



# The Exploration and Research of Informatization Teaching in the Improvement of Nursing Teaching Quality and Teaching Reform

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**Abstract:** With the rapid development of information technology, the field of education has ushered in unprecedented changes. As a new teaching mode, information-based teaching has brought new opportunities and challenges to nursing education. This paper aims to discuss the applied and effect of information-based teaching in improving nursing teaching quality and promoting teaching reform, analyzed its advantages and disadvantages in nursing education, and put forward corresponding improvement suggestions.

**Keywords:** Information-based teaching; Nursing education; Teaching quality; Teaching reform

## 1. Introduction

Today in the 21st century, information technology has penetrating into every field of society, education industry is no exception. With its unique advantages, information-based teaching has gradually become an important direction of education reform. Especially in the field of nursing education, the applied of information-based teaching can not only improve teaching efficiency, but also enhance students' practical ability and innovative consciousness, so as to effectively improve the overall quality of nursing education.

## 2. Advantages of information-based teaching in nursing education

Information-based teaching has significant advantages in the field of nursing education, which can effectively break through the limitations of traditional teaching mode and provide students with more abundant and intuitive learning resources. pass information-based teaching, students can have access to a variety of multimedia materials, such as videos, animations, simulation experiments, etc. These materials can help students better understand and master pass nursing knowledge and skills. In addition, the information-based teaching also can promote the diversification of teaching methods, teachers can make use of network platform, virtual reality technology, design a more interactive teaching activities, so as to improve the teaching of interactive, enhance the students' learning enthusiasm and initiative. Students can also have a wider range of communication and cooperation with classmates and teachers through online discussion, remote collaboration and other means to enhance learning results.

## 3. Current situation and specific performance of applied of information-based teaching in nursing education

### 3.1 Wide applied of multimedia teaching resources

In today's education field, multimedia teaching resources have become an indispensable part of modern teaching. These resources include video, audio, animation and other forms, which can greatly enrich the teaching content and improve students' interest in learning. Especially in nursing teaching, displaying complex anatomical structure and surgical process through multimedia can help students better understand and master knowledge. For example, using the three dimensional animation technology, can the body's internal structure in an intuitive manner, so that the students can more clearly see the position and function of various organs and thereby deepen the understanding of nursing knowledge.

In addition, multimedia teaching resources can also simulate the real situation, so that students can practice in the virtual environment, enhance their hands-on ability and practical operation skills. For example, in nursing teaching, pass virtual reality technology, students can practice nursing operations in a simulated ward environment, thereby improving their clinical operation ability. At the same time, multimedia teaching resources can also improve students' participation and learning effect through interactive learning. For example, in nursing teaching, pass interactive teaching software, students

can conduct self-tests and self-assessment, so as to better grasp nursing knowledge.

### **3.2 Construction and utilization of online learning platform**

With the continuous development and innovation of Internet technology, online learning platform has gradually become an irreplaceable and important part in the field of education. These advanced platforms provide students with great flexibility, not only giving more freedom in the time and space of learning, but also allowing students to independently arrange their learning progress according to their actual situation and needs, thus getting rid of the shackles of time arrangement in traditional classroom teaching mode. At the same time, teachers can also use the functions of these platforms to release teaching resources, assign homework, online Q&A and other interactive forms, so as to achieve more efficient and convenient teaching interaction with students. In addition, the online learning platform can also provide a large number of learning materials and interactive discussion areas, which not only promote the communication and cooperation between students, but also further improve the learning effect and quality through the collisions of collective wisdom.

Moreover, these online learning platforms also have personalized recommendation functions, which can intelligently recommend suitable learning content and resources based on students' learning history and interests, so as to help students master knowledge more efficiently. At the same time, the platform of data analysis tool can help teachers real-time monitoring the learning process and effect of students, timely adjustment of teaching strategies, ensure that every student can get the best learning experience. The online learning platform also supports virtual laboratories and simulated environments, allowing students to carry out experiments and practice operations in virtual Spaces, making up for the shortcomings of traditional classrooms in practice.

