

Reform and Innovation of Intelligent Education Network Information Technology in Employment Practice Mode

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Abstract: With the transformation of the talent structure, many employers are recruiting compound talents, and the requirements for posts are getting higher and higher. At present, many students are unable to adapt to the job market after graduation. The reason is not only the lack of knowledge, but also the lack of real practical ability. In view of this situation, colleges and universities should change their educational concepts in a timely manner. While imparting theoretical knowledge to students, they should also exercise their practical ability, which is crucial for adapting to the job market. Practice is an important educational method to cultivate students' professional skills and practical ability. Currently, many colleges and universities have proposed some specific practice models. However, many of them are too conservative to match the development of the times, which ultimately leads to poor practice results for students and affects their future employment prospects. In this case, the practice mode must be reformed and innovated to enhance students' comprehensive abilities and their readiness for the job market.

1. Introduction

An excellent practice mode is essential not only for cultivating students' professional skills but also for facilitating their adaptation to the job market. Many current practice models do not meet the required standards, and the content of the practice lacks relevance and timeliness, which ultimately leads to a waste of students' time and potential. Under the backdrop of intelligent education, an increasing number of colleges and universities are beginning to reform their teaching methodologies. As part of these teaching methodologies, the practice mode should also be reformed and innovated to better prepare students for the job market and enhance their future employment prospects.

Practice is a test of students' theoretical knowledge. Many scholars have studied the practice mode. Stirling Ashley analyzed the current situation of the development of the practice model in higher education, and finally found that the existing practice model overemphasized practical experience and ignored the relationship between theory and practice [1]. Nghia Tran Le Huu believed that trainee teachers played an extremely important role in the internship model, and pointed out that an excellent internship model could promote the future planning of teacher identity [2]. Hora Matthew T emphasized the importance of internship remuneration in the context of the new era, and pointed out that reasonable and compliant remuneration could stimulate students'

enthusiasm for internship [3]. Lei Simon A mentioned that practice provided students with an opportunity to apply classroom theoretical knowledge to the actual environment, and then gave specific strategies for the practice model [4]. Anjum Sadia discussed the practice mode of economic management major, and finally concluded that the practice mode with weak pertinence affected the students' practice results [5]. Sauder Molly Hayes summarized the problems that were easy to occur during the implementation of the internship model of various majors, and then pointed out that specific and positive interventions were very beneficial to the smooth implementation of the internship model [6]. McHugh Patrick P analyzed the difference between the paid internship model and the unpaid internship model. The analysis results showed that the practice effect of the paid practice model was obviously better than that of the unpaid practice model [7]. The above research work on practice mode is still of great reference value, but it does not make use of network information technology.

The constant updating of education concept makes the application of network information technology in the field of education more and more mature. Greenhow Christine analyzed the impact of network information technology on pedagogy or student learning. Research showed that network information technology had a good performance in improving teaching environment and improving students' learning efficiency [8]. Ratheeswari K analyzed the current application of network information technology in the field of education, and finally found that interactive multimedia was the most commonly used technology in teaching activities [9]. Manca Stefania proposed an education mode for teacher training and teacher professional development by using network information technology. Practice showed that this education mode could promote teachers' professional training and career development to a certain extent [10]. Mumin U. Abdullah believed that students and teachers could be connected through network information technology for distance learning activities. The experimental results showed that this distance teaching method could strengthen the communication between teachers and students [11]. Boholano Helen B applied network information technology to the middle school teaching system. Practice showed that the new system could provide students with more comprehensive and targeted learning courses [12]. Akramova H analyzed the application of network information technology in the education process of general and special schools. Finally, it was concluded that no matter ordinary schools or special schools, network information technology could provide them with rich network teaching resources [13]. Demitriadou Eleni applied the augmented reality technology in the network information technology to the teaching mode. The empirical data demonstrated that, in contrast to the conventional pedagogical paradigm, the innovative pedagogical paradigm was more efficacious in engendering a heightened level of academic fervor among the student populace [14]. These scholarly investigations pertaining to the utilization of cybernetic informational technologies within the educational milieu are characterized by a greater degree of specificity; however, they do not extend their purview to the realm of experiential methodologies.

