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Discussion on Mixed Teaching of Mathematics Courses in Applied Universities

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Abstract: *With the continuous development of the times, the society's requirements for talents have also increased significantly. Traditional classroom teaching has a certain unity and does not meet the needs of the development of the times. Therefore, a hybrid teaching mode combining multiple methods has begun to appear In teaching. It is not only relatively rich in curriculum resources and relatively flexible in teaching methods, but also has a certain pertinence and enlightenment. Therefore, it needs to be applied in college mathematics courses. This paper conducts a detailed research on the mixed teaching of mathematics courses in applied universities.*

Keywords: *applied university; university mathematics; mixed teaching*

1. Introduction

Due to the invasion of large-scale curriculum resources and open teaching concepts, certain reforms have taken place in teaching methods, from the original single classroom teaching to a mixed teaching method. This article takes university mathematics courses as an example to apply university mathematics detailed research on mixed teaching methods. This research has theoretical significance for enriching the knowledge of mixed teaching in university mathematics courses, and has practical guiding significance for guiding the application of mixed teaching methods in applied university mathematics courses.

2. The inevitability of the application of mixed teaching methods in college mathematics courses

Due to the development and popularization of Internet technology, it can be integrated with various fields. The hybrid teaching method is the product of the combination of Internet technology and educational methods, and it is also the main trend of future development. The mixed teaching method can break the limitations of the traditional method. The traditional method is mainly teaching, and students have relatively little time for independent thinking. Moreover, the content of the lecture is mainly textbooks, which is relatively simple, and the mixed teaching method is used This phenomenon can be improved. In this way, the corresponding video teaching is added, and the mathematics-related knowledge is displayed in the form of video, which can make the knowledge more concrete and visualized. At the same time, students can make or consult materials by themselves, which can significantly increase the opportunities for students to think independently. In addition, the content can be extended, and related content or models can be introduced into the teaching, which can enrich the content of the teaching, thereby making the students' knowledge structure more perfect, and thus in line with the needs of the development of the times.

3. Measures for mixed teaching of mathematics courses in applied universities

3.1 Combining with the school itself to build an integrated mixed teaching model

Application-oriented colleges and universities need to improve their own classroom teaching based on their own talent training plan and adapt to school conditions. In order to build a high-quality integrated mixed teaching model, it is necessary to mobilize the enthusiasm and creativity of all people and make them form an effective synergy. The school must not only provide good hardware facilities, but also fully support the construction of the integration process. First of all, it is necessary to build a mature, stable and influential integrated platform. From the perspective of universities, the integrated hybrid model can not only enhance the richness of curriculum resources, but also effectively share its

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own teaching resources. Secondly. In the process of creating an integrated curriculum, the school not only needs to provide the necessary hardware facilities, such as a multi-functional multimedia classroom, to ensure the smooth production of the integration process, but also need to provide stable intra-school support, which can make the integration The course presents the process at the student's learning end. Finally, the school can construct corresponding reform projects and effectively guide teachers so that they can actively participate in the integrated construction. In terms of institutions, it is necessary to organize a teaching team with rich teaching experience and a reasonable structure, which should mainly include teaching designers with rich experience and advanced concepts, lecture teachers with strong language expression, and teachers with strong patience to answer questions. , Course maintenance personnel, etc., which can effectively enhance the richness of the student's learning experience. At the same time, everyone in the team needs to have a strong sense of responsibility and team awareness, not only need to improve and strengthen the part of their responsibility, but also need to communicate and communicate with others as necessary to complete the course as a whole Sex and consistency are effectively guaranteed.

