

Informatization Teaching Method of Mathematics in Higher Vocational Education under Modern Education Technology

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Abstract: In recent years, with the rapid development of the Internet and informatization technology, informatization technology has been widely used in the field of education, affecting educational concepts, educational models and educational methods in modern education. In the context of modern educational technology, schools, teachers, parents, and students have profoundly realized the benefits of informatization technology for education. The new age of education methods based on informatization technology has gradually become the mainstream, and has been widely recognized and respected in the entire education field. After decades of rapid development, especially under the promotion of informatization technology, China's higher vocational colleges have achieved great development. The teaching of mathematics in higher vocational colleges has also generally introduced informatization teaching. However, according to the actual situation, there are still many problems in the application of informatization technology in mathematics teaching in higher vocational colleges. This paper takes the information teaching of higher vocational mathematics as the research object, analyzes its existing problems, and also gives practical solutions, which can effectively provide some guidance for improving the quality of higher vocational mathematics education.

1. Introduction

Due to the rapid development of economy and technology, all walks of life in China have made great progress and development. Among them, the rapid advancement of Internet technology and informatization technology has penetrated into all aspects of our lives, greatly changing our lives and bringing us many unexpected conveniences. In this context, informatization technology has been widely used in many industries, and has been widely recognized by many people. The same is true in the field of education. Informatization technology has thoroughly penetrated the entire educational process and profoundly affected the concepts, models and methods of modern education. According to the feedback from teachers and students, the comprehensive coverage of informatization technology has brought great convenience to their teaching and learning. As one of the two major talent training systems in China, higher vocational education shoulders the heavy responsibility of delivering high-quality professional applied talents to the society. Higher

vocational colleges have gained great development space in recent years. Due to national attention, social support, and a large amount of resources are flowing into higher vocational colleges, it has laid a solid foundation for the informatization reform of higher vocational colleges. At present, in higher vocational colleges, informatization teaching has become an efficient teaching method widely used in various professions. Although informatization teaching has been widely used, there are still many problems. This paper takes the teaching of higher vocational mathematics as the research object, analyzes the current situation of informatization teaching in higher vocational mathematics, clarifies the problems existing in the current informatization teaching of higher vocational mathematics, and gives some practical suggestions for improvement. It provides a certain reference for the subsequent development of higher vocational mathematics informatization teaching.

2. The Significance of Informatization Teaching in Higher Vocational Mathematics

The reason why mathematics teaching in higher vocational colleges should introduce informationized teaching is mainly because informatization teaching can bring great benefits to mathematics teaching in higher vocational colleges. First, as we know, computer technology and Internet technology are the hottest areas of development in the current society. From the national strategy to the daily life, we are constantly feeling the convenience brought by informatization technology. All industries are actively integrating informatization technology with various industries according to national policies and market rules. Therefore, the development of informatization teaching in higher vocational mathematics is in line with the country's call and technology trends. Secondly, informatization technology has become the most popular research field at present, because as a tool, it can bring great improvement to various industries. In the field of education, the introduction of informatization teaching can not only enhance students' interest in learning through its vivid display means, but also use its multiple and efficient implementation methods to greatly improve the teaching quality of teachers and the learning efficiency of students. Therefore, the introduction of informatization technology in the teaching of higher vocational mathematics can effectively improve the teaching quality of teachers and the enthusiasm and learning efficiency of students. In summary, the significance of informatization in higher vocational mathematics teaching is extraordinary.

3. Problems in current informatization teaching of higher vocational mathematics

3.1 The more complicated situation of students in higher vocational colleges

First of all, China's higher education has carried out large-scale enrollment in recent decades. The same is true in higher vocational education. The large number of enrollment expansion in higher vocational colleges has led to a surge in students. The expansion of enrollment will inevitably lead to a lower threshold for admission. In addition, in recent years, higher vocational colleges have also opened up channels for independent enrollment. This leads to the fact that in a higher vocational college, not only the students have a large base, but also the types of students are complex, both through independent enrollment, through the college entrance examination, and some secondary schools and other colleges. In this case, there is bound to be a weak learning foundation for students, and learning attitudes, learning abilities, and ability to accept are also uneven^[1]. This situation has increased the difficulty of informatization teaching in higher vocational mathematics.

3.2 The teacher of higher vocational mathematics cannot adapt to the informatization teaching

Another problem of mathematics informatization teaching in higher vocational colleges is that teachers' ideas and abilities cannot adapt to informatization teaching^[2]. What we must admit is that as one of the two major higher education systems, higher vocational education has a certain gap compared with ordinary higher education. This gap also leads to that the overall level of teachers in higher vocational colleges are not as good as that of ordinary colleges and universities. Many teachers in higher vocational colleges have the characteristics of older and poor teaching ability. Many teachers don't know much about emerging technologies such as the Internet and informatization technology, and they don't know how to use informatization technology to teach. Even some older vocational teachers have certain misunderstandings and prejudices about informatization technology, and they have certain contradictions to modern informatization technology. There is no awareness or concept of applying informatization teaching for them. Therefore, a major obstacle to the development of informatization technology in higher vocational colleges is that many teachers do not have the concept of informatization technology, cannot meet the requirements of informatization teaching, and do not have the concept of informatization teaching.