Employment integration is a critical component of the education process, serving not only as a validation of students' theoretical knowledge but also as a vital avenue for enhancing their practical skills and employability. This paper initially addresses the transformation in educational reform facilitated by intelligent education and network information technology. It then delves into the imperative for practical experience and identifies the shortcomings within the prevailing practice models that impede effective employment readiness. Subsequently, the paper introduces an innovative practice model that integrates network information technology, using the education major as a case study to demonstrate its potential in bolstering students' practical skills and employment prospects. The study reveals that the proposed practice model significantly enhances the efficacy of practical training and directly correlates with improved student performance in professional internships, thereby augmenting their employability.

2. Intelligent Education and Educational Reform under Network Information Technology

The emergence of intelligent education is based on modern information technology. It is a new educational model that uses intelligent technology to provide teaching activities for teachers and students. As shown in Figure 1, the basic framework of intelligent education can be divided into four parts, including intelligent infrastructure, intelligent education platform, intelligent teaching support system and intelligent education security system.

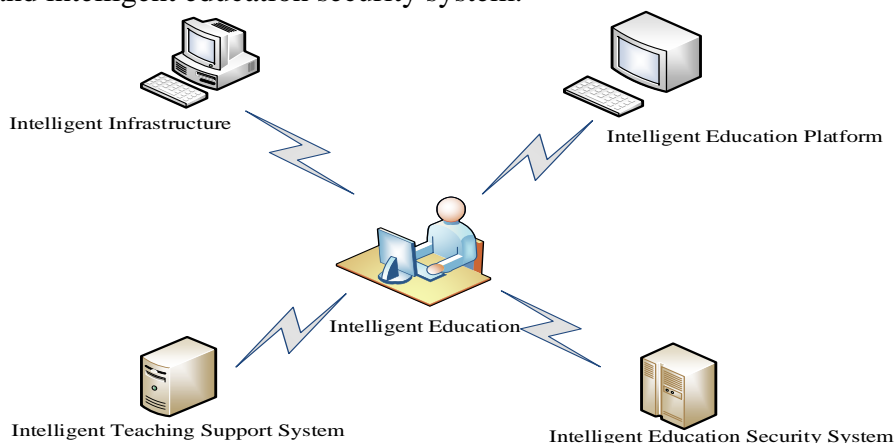


Figure 1: Basic framework of intelligent education

Intelligent infrastructure includes wireless networks, databases, computers and various wireless intelligent terminals. Intelligent education platforms, namely artificial intelligence technology and network information technology, are used to provide resources and methods for teaching activities [15]. The intelligent teaching support system is responsible for providing teachers and students with information-based and intelligent teaching means and learning tools. The intelligent education guarantee system provides guarantee for the smooth development of intelligent education, including human, material, financial and technical support.

The traditional education model, characterized by its rigid structure and in-person, time-bound format, often fails to adequately equip students with the skills necessary for the evolving job market. This traditional approach to education—in which teachers teach knowledge directly to students—is ineffective in today's competitive workplace. The development of network technology has broken the shackles of traditional education methods and the limitations of time and space. This evolution of science and technology is a key link in the reform and innovation of the employment-centered educational internship model. The network-based education model brings a wealth of learning materials to students, which are closely related to their actual needs. This will not only ensure that students complete their studies on time, but also enhance their self-learning ability and adaptability, making them more likely to be favored by employers. At the same time, the college has also built a broad learning space for teachers and students, and a broad stage for their careers.

3. Necessity of Practice and Problems in the Current Practice Mode

(1) Necessity

Corporate practice activities provide companies with a platform that is integrated with corporate production practices. Through internships, teachers can clearly understand their professional abilities, which is also an important condition for realizing inter-professional career changes. From a practical perspective, students gain only theoretical knowledge and cannot obtain employment immediately. Internship is a good platform to test the results of experimental teaching and cultivate

students' practical ability. Through practical activities, students are able to apply what they have learned on the job. This will not only improve his professional skills, but also lay a good foundation for his career. In essence, practical teaching is a way to transform theoretical knowledge into practical abilities, making students available talents in society. The practical teaching model that integrates intelligent education and network information technology is an effective method.

