Investigation into the Teaching Practice of Informatization Education Technology in Application Undergraduate Colleges

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Abstract – **With the continuous development of network technology and modern multimedia technology, information education technology has been widely used in teaching practice, providing vigorous vitality and broad prospects for the development of application-oriented undergraduate colleges. This paper first analyzes the problems of information education technology in teaching practice. Then, it clarifies the application advantages of information technology in education. Finally, it puts forward that application-oriented undergraduate colleges need to update their educational concepts in time, build high-quality teachers, and promote the application of information education technology in the teaching practice of application-oriented undergraduate colleges.**

Keywords – **Application, Educational Technology, Informatization.**

I. INTRODUCTION

The essential feature of educational informatization is the informatization of educational ideology, educational system, educational facilities, educational content, educational means and methods. The integration of information education technology and professional teaching in colleges and universities has become an indispensable auxiliary tool for talent training. In recent years, application-oriented universities have emerged as the times require. The main goal of application-oriented universities is to cultivate application-oriented talents who serve the economic and social development. The introduction of information education technology in the teaching practice of application-oriented undergraduate colleges is conducive to the creation of a new situation in education and further promote educational reform.

II. PROBLEMS IN THE TEACHING PRACTICE OF INFORMATIZATION EDUCATION TECHNOLOGY IN APPLIED UNDERGRADUATE COLLEGES

A. *Low Resource Allocation Efficiency*

The application of information education technology is to use various information technologies to reasonably allocate various teaching resources in schools and on the network. With the continuous optimization of the information education environment in recent years, various disciplines are mixed, and the construction of various platforms is dazzling. However, the content of various curriculum resources is repeated seriously, the quality is uneven, and there is a lack of scientific management planning, leading to teachers unable to make effective resource choices. Teachers are the first resource of education development and the key element to promote the application of information technology in education. At present, many young teachers directly enter the school to carry out teaching work after graduation from teaching and research universities. They lack practical experience and information education literacy. The application of educational technology only stays at the level of PPT teaching and playing relevant videos, resulting in a single teaching model that ultimately affects

the learning effect of students.

B. *Some Application-Oriented Undergraduate Universities do not Pay Enough Attention to Information Technology*

At this stage, some application-oriented undergraduate colleges and universities have not formed a generally consistent concept, and the understanding of information education technology is still superficial to a certain extent. Even though the concept has changed, the use of information technology in education is just empty talk due to the limitations of facilities, venues and other factors. It is embodied in two aspects. First, many colleges and universities have insufficient investment in hardware equipment and low level of software construction, resulting in insufficient development of hardware and software in practical teaching, which cannot meet the needs of teachers' classroom teaching. In addition, although some schools have sufficient new equipment and software, due to inadequate management and training, smart classrooms are idle and new software will not be used, which seriously hinders the rational use of information technology in education. Second, in the process of cultivating application-oriented talents, it is not only necessary to carry out perfect theoretical teaching in schools, but also need to carry out training in practical skills education. Therefore, it is particularly important to establish a practical training base that matches it. However, the existing training facilities are far from meeting the needs of teaching and learning practice.

III. APPLICATION ADVANTAGES OF INFORMATIZATION EDUCATION TECHNOLOGY IN APPLIED UNDERGRADUATE COLLEGES

In recent years, application-oriented undergraduate colleges have formed an information-based teaching mode in their teaching practice and built a variety of network teaching platforms. In the teaching reform, new teaching concepts such as online and offline hybrid teaching and flipped classroom are emphasized, and students are committed to releasing from the past indoctrination teaching and gradually becoming the makers and builders of learning.

(1) Integration of information technology and education and teaching to improve teaching quality.

In the information age with the full development of sensor technology, network technology and artificial intelligence technology, information education technology, as the link between theoretical knowledge and specific practice, promotes the comprehensive development and progress of education in the new era with strong operability and practicality. Build an interactive multimedia teaching environment, create classroom teaching activities related to teachers and students, stimulate students' interest in learning, and carry out teaching in the way of students' participation, experience and role deduction. Build a virtual simulation experiment platform relying on multimedia system, simulate a large-scale comprehensive experimental environment through human-computer interaction and network communication and other technical means, and show it in an interactive and immersive form. The students can use the virtual simulation system to observe the scene repeatedly. With the teacher's explanation, the teaching effect is better, and at the same time, the potential safety hazards in the visit practice are avoided.

(2) Reasonably optimize the allocation of teaching resources

Teaching resources generally include not only various software resources such as Courseware and Cases, but

also various hardware equipment such as network classrooms, multi-function speech classrooms, interactive electronic whiteboards, etc. Therefore, the teaching software and support tools presented to students need to be carefully screened and designed. The vivid and ingenious multimedia teaching and the assistance of multimedia courseware can create a relaxed and happy learning atmosphere and attract students' attention. When guiding students to complete the learning task, the teacher may not fully absorb the operating steps and analysis results demonstrated in class, so students may encounter some difficulties in completing the learning task. At this time, the teacher can make courseware and prepare corresponding multimedia materials in advance, choose the equipment with video recording function as the screen recording software, or use a professional recording and broadcasting classroom for shooting, and cooperate with the PPT playing or desktop operation demonstration during the recording process to present a complete explanation process. This diversified teaching form can undoubtedly improve the teaching quality, meet the students' learning and development needs, achieve the predetermined teaching goals, and make students' learning more convenient and effective.

