Exploration of Deep Integration of Information Technology and Education and Teaching in Colleges and Universities

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Abstract: With the widespread use of information technology, education and teaching are constantly optimizing education and teaching. The effective combination of information technology and education and teaching can not only enhance students' learning initiative, but also improve the quality of education and teaching. During the integration of information technology and education and teaching at this stage, there are still some problems. It is necessary to investigate and solve the problems, and use effective methods to improve the effectiveness of integration. Based on this, this paper starts from the shortcomings of the integration of information technology and education and teaching in colleges and universities, and puts forward corresponding solutions, aiming to provide reference for the research of relevant personnel in the future.

Keywords: Higher education; Information technology; Education and teaching

Introduction

Under the dual pressure of education system reform and information technology development, education and teaching in colleges and universities have been reformed and information technology and education and teaching have been integrated. Information-based teaching mode has the characteristics of flexibility and can provide corresponding teaching resources according to the needs of the subject. Therefore, college teachers should pay attention to the rationality and scientificity of teaching method design in the process of deep integration, so that students can continue to internalize knowledge under the blessing of information technology, thus improving their learning ability.

1. The Shortcomings of the Integration of Information Technology and Education and Teaching in Colleges and Universities

1.1 The fit between education and teaching methods and students is low.

Under the background of education reform, there are many kinds of teaching methods in colleges and universities. Some college teachers cannot control the teaching content because they do not have clear and specific teaching purposes. Therefore, the teaching methods used are chaotic, resulting in poor teaching effects, thus affecting students' understanding of professional knowledge [1]. At present, under the background of educational informatization, more messy teaching modes have begun to flood classroom teaching, but there is a low degree of fit with the development of students themselves, and teachers need to choose according to the actual situation of students themselves and previous teaching experience [2]. However, students' choice of learning mode should not be half-hearted. They should make choices according to their own actual needs. After that, they must always carry it out to the end. For students, only by perseverance can they really gain and knowledge.

1.2 Indiscriminate Application and Learning of Knowledge

For the relatively mature environment of information technology development, more and more people begin to get used to learning on the Internet without distinction, involving knowledge points in different fields, and finally lead to nothing [3]. In actual teaching, only by focusing on mastering one subject, learning intently, learning thoroughly, and mastering it comprehensively, can we focus on other knowledge. Due to the wide application of network information technology, different knowledge and content

are flooded in the network. When students study in a complicated knowledge situation, they must have corresponding screening skills, choose the correct knowledge points to master, and cultivate corresponding aspects Academic skills. However, the biggest disadvantage of information technology is the complexity of knowledge. For students who have just entered colleges and universities, in the actual learning process, there is usually a phenomenon of undifferentiated learning, which eventually leads to the complexity of students' learning knowledge. The overall learning ability and learning efficiency continue to decline. As a guide for students, teachers should use push to learn to reduce wrong cognition and improve learning efficiency.

2. Research on the Optimization of Deep Integration of Information Technology and Education and Teaching in Universities

2.1 Sharing Educational Resources

For some colleges and universities, although information technology and education can be effectively combined at this stage, and some key application software are designed and developed, and more important teaching practice topics and experimental projects are formed, these learning resources are generally used in key schools due to cost problems and difficulty in mastering. Therefore, for general schools, in the overall teaching process, the use of information education is weak . Therefore, in order to ensure that all colleges and universities can get advanced knowledge teaching, with the support of information technology, some schools will make the actual operation of experimental technology into a video form, and broadcast it in the classroom for students to watch, as far as possible The sharing of teaching resources has made important efforts for the development of college education in a certain sense. As far as some colleges and universities are concerned, after the development and application of various application software, students can complete independent learning through relevant application software. Therefore, in a certain sense, it promotes the common development of students and strengthens the cooperative relationship between schools. In ordinary college education, through the sharing of teaching resources, the number of corresponding resources in schools can be effectively improved, thus reducing the shortage of corresponding resources in ordinary colleges and universities, not only reducing the cost of investment in teaching, but also not affecting students' mastery and learning of corresponding professional knowledge.

2.2 Use Information Technology to Improve Knowledge Fit

Under the influence of traditional education and teaching methods, in the teaching of some colleges and universities, teachers will have theoretical knowledge divorced from reality even if they use information technology . From the perspective of curriculum teaching, education and teaching in colleges and universities are different from the form of general compulsory education. Schools need to combine theoretical knowledge with practice as much as possible in the actual teaching process to narrow the gap between theoretical knowledge and students' reality. Therefore, in the actual teaching process, teachers can use information technology to search for online teaching resources to help students master some relevant knowledge. Through watching the simulated operational experiments, students can be more clear on the network terminal. Clear and clear grasp of what you want to know. At the same time, using information technology, teachers can improve the efficiency of quality teaching, and guide students to find relevant knowledge points that are consistent with their own fields in a wide range of information materials, and to master them in a targeted manner, which can improve students' learning ability, And in the process of hands-on practice, you can personally experience the process of inquiry, thereby reducing the distance between knowledge points. In the process of practicing, some students can gradually master some things that they cannot learn on campus according to the knowledge on the Internet, so as to meet the learning needs of students. In college teaching, not only the professional knowledge in the teaching materials, students must also set foot in new fields, not only to learn and use the professional knowledge in the teaching materials, but also to master practical skills related to professional knowledge. In the campus, try to increase your ability to master basic knowledge. Through information technology, coupled with more comprehensive and extensive network technology, students can dabble in more novel knowledge and cultivate their comprehensive quality.

2.3 Use of Information Technology to Strengthen Teaching Management

In higher education, it is necessary to improve the professional information management of knowledge, and the use of information technology can be more convenient to investigate and master the status of each student, and use the method of big data analysis system to integrate teaching knowledge to make it more Scientific. Because college education is different from ordinary classroom teaching, it is difficult for teachers to grasp the situation of students' learning knowledge. At this time, using modern information technology tools, they can judge the students' knowledge points according to the state of students' class, the completion of homework after class, and the results of timely examinations. Therefore, during the teaching period, teachers can use information technology to promote students to explore and organize knowledge while mastering the learning status of students, and then carry out teaching in accordance with their

aptitude and targeted teaching management to strengthen the quality of students' learning. At the same time, with the development of higher education, teaching gradually tends to be diversified. At this time, teachers' teaching mode and teaching methods are constantly changing. In the process of teaching, in order to better strengthen students' ability to master and understand knowledge, teachers can use education informatization as a teaching method, and establish a corresponding information-based teaching platform, and use big data analysis systems to enrich students' learning materials. For example, when teaching, teachers use the information-based teaching platform to distribute online education and teaching materials, and conduct in-class tests and teaching evaluations. After using this teaching method, students can review and review their own knowledge that is relatively low. Practice, in order to deepen students' actual learning effectiveness, enhance students' cognition of knowledge, and ultimately achieve the goal of strengthening students' personal literacy.

Concluding remarks

All in all, in the process of college education, the integration of information technology and education by teachers is not only the inevitable trend of educational development under the background of the information age, but also the need of student development in the new era. In the process of the integration of information technology and education in colleges and universities, teachers should take students as the main body, continuously optimize the way of education and teaching, and flexibly use information technology to guide teaching according to the needs of students, so that students can better understand knowledge and learn knowledge in the teaching environment created by information technology, and lay the foundation for future development.

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