(2) Existing problems

At present, practical activities are not long enough and lack diversity, which plays an important role in whether graduates can play an important role in the fiercely competitive employment environment. Currently, university education mainly adopts a teaching method with theoretical teaching as the main content, and students' internship time is limited to one or two semesters. It is impossible to give students more practical skills in such a short time, but employers are paying more and more attention to this. In addition, some problems emerged, such as being too simple and having too narrow a focus. For example, tourism management students often work in hotels, while education students often take a short-term teaching job in school. Despite this, this model lacks high-quality, job-oriented internship experiences.

Evaluation criteria for actual work results are inconsistent and rely heavily on subjective factors. They each have their own grading criteria, but due to their complexity, teachers tend to evaluate their students based on overall scores. This approach, paired with "graduation conditions," creates an unfair effect that further frustrates biased students.

There is no organic combination of modern educational technology and actual teaching. Currently, multimedia and intelligent teaching methods suitable for modern teaching have appeared in colleges and universities. Without this skill, interns cannot fully develop the skills they need for their time. This lack will not only have a negative impact on their career development, but also their future.

To solve the above problems, it is necessary to use modern technology and technology to continuously improve and innovate education and teaching, so that education and teaching can be closely integrated with the needs of the talent market. This shift would enrich the internship experience and better prepare students for the modern workforce.

4. Reform and Innovation of Internship Mode under Network Information Technology -- Taking Education Major as an Example

(1) The demand of practice environment under network information technology

To better meet interns' and instructors' needs, the internship environment facilitated by network information technology should have a robust resource-sharing capability. It should also ensure smooth internship activities execution, focusing on employability outcomes. The specific requirements for the internship environment, with an emphasis on job market integration, can be outlined as follows:

Resource Library: This digital repository offers interns a comprehensive collection of essential resources, including teaching plans, a material library, interactive software, classroom video recordings, internship archives, and teaching reference materials. These resources align with industry standards and job market requirements.

Communication Platform: This platform serves as a hub for interns and instructors to engage in dialogue and share insights. It fosters a community of practice closely linked to employment networks and professional development.

Information Sharing and Integration: Leveraging network information technology, the platform processes and disseminates information on lesson materials, teaching plans, and summaries. This proactive sharing enables interns to understand the practice landscape and stay informed about

industry trends.

Guidance Module: Timely feedback and guidance are crucial for sustaining interns' engagement. The guidance module provides just-in-time support to bridge mentorship gaps. It helps interns navigate their career paths effectively, focusing on employability and career advancement.

(2) Practice mode framework based on network information technology

As shown in Figure 2, the intern mode architecture based on network information technology includes five parts: intern subject, intern environment, school opinions, functional modules, and technical support.

