## Analysis of the Influencing Factors of the Application Effect of Cloud Classroom in the 'General Theory of Surgery' Teaching of Higher Vocational Colleges

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Abstract: With the continuous development of China's education reform, new technologies such as "cloud classroom" have begun to be gradually applied to the field of education. It combines traditional teaching methods with the advantages of modern information technology, and can realize a combination of online and offline hybrid teaching. The application of the cloud classroom to the course of "General Theory of Surgery" can improve the teaching quality and teaching effect, make it easier for learners to grasp knowledge and promote the improvement of learning effect. Based on this, this paper mainly studies and analyzes the influencing factors of the application effect of cloud classroom in the teaching of "General Theory of Surgery", aiming to put forward relevant suggestions, so as to provide guidance and reference for practical teaching activities.

#### 1. Introduction

The teaching of "General Theory of Surgery" is a very important part of the learning process of students in vocational colleges, and it is also a discipline that combines theory with practice and has strong practical characteristics. However, at present, most colleges and universities still adopt the traditional mode of teacher teaching to carry out the teaching of "General Theory of Surgery", resulting in students' lack of initiative and enthusiasm, unable to effectively stimulate their interest in learning, and thus reducing the efficiency of classroom teaching. By introducing the cloud classroom into the teaching of "General Theory of Surgery" of higher vocational colleges, it will not only enable students to better understand the course content, but also help mobilize their subjective initiative and cultivate practical talents that meet the needs of society. Therefore, it is of certain practical significance to explore the feasibility of the application of cloud classroom in the teaching of "General Theory of Surgery" in vocational colleges.

### 2. Overview of "General Theory of Surgery"

"General Theory of Surgery" is a professional book that systematically explains the basic knowledge and skills of surgery, including the origin and development of surgery, the basic principles of surgery, the key technologies in operating room equipment and surgery, and the knowledge points in the fields of disease prevention, local anesthesia and nerve block, emphasizing the safety and effectiveness of surgery. The application of the cloud classroom in the teaching of "General Theory of Surgery" can effectively help students deeply understand the basic knowledge and skills of surgery through a large number of multimedia materials, case studies and simulated surgical operations, including real-time interaction between teachers and students, online Q&A, homework and quizzes and other interactive teaching methods, which effectively improves the efficiency and quality of teaching, and enables students to grasp the knowledge of surgery more deeply. In addition, the cloud classroom also provides a series of assessment, testing and assessment mechanisms, which can evaluate students' learning outcomes and provide targeted feedback through different forms of testing, so that students can have a more comprehensive understanding of their own learning and further improve their learning efficiency [1].

In short, "General Theory of Surgery" is one of the necessary surgical reference books for medical students of higher vocational colleges. The cloud classroom provides an efficient, convenient and practice-oriented online teaching environment to help students learn and master the basic knowledge and skills of surgery more deeply, and cultivate clinical practice ability on this basis, laying a solid foundation for them to continue their studies in the future.

# 3. The Analysis of the Influencing Factors of Cloud Classroom in the Teaching of "General Theory of Surgery"

### 3.1 The Degree of Matching between Teachers and Teaching Content

In the teaching of "General Theory of Surgery" of higher vocational colleges, the matching degree of teachers and teaching content is one of the important factors in the implementation of cloud classroom teaching. First of all, the teaching content of "General Theory of Surgery" should closely focus on the core concepts and knowledge points of General Theory of Surgery, and teachers need to adapt the traditional teaching content to the teaching platform of the cloud classroom, and then optimize and adjust it to meet the learning needs and teaching goals of students. In addition, teachers should be familiar with the use and management of cloud teaching platforms, and be proficient in using various teaching software and technology tools to achieve teaching goals. For example, it can use multimedia, video and other methods to show the actual surgical operation, or use the online interactive platform to set up questions and practice operations, etc., to improve students' learning effect [2].

