growth of education. The integrated development of education in the big data era has a number of benefits and perfectly illustrates the development trend and characteristics of education digitalization. Figure 3 illustrates the benefits of education's integrated development in the age of big data.

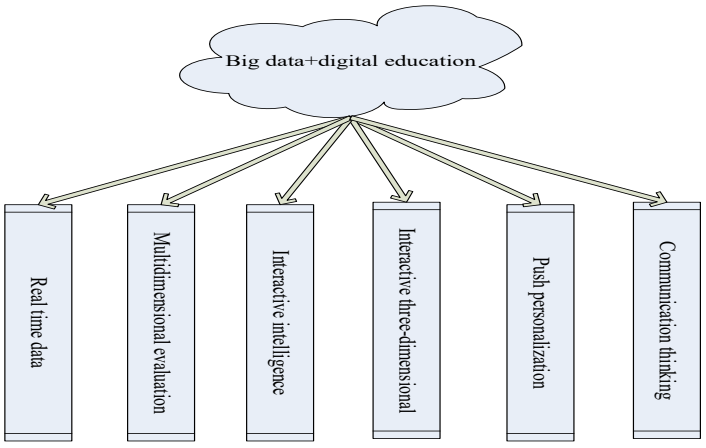

Figure 3 Big data+digital education development characteristics

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

Artificial intelligence is an interdisciplinary discipline that looks like the content of a course, but in fact it is a comprehensive subject that includes many aspects. The development and application of intelligent machines can imitate and expand the role of human organs, and replace many simple, repetitive, complex and even ordinary things and work, which has made the society's demand for workers have undergone a huge transformation.

Artificial Neural Networks (ANN) algorithm is a more used algorithm in artificial intelligence, and it is also an emerging information science that learns from the human brain. Its development has had an important impact on many areas. Its calculation formula is:

$$g_i^h = \sum_{j=1}^{n} Q_{ij} * y_j^h - \vartheta_i \tag{1}$$

Among them, j is the number of samples extracted, and the output value of each pair of parameters that contribute to the digital transformation of education is $y_j^h = f(g_i^h)$. Function f is the neuron activation function.

The input activation value T_l^h of each neuron in the output layer is calculated as:

$$T_l^h = \sum_{j=1}^{n} L_{jl} x_j^h - \gamma_l \tag{2}$$

$$X_{i,j}^{(l)} = \sum_{n=0}^{h_1} \sum_{n=0}^{h_2} Q_{m,n}^{(l)} * X_{i+m,j+n}^{(l-1)} + Q_{y_i}^{(l)} \tag{3}$$

Among them, l is the number of samples extracted, and the output value of each pair of parameters that contribute to the digital transformation of education is $T_l^h = f(X_{i,j}^{(l)})$. $Q_{m,n}^{(l)}$ represents the feature map of layer i^h, and $X_{i+m,j+n}^{(l-1)}$ represents the deviation matrix.

In the ANN algorithm, the global sum of squares error Q of the network can be used to determine whether the actual response output of the network output layer is consistent with the expected response output, and the calculation formula is:

$$Q = \sum_{K=1}^{N} Q_K \tag{4}$$

$$Q_K = \sum_{l=1}^{q} \frac{(y_l^k - b_t^k)^2}{2} \tag{5}$$

Among them, Q_K is the output square sum error of training mode. ANN algorithm flow is shown in Figure 4. ANN algorithm flow is shown in Figure 4.