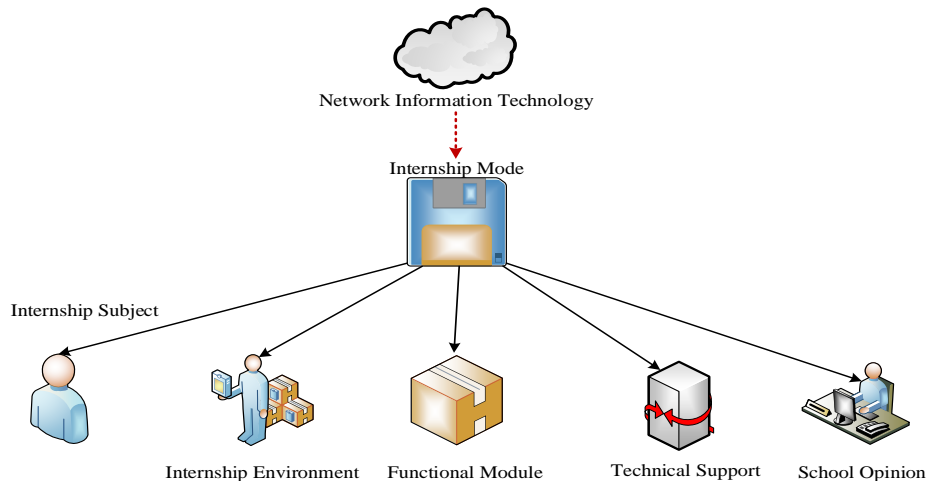


Figure 2: Internship mode framework based on network information technology

Interns refer to participants in the internship activities, including interns and instructors. Internship environment refers to the internship site, resources, equipment, staffing, etc. provided for interns. The school's opinion is that the school leaders put forward requirements and suggestions for the practice mode according to the practice standards. Technical support is the network information technology used in this paper. The functional module is the most complex and important part of this architecture, which contains many modules to promote the smooth implementation of the internship activities.

(3) Functional modules in the new practice mode

A. Internship Platform

The platform's key role is to share IT internship resources, fostering communication and collaborative learning. For education majors, lesson preparation is critical, often challenging to supervise closely due to time constraints. The platform allows instructors to form collaborative groups, providing guidance to interns and enabling real-time monitoring of lesson preparation, crucial for assessing readiness for teaching roles.

B. Internship Classroom Module

This online class simulates students' practical skills. Through this platform, students can upload and share their course videos, promoting mutual communication and guidance among classmates, thereby improving their educational career.

C. Resource Sharing Module

This module shares educational content, including texts, visuals, and videos, along with teaching summaries from interns, enhancing collaborative learning. It also features an information display and calendar management tool, keeping interns informed about key tasks and industry trends relevant to job readiness.

D. Communication and Cooperation Module

This article divides the course into discussion areas and cooperation areas to promote

communication and cooperation between students and instructors. It supports mutual evaluation and external mentorship, creating a community that prepares interns for collaborative work environments common in the job market. As shown in Figure 3.

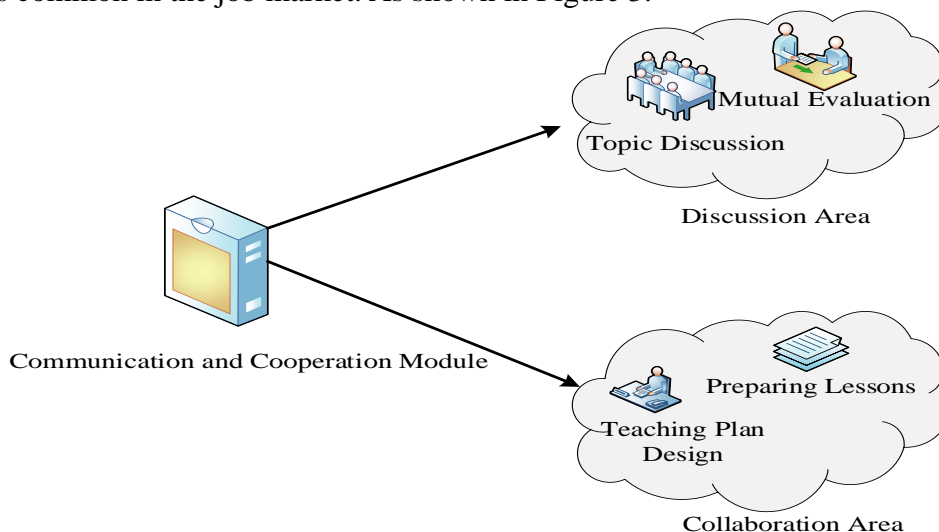


Figure 3: Main contents of communication and cooperation module

E. Evaluation module

This module is mainly used to guide teachers to conduct online evaluation on the internship results submitted by students. The evaluation contents include lesson preparation, lesson plan design, class situation, etc. In addition, each trainee teacher can also evaluate the teaching situation of other trainee teachers by watching teaching videos. In general, evaluation is not only the judgment of students' practice achievements, but also the guidance and help for teaching practice in this way to promote the smooth development of practice activities.