### 3.2 Students' Technical Ability and Adaptability to Study Habits

In the teaching of "General Theory of Surgery" of higher vocational colleges, students' technical ability and adaptability to learning habits are one of the important factors affecting the effect of cloud classroom teaching. As an online education mode, cloud classroom teaching requires students to be able to operate various terminal devices and software, and be proficient in using network search, downloading relevant learning resources and other skills. Therefore, teachers should pay attention to the cultivation and training of pre-existing skills in cloud classroom teaching, and provide corresponding technical support for students. In addition, students should also develop good study habits, such as serious study and thinking about learning content, actively participating in online discussions, and completing homework on time. Only when students' technical abilities and learning habits are adapted to cloud classroom teaching can they maximize teaching effectiveness and realize cloud classroom teaching best practices.

# 3.3 The Stability and Perfection of Cloud Classroom Technology Equipment and Network Environment

In the teaching of "General Theory of Surgery" of higher vocational colleges, the stability and perfection of cloud classroom technology equipment and network environment directly affect the teaching effect and teaching experience. For teachers, teaching platforms and websites need to have stable performance and network to ensure that there are no unexpected interruptions and data loss during the teaching process, and avoid the problem of untimely or delayed information transmission between teachers and students. On the other hand, students should also have a good network environment and basic technological equipment, such as computers, tablets and smartphones. During the learning process, students need to maintain a stable network connection, as well as sufficient network bandwidth and device processing power. If there is a failure or instability in the teaching platform and network environment, teachers need to coordinate and deal with it in a timely manner, and provide corresponding technical support and assistance to students to better adapt to cloud classroom teaching.

### 3.4 The Feasibility of Curriculum Design and Teaching Implementation Plan

In the teaching process of "General Theory of Surgery" of higher vocational colleges, the feasibility of curriculum design and teaching implementation plan is an important factor affecting the effect of cloud classroom teaching. Teachers need to formulate feasible teaching plans and teaching activity content, forms, methods and means according to the characteristics of the curriculum and learning conditions, so as to maximize the advantages of cloud teaching. Such as PPT, video, audio, online interaction, etc., to improve students' understanding and memory of knowledge points, enhance the fun and interactivity of teaching. In addition, teachers should formulate targeted teaching strategies according to students' learning needs and abilities, and use diversified teaching resources, such as case analysis and practical operations, to cultivate students' practical ability and problem-solving ability, and ensure the feasibility of curriculum design and teaching implementation plan.

# 4. The Methods of Cloud Classroom in the Teaching of "General Theory of Surgery" of Higher Vocational Colleges

### 4.1 Design Curriculum Teaching Programs Suitable for Cloud Classrooms

For the cloud classroom teaching of "General Theory of Surgery" of higher vocational colleges, teachers need to formulate a curriculum teaching plan suitable for the cloud classroom. In the course design process, teachers should fully consider the characteristics of cloud classroom teaching, use video, audio, courseware and other teaching resources, design interactive teaching activities, and improve students' interest and participation in learning. First of all, teachers should formulate detailed teaching plans and teaching plans according to the subject content and the actual situation of students, gradually guide students to establish correct learning methods and develop good learning habits, let students become the main body of learning, give play to their learning ability and potential, and ensure the achievement of teaching goals and the improvement of teaching effects. Secondly, teachers should also carry out timely teaching reflection and summary, continuously improve and improve the quality and level of cloud classroom teaching, constantly improve and innovate teaching content and form, so that it meets the requirements of student development under the talent training mode of higher vocational education, and continuously meet the needs of society as the starting point and foothold, so as to achieve the best results in the actual application of the cloud classroom teaching mode.

### 4.2 Use Multimedia Technology to Enrich the form of Cloud Classroom Teaching

In order to better adapt to the characteristics of cloud classroom teaching, in the teaching of "General Theory of Surgery" of higher vocational colleges, teachers can use multimedia technology to enrich the forms of cloud classroom teaching, such as teaching videos, animations, pictures and audio, etc., to display more diversified teaching forms and content, and improve the vividness and intuitiveness of teaching cases. At the same time, interactive links such as question answering and case analysis are added to the classroom to improve students' interest and enthusiasm in learning, and reduce students' single understanding of specific knowledge content. In addition, using the advantages of multimedia, teachers can also record course videos in advance and apply them to teaching, lifting the time limit and location constraints of real-time teaching of teachers' courses, facilitating students to learn anytime and anywhere through the network, and maximizing the allocation and use of teaching resources. Therefore, in the cloud classroom, making full use of multimedia technology and innovating teaching methods can better promote the teaching effect and teaching quality, and meet the actual needs of students of the "General Theory of Surgery" of higher vocational colleges.