3.2 Mixed teaching of online course teaching and traditional teaching

To complete an efficient hybrid curriculum teaching model through a combination of online and offline methods, it is necessary to make full use of the advantages of online curriculum teaching and traditional classroom teaching, and effectively complement each other. At the same time, it is necessary to vigorously promote information technology and artificial intelligence, so that modern educational technology can be fully and deeply integrated with teaching. In traditional classroom teaching, teachers play a leading role and students are the main body of teaching. The model is a teaching activity carried out at a fixed time and place under the guidance of a fixed teacher. The teaching activities need to comply with the syllabus and have obvious planning. The teaching class of this model is planned and systematic, which plays a positive role in promoting the comprehensiveness of students' mathematics knowledge learning. In addition, teachers can use diversified teaching methods to carry out teaching, such as questioning, sample questions, enlightenment, etc., which can guide and inspire students' thinking, so that they can closely follow the teacher's thinking, so that their thinking ability is obvious Improvement. Classroom teaching plays an important role in constructing a framework of mathematical knowledge and cultivating students' mathematical thinking. In the process of teaching, teachers will use certain body language and facial expressions, which can strengthen the emotional communication between teachers and students, so that students' enthusiasm can be effectively stimulated and mobilized, so that students can have a correct view of learning. form. However, teaching methods and class hours can limit classroom teaching, not only making mathematical concepts and theories only simple expressions, but also making the process of concept formation lack a visual demonstration, and simple descriptions of related concepts and rules have become the main methods of classroom teaching. This not only makes students lack a correct understanding of related mathematical concepts, but also fails to effectively understand its internal logic. In addition, as far as college mathematics classroom teaching is concerned, large-class teaching is the main mode, and students have a certain degree of differentiation in majors, which makes a certain disconnection between the teaching content and professional courses. Therefore, when learning mathematics At that time, due to lack of professional application background, mathematics learning prevention lacked flexibility, and the ability to use mathematical methods to solve professional problems could not be effectively improved.

3.3 Building a hybrid classroom between physical courses and MOOCs

Physical courses and MOOC teaching belong to two different types. Therefore, combining the two to develop mixed teaching is bound to be a brand new attempt. The application of a mixed teaching model of entity and MOOC in college mathematics classrooms requires positioning its functions and applying scientific fusion methods to avoid its disadvantages and promote its advantages, so as to present the greatest teaching effect. Combining the two, formulating a hybrid teaching model requires adherence to certain principles: college students are initially exposed to advanced mathematics, and their abilities are relatively weak at the stage of mathematics adaptation. At this time, they need to strengthen the guidance of physical courses and give more basic knowledge explanations and enhancements to ensure their normal development of studies. With the deepening of learning, we can carry out more self-inquiry learning through MOOCs. To carry out mathematics teaching in colleges and universities in this mixed teaching mode, we should focus on traditional physical classrooms and MOOCs as supplements. They complement and perfect each other.

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3.4 Strengthen teachers' hybrid teaching concept

In the teaching of university mathematics courses, it is necessary to apply the mixed teaching mode, which puts forward higher requirements for teachers, and they need to have an informatized vision. Therefore, teachers need to be effectively trained. The content of the training is mainly based on the teaching content of mixed mathematics, so that teachers' information application ability can be improved, and the mixed teaching mode can be applied in university mathematics teaching. Teachers can divide students into different classes on the basis of students' learning ability and professional needs, and make certain adjustments and optimizations to the content, so that teaching strategies tailored to local conditions can be realized. For example, for students with relatively weak foundations and lack of logical thinking, teachers can play down the theoretical derivation to a certain extent, and appropriately strengthen the basic theory and application background, so that the foundation of this part of the students can be firmly established. The advantages of the hybrid program are mainly reflected in the effective elimination of teaching methods and class time restrictions. It can not only use multimedia tools such as videos and animations, so that abstract problems in mathematics can be vividly displayed, but also can enhance the enthusiasm of students , So that students' abilities have been significantly improved. At the same time, important mathematical theories need to be promoted so that students can fully understand the knowledge, so that the knowledge can be effectively transferred. Relevant cases can also be introduced into teaching, so that students can apply knowledge in practice, so that they can have an effective experience of the value of mathematics, and the initiative of students in learning mathematics will be significantly improved. Teachers can divide students into different classes on the basis of students' learning ability and professional needs, and make certain adjustments and optimizations to the content, so that teaching strategies tailored to local conditions can be realized. For example, for students with relatively weak foundations and lack of logical thinking, teachers can play down the theoretical derivation to a certain extent, and appropriately strengthen the basic theory and application background, so that the foundation of this part of the students can be firmly established. For students preparing for the postgraduate entrance examination, it is necessary to effectively expand the depth of mathematics so that their thinking and logical ability can be effectively exercised. In a word, when constructing the online and offline hybrid curriculum teaching mode, the function of curriculum teaching is to help students construct mathematical knowledge structure, so that they can master mathematical thinking methods and form correct mathematical concepts, so as to enable students The self-study ability of mathematics can be formed, so it is very important to form and construct a mixed teaching concept for teachers.

4. Conclusion

Through the discussion of this article, it can be seen that the mixed teaching of mathematics courses in applied colleges and universities is of great significance. It can not only effectively improve the knowledge structure of students, but also improve the autonomy of students. Therefore, it needs to be continuously In-depth research, so that its role can be fully highlighted, and then provide a guarantee for the healthy development of the education industry.

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