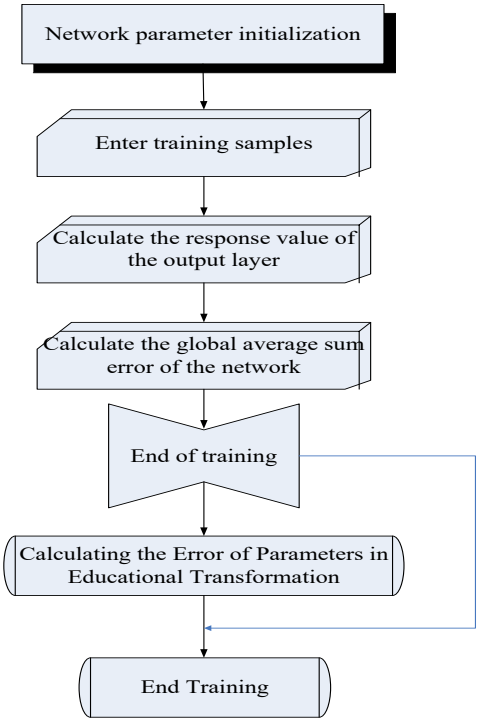

Figure 4 ANN algorithm training flow chart

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

2.4 Impact of Big Data and Artificial Intelligence on Education Transformation

(1) Development of new forms of high-quality digital curriculum resources

Resources has become more and more convenient and fast, and various types of digital course resources are constantly emerging. However, with the transformation of technology, the final form of support point information and resources is uncertain, and it is likely that there would never be a final form [18]. The basic knowledge of digitalized course resources and traditional paper media course resources are the same, but new forms of digital course resources can bring richer and more diverse learning experiences. Digital Internet course resources have grown explosively, but they must focus on developing new forms of high-quality digital course resources, in order to improve the quality of course resources and their specific practical effects. Therefore, the development of digital transformation of education would definitely choose the development concept of "education resources". Through the flexible use of high-quality data curriculum resources, the sharing of resources can be promoted to meet the needs of digital transformation of education, so that education can achieve a true high-quality level and fairness.

(2) Construction of high-quality education evaluation system

After entering the link of high-quality development, it would undoubtedly be the trend of future education to reconstruct the structure and form of traditional education according to the digital transformation of education, establish a more open, high-quality and fair education system, and further promote education reform [19]. The digital transformation of education is to develop education empowered by technology, and more attention is paid to the importance of electronic information technology in the past education reform and innovation. For example, the characteristics of 5G modern communication technology such as high speed and low latency have had a subversive impact and change on the dissemination of information and knowledge. Virtual reality technology provides special tools, environments and educational methods for intelligent learning, and integrates the illusory world and the real world in a variety of ways, thus forming a new industry and value space. Artificial intelligence-based intelligent learning tools, environment, and teaching methods can promote the accuracy of education and personality development. A new comprehensive service platform built by digital equipment can consolidate an excellent education service system. The formation of an open, excellent and fair quality education service system depends on the digital transformation of education. The development strategy of building a high-quality education system puts forward many requirements for the digital transformation of education, and there is still huge room for development in the digital transformation of education.

2.5 Network Security Solutions

Network security means to maintain that the software, hardware configuration and information of the entire network system would not be damaged by external or internal environmental factors, which ensures that the system software can operate normally and that the services provided by the network would not be interrupted [20]. In the construction of the campus network, the preventive measures for network security in the natural environment of the network at this stage and some specific solutions that should be used when network security problems arise. This can avoid the system network being attacked and the resulting collapse of the entire campus network, which avoids further unnecessary losses to the campus's education, teaching and network equipment. This is not conducive to the digital transformation of schooling, because digital transformation is very network-oriented. The campus network faces many security risks, which may be attacked by many different kinds of networks inside and outside the campus network. In addition, the campus network management ability of colleges and universities is generally low, and the campus network customer security awareness is widely poor. Campus networks are inevitably subject to virus infections, Trojan horses, network hacking, malicious program attacks and threats, which would lead to some unexpected network security incidents. In particular, for schools that want to digitally transform education, if cybersecurity is difficult to guarantee, the transformation would be difficult to achieve. Therefore, many professional technologies and methods for maintaining network security have been developed, and actively create a safe and stable campus network security system software for network customers.