5. Experimental Results of the New Practice Model

Under the influence of traditional teaching concepts, many colleges' practice models are also conservative, which ultimately leads to the students' practice effect is not very ideal. This paper takes teaching practice as an example to apply network information technology to practice mode. A new practice environment has been created, and a new practice platform has been built, thus finally forming a new practice mode that conforms to the current era background. In order to know whether the new model can be recognized by teachers and students, this paper investigates the satisfaction of 300 teachers and students (150 teachers and 150 students each) with the new practice model. The survey is conducted in the form of a questionnaire. The respondents are interns and instructors of the education major A of the university. The degree of satisfaction is divided into three levels: dissatisfied, satisfied and very satisfied. The survey results are shown in Table 1.

Table 1: Satisfaction of interns and instructors with the new practice model

Satisfaction	Trainee		Academic Advisor	
	Number of people	Proportion	Number of people	Proportion
Dissatisfied	9	6%	7	5%
Satisfied	64	43%	71	47%
Very satisfied	77	51%	72	48%

It can be concluded from the data in Table 1 that more than 90% of the 150 people, whether interns or instructors, are satisfied with the new internship model (both satisfied and very satisfied). Obviously, very few people are dissatisfied, which indicates that the application of network information technology in the internship model is relatively successful.

Internship achievements can best reflect the interns' internship achievements. In order to have a more comprehensive understanding of the interns' internship situation, the instructor or the internship unit scores the interns' scores at regular intervals. As for whether the new practice mode can improve the performance, the 10 week results of the interns are investigated and compared with the results under the traditional mode when the new practice mode is applied. The survey object is still the interns of the education major A of the university. The traditional mode refers to the practice mode that does not make use of the network information technology. The new practice mode is abbreviated as the new mode for the convenience of description in the figure. The specific findings are shown in Figure 4.

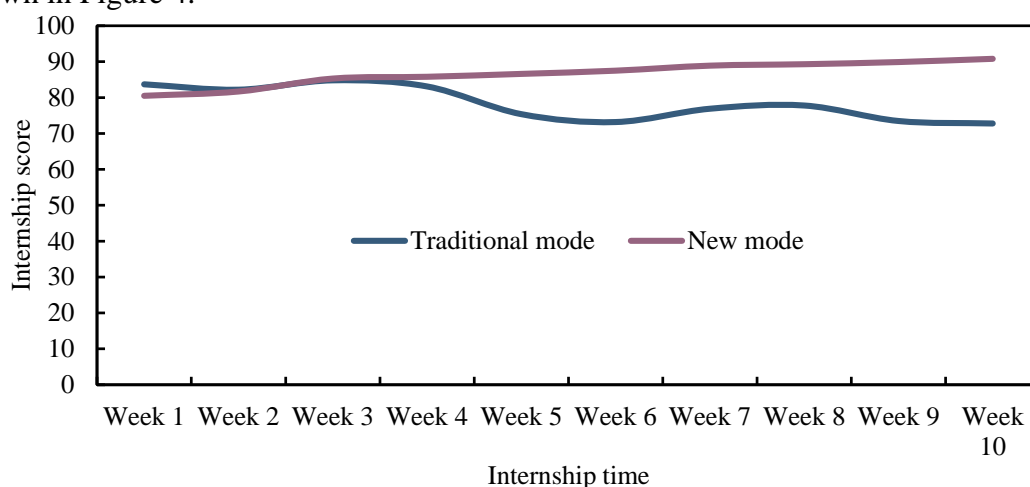


Figure 4: Changes of internship scores in 10 weeks under the two internship modes

As can be seen from the chart in Figure 4, in the first four weeks of the traditional model, the score of the internship is above 80 points. After the fifth week, the score drops below 80 and stays at that level for the next few weeks. On the other hand, the new model had lower scores in the first two weeks than in the initial period, but from the third week, the scores were higher and stayed above 80, and even reached 90 or above by the 10th week. Overall, with the exception of the first two weeks, performance during the 10-week period was slightly lower than in the initial period, but showed a continuous upward trend, indicating that the application of the new method improved the performance of the interns.

Professional skills are an indispensable part of the internship content. A reasonable and excellent internship model is bound to improve the professional skills of interns. On the contrary, if the practice mode is unreasonable, its implementation becomes meaningless. In order to more specifically understand the application effect of the new practice mode, under the application of the traditional mode and the new mode, the interns from five majors of College A, namely, tourism management, business management, financial management, preschool education, and art design, are selected as the experimental objects to investigate their professional skill scores during the practice period (the scores are the average of all students). The specific number of people is 100 from each major, the survey findings are depicted in Figure 5.