### 4.3 Strengthen the Combination of Cloud Classroom and Practical Teaching

Strengthening the combination of cloud classroom and practical teaching is an important countermeasure in the teaching of "General Theory of Surgery" of higher vocational colleges. In order to effectively improve students' practical ability and practical operation ability in cloud classroom teaching, teachers can use technical means to enhance the combination of cloud classroom and practical teaching, and provide students with richer learning resources and more practical opportunities. On the one hand, functions such as live video broadcast and real-time interaction can be set up in the cloud classroom to highlight the problems that need to be paid attention to in the practical operation of surgery, so that students can better understand the relevant theories. On the other hand, the specific practical teaching content of surgery can be closely combined with course teaching through online video live broadcast and other forms, so as to help students deeply master theoretical knowledge and improve the quality and level of teaching while practicing the operation. Therefore, in the teaching of "General Theory of Surgery" of higher vocational colleges, strengthening the combination of cloud classroom and practical teaching is an important step to realize the effective integration of knowledge transfer and practical teaching, which is of great significance for cultivating application-oriented talents with innovative consciousness [3].

### 4.4 Optimize Online Interaction and Evaluation Mechanisms

At present, cloud classroom teaching has become an indispensable part of higher vocational college education. In the implementation of cloud classroom teaching, the importance of optimizing online interaction and evaluation mechanisms has become increasingly prominent. For the teaching of "General Theory of Surgery" of higher vocational colleges, teachers can first set up a variety of interactive links in the cloud classroom, use various forms and ways to interact with students, and improve the activity and attractiveness of the classroom. Secondly, teachers should actively carry out online evaluation, and use a variety of evaluation tools, such as questionnaires and online assessments, to obtain students' grades and teaching feedback in a timely manner, so as to better guide the implementation of teaching and continuously optimize the quality and level of teaching. In addition, teachers can also encourage students to conduct online discussions, adopt group learning, forum interaction and other ways to enhance students' self-learning ability and teamwork ability, and at the same time use the evaluation mechanism to test students' learning effects, guide students' learning methods, and help them develop good habits, so as to achieve the purpose of "promoting learning

through evaluation".

#### **5. Conclusions**

In summary, as an emerging teaching mode, cloud classroom has gradually been applied to the teaching practice of vocational colleges. In the teaching of "General Theory of Surgery", the application of cloud classroom can improve teaching efficiency, reduce teaching costs, expand teaching scope, and promote communication between teachers and students, which is conducive to cultivating students' spirit of independent learning and cooperative inquiry, thereby improving students' ability to analyze and solve problems, and achieving the teaching purpose of "teacher-centered" to "student-centered". Therefore, we should actively conduct in-depth research on the influencing factors of cloud classroom in the teaching of "General Theory of Surgery" of higher vocational colleges, so as to better explore the potential of cloud classroom teaching and effectively improve the teaching quality and efficiency of "General Theory of Surgery".

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### References

[1] Song Chunxue, Zhang Peng, Zi Chunyan, Li Chunxia. (2021). Application of Virtual Simulation Technology Combined with Intelligent Vocational Education Cloud Classroom in Childbirth Nursing Practical Training Teaching [J]. Journal of Nursing, 36(23), 65-68.)

[2] Liu Jingqiu, Yang Nana, Yu Xianxiang. (2020). Application of Smart Vocational Education Cloud Classroom in Basic Teaching of Higher Vocational Clinical Laboratory [J]. Science and Technology Information, 18(24), 6-7+10.

[3] Che Xiaowen, Zhang Yi. (2020). Application of Hybrid Teaching Mode Based on Cloud Classroom in Surgical Nursing [J]. Health Professions Education, 38(02), 96-97.