3. Experimental Exploration of Evaluation Strategies for Digital Transformation of Education

According to the formulated data collection specifications, the evaluation method composition of

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

education data is improved, so that the evaluation process and the learning process are closely linked. In order to study whether the digital transformation of education is helpful in evaluating learning, it was compared with traditional education models. This paper examined whether the research subjects have advantages in three aspects: evaluation feedback speed, diversification of evaluation methods, and scientific evaluation process. 20 teachers from a school were invited to rate these three aspects, and the score was 1-5 points. The higher the score, the better. The two models were scored and compared to verify whether the subjects in this paper had superiority in the evaluation method. The specific scoring comparison results are shown in Figure 5.

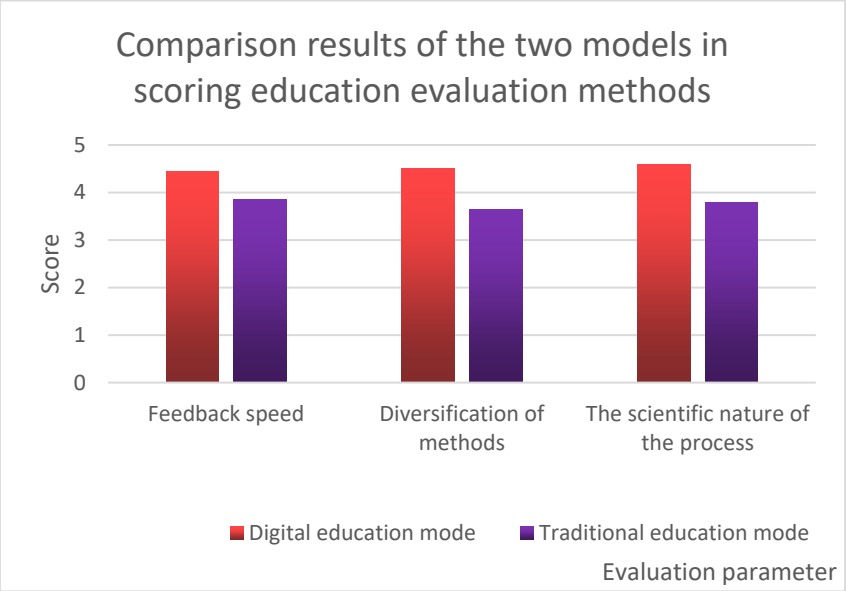

Figure 5 Comparison results of the two models in scoring education evaluation methods

By observing Figure 5, it can be found that there were significant advantages in the evaluation method of learning for the digital transformation of education. Teachers rated all aspects of their learning evaluation methods very high, above 4.45 points, while the traditional education model of learning evaluation methods were only rated below 3.85 points. Among them, the highest score of the research subjects in this paper was the scientificity of the evaluation process, with 4.6 points, which was 0.8 points higher than the traditional education model. The lowest rating was the speed of feedback from the evaluation, with 4.45 points, which was 0.6 points higher than the traditional education model. The difference between the scores of the two models in the evaluation indicators of each parameter was the smallest. Traditional education models scored the highest on the speed of feedback in evaluations, with a score of 3.85. The lowest score was for diversity of evaluations, at 3.65, 0.85 points lower than the subjects studied. The two modes had the largest difference in scores in this parameter evaluation index. The above data showed that after completing the digital transformation of classroom teaching, it can improve students' comprehensive ability in all aspects. Through the development of a comprehensive ability evaluation mechanism, the construction of a new ability system for students can be promoted, so as to ensure the scientific nature of the evaluation process. At the same time, the combination of data-based evaluation methods can be optimized. From a single evaluation method to a diversified evaluation method, the evaluation method is diverse. Finally, it can also provide the speed of feedback on learning assessments. It can better assist students in learning and enhance the quality of instruction, and the evaluation carried out during the learning process can help teachers quickly identify the unique learning circumstances of each student.