In addition, the online learning platform also has the advantage of cross-region, breaking geographical restrictions, enabling high-quality educational resources to cover remote areas, so that more students have the opportunity to receive high-quality education. Multimedia teaching resources on the platform, such as video, audio and animation, make learning content more lively and interesting, and improve students' learning interest and enthusiasm. At the same time, the platform also supports mobile equipment access, students can study anytime and anywhere pass mobile phones or tablets, which greatly improves the convenience of learning.

### **3.3 Applied of virtual simulation technology**

Virtual simulation technology is an advanced computer technology, which can create a virtual world pass simulating the real environment. The applied of this technique in the field of nursing education is of great significance. pass virtual simulation technology, educators can construct a virtual scenarios that is highly similar to a real clinical environment and allow students to perform various practical operations in it without worrying about any actual risk or potential injury. This risk-free virtual practice is invaluable in improving students' clinical manipulation skills and enhancing their ability to cope with complex situations.

For example, in nursing education, students can virtual simulation technology to carry out a variety of simulation operations, such as injection, first aid, patient care and so on. These operations can be practiced repeatedly in the virtual environment until students can master them. pass this way, students are not only able to improve their operational skills, but also gain valuable experience in a simulated environment, thereby enhancing their self-confidence and ability to respond to practical clinical problems. In addition, virtual simulation technology can provide immediate feedback and assessment to help students identify and preventive errors in a timely manner, further improving their learning results. In a word, the applied of virtual simulation technology in nursing education provides students with a safe and efficient learning platform, which greatly promotes the development and progress of nursing education.

## **4. Improve the applied strategy in nursing education**

In order to further improve the applied effect of information-based teaching in nursing education, it is necessary to proceed from the following aspects:

First of all, teacher training must be strengthened to enhance teachers' ability in the applied of information technology. This can be achieved by regularly organizing teachers to attend various information technology training courses. In these courses, teachers will have the opportunity to deeply learn and master the method of using various instructional software and platforms. pass in this way, teachers will be able to use these tools more skillfully, so as to better integrate information teaching into all aspects of nursing education. In this way, not only can improve the teaching effect, but also enable students to obtain a better learning experience under the background of the information age.

Secondly, optimize the teaching mode and adopt mixed teaching method. This teaching method combines the convenience of online teaching with the intuitiveness of offline teaching, aiming to make full use of the advantages of both

teaching modes. pass careful design a series of flexible and diverse teaching activities, such as flipped classroom, online discussion, remote experiments, etc. , we can greatly stimulate students' interest in learning and make them more active and engaged in the learning process. At the same time, these activities can effectively improve students' ability to learn independently, help them develop problem-solving skills and critical thinking, and thus lay a solid foundation for their lifelong learning and future careers. pass, we can not only enhance students' academic achievements, but also help them better adapt to the rapidly changing social and work environment.

Finally, it is necessary to build a sound evaluation system so that the effects of information-based teaching can be evaluated scientifically and systematically. This system should include a variety of evaluation method, such as questionnaire survey, interview and analyzed, etc. , in order to fully understand the actual effect of information-based teaching. pass these method, we can regularly collect feedback from students and teachers to understand their real feelings and suggestions on information-based teaching. These feedbacks will provide us with valuable reference , help us timely adjust and optimize the teaching strategy, ensure the effective implementation of information-based teaching in nursing education, so as to improve the teaching quality and students' learning effect.

## 5. Conclusion

To sum up, the applied of information-based teaching in nursing education has significant advantages, which can effectively improve teaching quality and promote teaching reform. In order to give full play to the role of information-based teaching, it is suggested to strengthen the training of teachers' information-based teaching ability, improve the construction of school information-based infrastructure, and narrow the digital gap between students, so as to inject new vitality into the development of nursing education.

## References

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