IV. THE OPTIMIZATION PATH OF INFORMATION EDUCATION TECHNOLOGY IN THE TEACHING PRACTICE OF APPLICATION-ORIENTED UNDERGRADUATE UNIVERSITIES

A. *Using Multimedia Information Technology to Construct a Good Teaching Environment*

One is to use micro teaching methods. Because of its short time, prominent theme, strong pertinence and other characteristics, micro class is deeply loved by the majority of teachers and students, and has become a new teaching method that has emerged and been widely used in recent years. After years of updating and optimization, micro class has gradually become one of the important ways for teachers to build efficient classrooms. The learning motivation of students in application-oriented undergraduate colleges is relatively complex, and their professional motivation is also obvious. Students want to apply their knowledge to practice. Therefore, teachers can make some real cases in the development of society, life and science and technology into micro lesson videos, so that they can play the role of knowledge guidance. At the same time, teachers can make micro lessons for students to learn according to the operating difficulties and practical steps that students encounter in the classroom. In the relaxed and happy learning process, students can not only quickly understand and master the knowledge they need in their spare time, but also can repeatedly watch the operation and content they do not understand through the functions of fast forward, playback, download and storage, so as to reduce their frustration in learning and better improve their learning efficiency. However, just watching the video will make students feel isolated, and because the video is prepared in advance before the class, it cannot dynamically answer the temporary problems, so relying too much on micro classes will ignore or weaken the interaction and emotional communication between teachers and students, which is not conducive to playing the role of ideological and political teaching think tank. Therefore, we should combine micro class with classroom teaching, flexibly use it as an effective auxiliary means, so as to improve students' learning enthusiasm, initiative and classroom teaching effect.

The second is to use the teaching method of MOCC. In the context of "Internet plus" and universal learning, MOOC has gathered high-quality education curriculum resources from various colleges and universities. Through continuous development and promotion, MOOC has gradually formed its own characteristics and advantages. Through the arrangement and design of various famous teachers' courses, MOCC presents more professional and targeted learning resources for college students, and gives full play to its low-cost and efficient

teaching advantages. At the same time, it breaks through the time and space constraints, so that students' autonomous learning ability and cognitive ability can be improved. The platform mainly uses the network as the learning place, and the teaching videos are mostly edited in a short, long and fragmented way to segment a complete classroom teaching with concepts and propositions as the unit or with knowledge background and knowledge subject as the framework. Although shorter teaching videos are convenient for learners to quickly understand the course content, they will inevitably change the learning state of teachers and students in the same space, split the original organic links between the teaching content, and affect the continuity and integrity of the learning process. So the lack of offline classroom, an environment where time, space and learning content are integrated, whether the internalization process of students' knowledge can be completed remains to be discussed.

B. *Optimize the Allocation of Teaching Resources*

Under the influence of modern technology, many college teachers have abandoned the rigid and single teaching methods in the past, and gradually explored more efficient and suitable teaching methods through continuous improvement and self-improvement. At present, the core of the reform in the field of education is to return the classroom to the students and release the students from the traditional indoctrination teaching, so as to respect and highlight the students' dominant position in classroom learning. Teachers have changed from the only controller in the classroom to the guide, cooperator, puzzle solver and participant of students' learning. The application of virtual reality technology, simulation experiment technology and the construction of network remote platform can create a teaching environment with a good sense of experience for students to the maximum extent, provide education resource sharing services for application-oriented undergraduate colleges, achieve the coordinated distribution of education resources across regions, and improve the utilization efficiency of education resources.

C. *Strengthen the Construction of Teachers with both Ability and Strength*

The application-oriented undergraduate colleges should strengthen the construction of a contingent of teachers with both ability and strength, and can fully combine the needs of their own talent training to conduct teacher training and recruitment, so as to alleviate the plight of insufficient talent training resources. From the perspective of teachers, teachers need to strengthen their professional quality and consciously improve their ability to use information technology in education. First, emancipate the mind and set up the educational concept of using information technology to achieve innovation in teaching methods; second, regularly participate in skill training, and finally achieve the goal of skillfully using information technology in the process of practical teaching, simplifying the teaching process, and improving the teaching quality. As one of the two main bodies in teaching activities, teachers' roles, functions and abilities should also be changed accordingly. In traditional teaching, teachers are the authoritative disseminators of knowledge, playing the roles of knowledge possessor and imparter, textbook executor and teaching controller. Under this image, students' own perceptual experience and life knowledge are only in a subordinate and passive position in the teaching process, and cannot be treated as equal individuals. Therefore, teachers should adapt to the development of the social and technological environment, correctly transform the role view, and thus harvest many souls of independent thinking. The form of knowledge is diversified, open and uncertain, and teachers should play the role of facilitator of students' all-round development.

D. *Break the Shackles of Traditional Ideas and Update the Educational Concept in a Timely Manner*

First of all, colleges and universities need to change their educational concepts in a timely manner, fully understand the importance and urgency of introducing information education technology, conduct regular training on teachers' information education skills, hire experts and scholars in this field to carry out systematic training at the school, and go deep into each level from the theoretical level to the practical level, so that all teachers in the school can form consistent ideas, theories and actions. Secondly, increase the investment in necessary practical teaching links, such as gradually improving the necessary teaching facilities and equipment in practice to adapt to the promotion and application of information technology.

V. CONCLUSION

To sum up, the application of information education technology to practical teaching in undergraduate colleges has both advantages and disadvantages. If teachers rely too much on multimedia information technology for teaching, once the teaching facilities fail, they will not be able to carry out teaching normally. At the same time, it will lead to some students' weak autonomous learning ability and even numbness. Decentralized attention, supervision in the form of video and learning alone with a weak sense of atmosphere are all likely to cause online learning to become a mere formality without much practical significance. Therefore, in the course of teaching, teachers should explain some important knowledge points and concepts that need students to understand deeply, which can be emphasized through blackboard writing, and effective teaching can be achieved through interaction with students. We should treat information technology dialectically, and we should not rely on any technology, so that information technology and traditional education can complement each other, and achieve the goal of improving teaching effect.

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