3.3 Traditional teaching mode does not match informatization teaching

Under the background of the rapid transformation of new educational concepts and the rapid renewal of new educational technologies, many higher vocational colleges still adopt traditional teaching models^[3]. In terms of philosophy, many teachers only know the unilateral infusion of knowledge, which is too self-centered. The teacher thinks that what to learn, what should focus on, and what to learn repeatedly, does not realize the subjective position of the students in the study. This leads to the teacher's teaching content and the progress of teaching is seriously out of line with the students, and the efficiency of student learning is low. In the way of teaching, many teachers only know about the blackboard and the explanation, paying attention to the explanation of the specific theoretical knowledge, tiling straight, the teaching process is single, and the teaching content is esoteric and boring. It is difficult for students to understand what the teacher is teaching, and that the study of professional courses is both boring and difficult to understand. The above two phenomena are contrary to the fragmented and figurative teaching philosophy of informatization teaching. This kind of rigid teaching method will inevitably lead to students not being interested in learning and unable to stimulate students' self-learning emotions.

3.4 Insufficient equipment for information teaching or the inability to properly apply equipment

Finally, one of the problems in the informatization teaching of higher vocational mathematics is the lack of informatization equipment or the lack of adequate application of equipment. The lack of informatization equipment is common in many higher vocational colleges, especially in ordinary higher vocational colleges with serious enrollment or poor teaching quality. First of all, the enrollment of higher vocational colleges, a large number of students enter the school at the same time, and the school's teaching facilities and resources cannot be increased in time due to resources, procurement time and other issues, which will inevitably lead to the lack of teaching facilities. Especially for informatization technology, many professional informatization equipment costs are higher, which further stresses the economic pressure of the school, and the lack of informatization equipment is more serious. In addition, for the application of informatization equipment, many

informatization equipment involves professional use and high requirements. Many teachers and students are unable to take full advantage of the functions of informatization devices, and even basic functional applications are difficult. Therefore, in the informatization equipment, the informatization teaching of higher vocational mathematics has the problems of insufficient equipment and insufficient application.

4. Paths to carry out informatization teaching of higher vocational mathematics based on modern educational technology

4.1 Training teachers to strengthen teachers' recognition of informatization teaching

In order to improve the level of information application of higher vocational mathematics, we must strengthen the training of teachers firstly. Teachers are the key leaders in the teaching activities of higher vocational mathematics and the specific implementers of the teaching programs. Therefore, if teachers do not pay enough attention to informatization teaching and do not have enough informatization teaching methods, then more informatization equipment is useless. Therefore, it is necessary to strengthen guidance and training for teachers. First of all, it is necessary for teachers to establish the concept of informatization teaching and clearly understand the importance of informatization teaching for higher vocational mathematics teaching. In order for teachers to recognize informatization teaching from the ideological and psychological aspects, they will truly carry out informatization teaching of higher vocational mathematics and continue to improve the level of informatization teaching. Secondly, the society and schools should carry out more technical training related to informatization teaching, so that teachers can fully grasp the skills needed for informatization teaching. Only teachers can firmly grasp the technology of informatization teaching, and they can make full use of informatization equipment and high-quality informatization teaching of higher vocational mathematics.

4.2 Strengthen the transformation of teaching content and mode, and match with informatization teaching

At present, many higher vocational colleges still focus on the traditional teaching mode. This phenomenon has obvious contradictions with informatization teaching. Therefore, in order to effectively carry out informatization teaching of higher vocational mathematics, it is necessary to change the traditional teaching mode, integrate teaching resources, and introduce new informatization teaching methods^[4]. In fact, the scope of informatization teaching is very wide. The simplest and most typical informatization teaching is to use multimedia technology to carry out teaching activities. Teachers should make full use of multimedia technology to collect and integrate teaching resources in an all-round way, transforming the boring and profound mathematical language into vivid images, audio or video, so that students can intuitively feel the charm of mathematics. In addition, teachers can also use various informatization communication platforms to break the space constraints of classrooms in higher vocational mathematics teaching, and use various forms such as teaching videos, knowledge points, and theoretical columns to carry out mathematics teaching on various platforms, broaden the horizons of students and let students deeply understand the diversity of mathematics.

4.3 Creating a scientific informatization evaluation system

Finally, after the informatization teaching of higher vocational mathematics, it is necessary to carry out a scientific and comprehensive evaluation of the students' learning outcomes and the

teachers' teaching effects through the matching informatization evaluation system, and provide accurate feedback on the quality of the informatized teaching, which will help the continuous improvement of informatization teaching^[5]. The traditional evaluation system obviously does not match the informatization teaching. If the evaluation system is not updated, the informatization teaching will not last long and will eventually be transformed into another form of exam-oriented education. Therefore, we must establish a scientific and comprehensive informatization evaluation system to summarize the teaching quality of teachers, the basic knowledge of students, learning ability, learning attitude and other information, and conduct a comprehensive scientific evaluation of students and teachers through the multiple dimensions of knowledge, ability and literacy. In this way, we can more accurately evaluate the informatization teaching of higher vocational mathematics, and provide reference for better informatization teaching.

5. Conclusions

In the field of modern education, informatization technology has become a widely used teaching method. In order to effectively improve the quality of teaching, higher vocational colleges must pay attention to the application of informatization technology in teaching. In the teaching of higher vocational mathematics, there are various problems in informatization teaching. Schools and teachers should establish the concept of informatization teaching; integrate teaching resources, improve teaching mode; establish a matching information evaluation system to strengthen the application of informatization teaching in higher vocational mathematics, and improve the teaching quality and effect of higher vocational mathematics.

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