In order to adapt to digital reform and innovation, and enable education to better integrate into the rapidly changing society, the cultivation of students' digital ability is an indispensable core competency for educators and learners. Digital competencies have become indispensable for the digital transformation of education. In order to study the advantages of digital transformation of education based on big data for the development of students' digital ability, it was compared with the traditional education model. This paper compared the digital transformation of education to the traditional educational model in order to study the benefits of big data for the development of students' digital abilities. It then looked at whether the research objects in this paper have advantages in four areas: teaching mode, teaching content, learning resources and teaching process. The 20 teachers were still invited to score the effect. The results of the specific scoring comparison of the two modes are shown

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

in Figure 6.

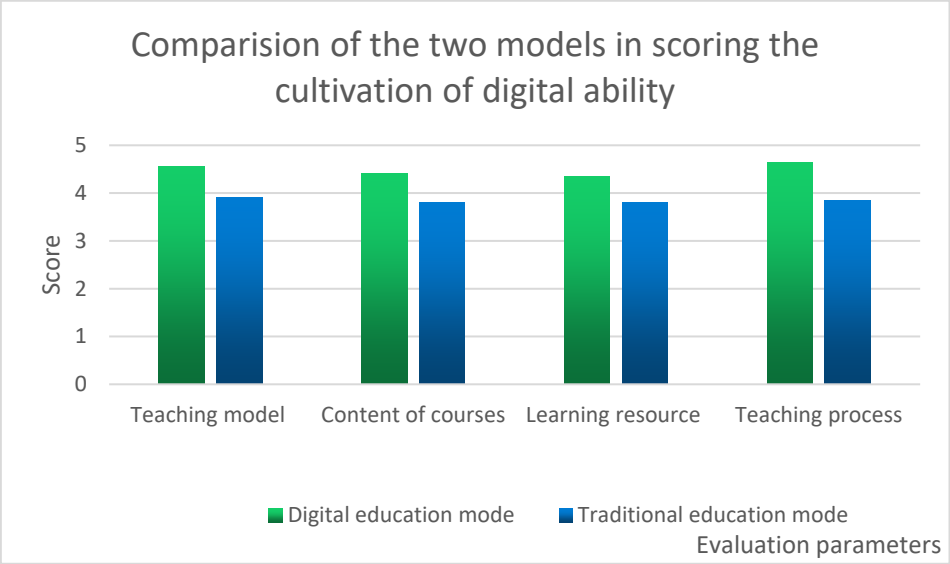

Figure 6 Comparison of the two models in scoring the cultivation of digital ability

In Figure 6, the digital transformation of education had obvious advantages in the cultivation of students' or educators' digital capabilities. The ratings of all teachers were very high, and the final rating result was the average of 20 teachers' scores, which was above 4.35 points. However, the evaluation parameters of the traditional education model were scored only below 3.9 points. Among them, the highest score of the subjects in this paper was the teaching process, with 4.65 points, which was 0.8 points higher than the traditional education model. The lowest score was for learning resources, with a score of 4.35, which was 0.55 points higher than the traditional education model. The traditional education model scored the highest at 3.9, while the lowest score was for teaching content and learning resources, both with 3.8 points. Through the above data, it can be found that the education reform camp is teaching, and classroom teaching is the key to digital transformation. The digitalization of the educational process can not only be taught using traditional educational methods, but also intelligent digital devices. This allows the data information in learning to be used to the maximum extent and truly serves to improve students' new abilities. By transforming teachers' teaching concepts and improving their digital education capabilities, it can better help students acquire digital competencies and cultivate innovative talents.

If education wants to achieve digital transformation, it must solve the problem of cybersecurity. Most forms of teaching rely on the network, and if network security cannot be maintained, it would greatly hinder the digital transformation of education. Therefore, educational network security solutions were researched in four areas: cyber viruses, Trojan attacks, hacker attacks, and malware threats. It observed what is the difference between the accuracy of the use of network security solution system and fate for the above four parameters, and whether there are advantages of using network security solution system. The specific comparison results are shown in Figure 7.