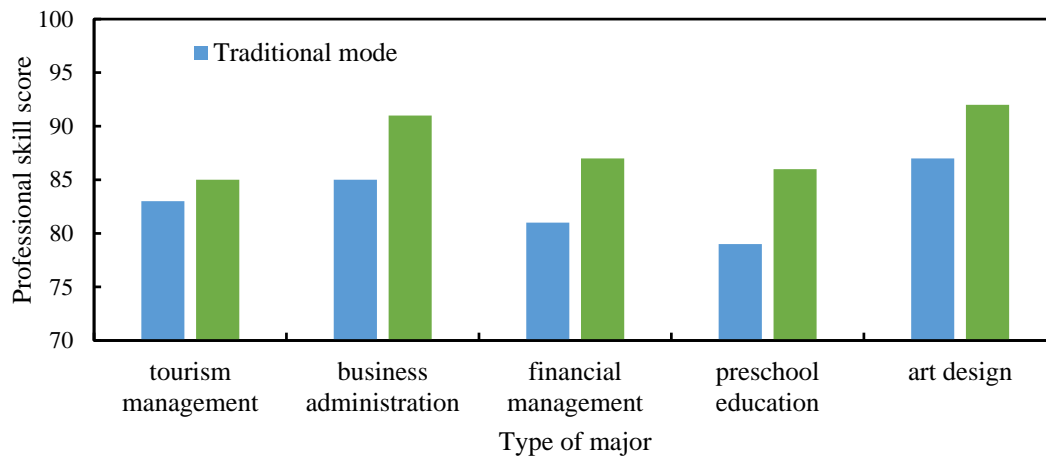


Figure 5: Trainees’ professional skill scores in five majors under two internship modes

In the traditional mode, the professional skills scores of tourism management, financial management and preschool education in the five majors are all below 85 points. The score of business administration just reaches 85, while that of art design exceeds 85. Under the new model, except for the professional skills of tourism management, which just reaches 85 points, the scores of other four majors exceeds 85 points, especially the scores of business administration and art design exceeds 90 points.

This paper also investigates the number of excellent students in the above five majors when applying the traditional model and the new model. Among them, the number of interns for each major is 300. The specific findings are shown in Figure 6.

From the histogram in Figure 6, it can be concluded that under the traditional mode, the number of excellent interns in the five majors does not exceed 100. The largest number is business administration, with 97 people. Under the new model, the number of excellent interns in business administration, financial management and preschool education has exceeded 100, and the largest number is still business administration. Although the number of excellent interns in tourism management and art design does not exceed 100, they both exceed 95, which are close.

In contrast, the number of students with excellent practice performance in each major is obviously more than that in the traditional model when the new model is applied, which reflects that the new practice model is effective in improving practice performance.