Analysis of Figure 7 shows that after using the network security solution system, the accuracy of defense against various cyber attacks was higher. The accuracy was above 95%, while the accuracy was only below 89% before use. Among them, the accuracy of resistance to hacker attacks after use was the highest, as high as 96.53%, which was 8.57% higher than before use. The least accurate protection was against malware threats, at 95.12%, but this was 8.67% higher than before use. The most accurate defense against different network attacks before use was Trojan attacks, which was 88.56% and was 7.3%lower than after use. The accuracy of network security attack parameters before and after use was minimal; the least accurate protection was malware threats, only 86.45% The biggest difference in the accuracy of protection against different types of network attacks before and after use was network viruses. It was 86.59% before use and 96.5% after use, with a difference of 9.91%. These data showed that the use of network security solution system can greatly improve the protection of external network security attacks, and can better maintain the security of the network, so that the digitalization of education can be realized and used safely.

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

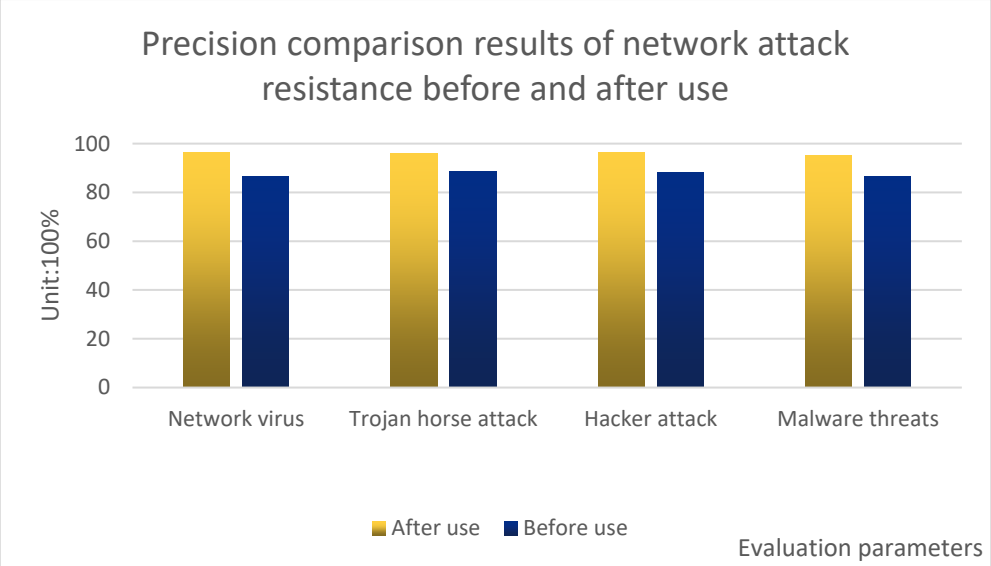

Figure 7 Comparison results of network security solution system's resistance accuracy to network attacks before and after use

4. Conclusions

The digital transformation of education is a hot topic in education reform and practice at this stage, and it is also a trend in the development of education innovation. Based on the research object of this paper, this paper studied the evaluation strategy of digital transformation of education. In order to better reflect the superiority of the research objects in this paper, it was compared with the traditional education model. It was found that after the realization of the digital transformation of education, there have been many changes in the evaluation method of learning, which can make the evaluation method more diversified and not single. It can accelerate the distribution of instructional information and enable resource sharing, thereby enhancing students' digital literacy and fostering their creative potential. At the same time, the network security solution system was studied. Only when there is no problem in network security can education better realize the digital transformation of education and better implement the new measures for digital transformation of education. By conforming to the trend of new technological development, the specialization of education policies and regulations, the precision of management methods and the all-round improvement of humanized learning standards can be completed, so as to build a high-quality education system. However, due to limited capacity, only teachers were consulted on the evaluation method of learning for digital transformation in education. Teachers scored, but not selected students for evaluation, and students are also the subject of the digitalization of education and should also be investigated.

Acknowledgements

This work was supported by Education Reform Research Project empowered by Jingdezhen Ceramic University with the title:Research on the Cultivation Innovative Spirit for English Majors from the Perspective of CLIL ; Project Number: TDJG-24-Y35.