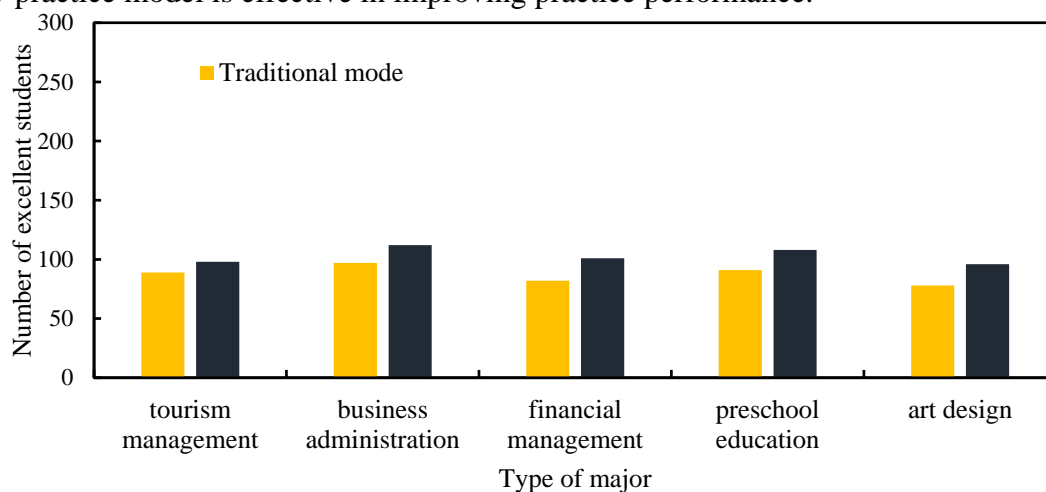


Figure 6: Number of excellent students in five majors under two internship modes

Influenced by the traditional education concept, many colleges and universities clearly indicate that students must complete the internship experience and obtain qualified results before they are allowed to graduate. The quality of the practice mode also determines the level of the practice results to a certain extent. Therefore, the internship model can affect the graduation rate. In recent years, many colleges and universities have tried to use a new practice mode (here refers to the practice mode using network information technology, which is also the type of practice mode studied in this paper). There are also many schools that are still stuck in their laurels and do not know how to innovate. In order to more accurately determine whether the new internship model can affect the graduation rate, College A and College B are selected to investigate their graduation rates from 2017 to 2021. Among them, College A applies the new model and College B applies the traditional model. Figure 7 presents the detailed outcomes of the graduation rate survey.

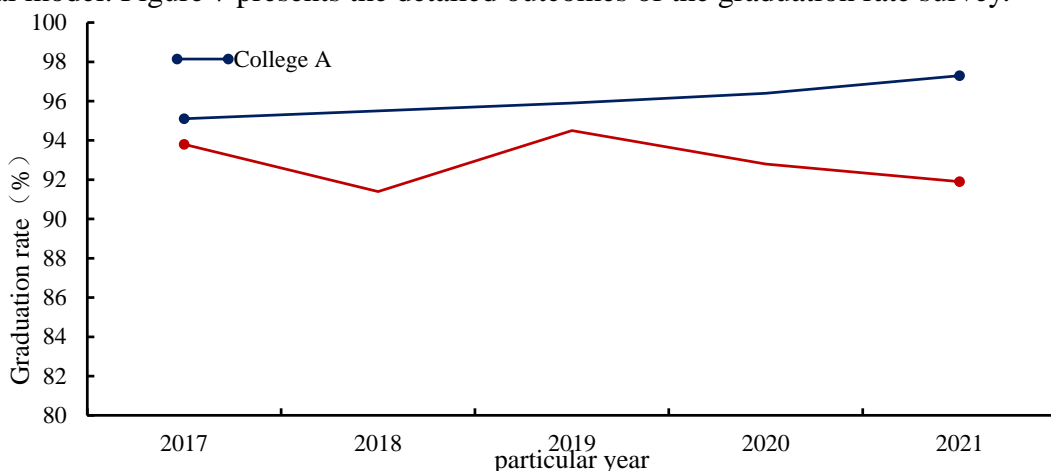


Figure 7: Graduation rate of two colleges and universities from 2017 to 2021

Figure 7 illustrates that the graduation rate of College A has been on the rise from 2017 to 2021, and the graduation rate exceeds 95% in 2017 and 97% in 2021. In contrast, the graduation rate of College B does not exceed 95% in the past five years, and the annual graduation rate fluctuates a little, and even continues to decline in the last two years. In general, the graduation rate of College A from 2017 to 2021 is higher than that of college B, which means that the graduation rate under the new internship model is higher than that under the traditional model, which is 3.4% higher.

6. Conclusion

Internships are a crucial component of higher education, directly impacting not only university graduation rates but also laying the foundation for students' future professional development and employability. The effectiveness of the internship model is pivotal for the smooth execution of practical activities. In the context of intelligent education, this paper addresses the imperative for reform in current internship practices. By integrating network information technology and focusing on the education field, a novel internship model is proposed. An experimental approach was utilized to assess the model's efficacy. Results indicate that the new model significantly enhances internship outcomes and graduation rates, thereby bolstering students' career prospects.

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