References

[1] Alhubaishy, Abdulaziz, and Abdulmajeed Aljuhani. "The challenges of instructors' and students' attitudes in digital transformation: A case study of Saudi Universities." Education and Information Technologies 26.4 (2021): 4647-4662.
[2] Marks, Adam. "Digital transformation in higher education: A framework for maturity assessment." International Journal of Advanced Computer Science and Applications 11.12 (2020): 504-513.
[3] Barzman, Marco. "Exploring digital transformation in higher education and research via scenarios." Journal of Futures Studies 25.3 (2021): 065-078.
[4] Rospigliosi, Pericles asher. "Digital transformation of education: can an online university function

ISSN 2663-8169 Vol. 7, Issue 5: 92-101, DOI: 10.25236/IJNDE.2025.070514

fully?." Interactive Learning Environments 28.8 (2020): 945-947.
[5] Bygstad, Bendik. "From dual digitalization to digital learning space: Exploring the digital transformation of higher education." Computers & Education 182.1 (2022): 104463-104464.
[6] Balyer, Aydin. "Academicians' Views on Digital Transformation in Education." International Online Journal of Education and Teaching 5.4 (2018): 809-830.
[7] Bond, Melissa. "Digital transformation in German higher education: student and teacher perceptions and usage of digital media." International Journal of Educational Technology in Higher Education 15.1 (2018): 001-020.
[8] Francisco J. "An artificial intelligence educational strategy for the digital transformation." International Journal on Interactive Design and Manufacturing (IJIDeM) 14.4 (2020): 1195-1209.
[9] Jaiswal, Akanksha, and C. Joe Arun. "Potential of Artificial Intelligence for Transformation of the Education System in India." International Journal of Education and Development using Information and Communication Technology 17.1 (2021): 142-158.
[10] Mkrttchian, Vardan. "Big data and internet of things (IoT) technologies' influence on higher education: current state and future prospects." International Journal of Web-Based Learning and Teaching Technologies (IJWLTT) 16.5 (2021): 137-157.
[11] Bamiah, S. N, Sarfraz Nawaz Brohi, and Babak Bashari Rad. "Big data technology in education: Advantages, implementations, and challenges." Journal of Engineering Science and Technology 13.2 (2018): 229-241.
[12] Pereira, Carla Santos. "An educational approach for present and future of Digital Transformation in Portuguese organizations." Applied Sciences 10.3 (2020): 757-758.
[13] Al Hasani, Salem Hamad Saeed, and Nor Azilah Husin. "A review of digital transformation of education in Oman." Journal of Business Management and Accounting 11.2 (2021): 041-059.
[14] Mohamed Hashim, Mohamed Ashmel, Issam Tlemsani, and Robin Matthews. "Higher education strategy in digital transformation." Education and Information Technologies 27.3 (2022): 3171-3195.
[15] Limani, Ylber. "Digital transformation readiness in higher education institutions (HEI): The case of Kosovo." IFAC-PapersOnLine 52.25 (2019): 052-057.
[16] Mikheev, Alexey, Yana Serkina, and Alexander Vasyaev. "Current trends in the digital transformation of higher education institutions in Russia." Education and Information Technologies 26.4 (2021): 4537-4551.
[17] Bernhard-Skala, Christian. "Organisational perspectives on the digital transformation of adult and continuing education: A literature review from a German-speaking perspective." Journal of Adult and Continuing Education 25.2 (2019): 178-197.
[18] Oliveira, Katyeudo K. de S, and Ricardo AC de SOUZA. "Digital transformation towards education 4.0." Informatics in Education 21.2 (2022): 283-309.
[19] Jackson, Nicole C. "Managing for competency with innovation change in higher education: Examining the pitfalls and pivots of digital transformation." Business Horizons 62.6 (2019): 761-772.
[20] Yakovenko, Irina. "The blockchain technology as a catalyst for digital transformation of education." Technology 10.1 (2019): 886-897.