

Integration and Application of Mathematics Network Course Resources

Yazi Wang*, Hongjie Li

Zhoukou Normal University, Zhoukou 466001, Henan, China

*wangyazi2800@163.com

Abstract

With the continuous progress of science and technology and the rapid development of modern education, China has integrated and applied the network course with the originally boring, complex and logical mathematics discipline. Because mathematics is a flexible subject, students' learning efficiency of mathematics is generally poor compared with other liberal arts, and network curriculum resources can just solve this situation. At the same time, this method also provides a more effective channel for the modernization of mathematics teaching. This paper takes mathematics network resources as the research content, deeply analyzes the integration and application of this teaching method.

Keywords

Network Resources; Mathematics; Modern Education.

1. Introduction

Due to the continuous development of society, the demand for talents in China's market is also increasing. In order to meet this situation, China will expand the enrollment scale. But throughout the current social situation, the quality of our students is still in the middle and lower level, and the difference of knowledge level between students is still gradually expanding. Therefore, the traditional teaching methods can no longer match the requirements of contemporary mathematics teaching, schools and teachers should continue to reform the teaching mode. Among them, the good development of network curriculum resources can carry out hierarchical teaching through the learning differences of students, and further improve the teaching quality of teachers on the basis of abiding by the principle of student-oriented and individualized teaching, so as to cultivate high-quality talents.

2. The Advantages of Establishing Network Course Resources in Mathematics Teaching

2.1. It Can Stimulate Students' Interest in Learning

Mathematics is an extremely boring subject. If students do not lay a good foundation in primary school and junior high school, there will be a lot of difficulties in the future mathematics learning, which will lead to the rapid decline of students' enthusiasm for mathematics, and the result of a sharp decline in performance is not difficult to predict. The mathematics network course is an effective way to solve this problem, because it has a strong novelty and interest, at the same time, it can fully attract students' attention and increase students' interest in mathematics learning. Therefore, teachers should learn to use interesting multimedia sound and pictures in the classroom.

2.2. It is Helpful for Teachers to Show Their Knowledge

At present, China pays more attention to the all-round development of students. When setting teaching objectives, teachers should not only impart basic textbook knowledge to students, but also pay attention to the cultivation of students' thinking process when solving problems, and impart correct feelings and values, knowledge and ability, as well as the process and method of thinking. Among them, the most important is the process and method of thinking. Network course resources show students' learning content very intuitively, so that students can clearly see the process from abstract to concrete, from static to dynamic. Through concise and vivid explanation, students can understand the concept and derivation process of mathematical formula more clearly. Therefore, network curriculum resources not only help teachers, but also improve students' learning style, let them explore independently.

2.3. Improve Teaching Efficiency and Reduce Teaching Difficulty

With the continuous improvement of China's education, network curriculum resources provide a lot of high-quality and convenient teaching content and teaching methods for mathematics teaching. At the same time, more and more teachers and schools actively use this method. Network course resources can simplify the boring mathematics concepts, optimize the classroom mode, create a relaxed and interesting teaching atmosphere, reduce the difficulty of students' learning, and improve the quality of students. In the process of mathematics teaching, the main teaching content of teachers is to explain mathematical theory and calculate test questions. If appropriate network curriculum resources are used, not only can the theory demonstration process become clear, but also save a lot of teaching time, so as to improve the teaching efficiency.

3. The Ways to Construct Network Course Resources

Due to the rapid development of information technology, the means of education in China are constantly improving. In modern mathematics teaching, the network platform is a good medium, through which the construction of mathematics teaching courses can promote students' independent choice of learning, timely feedback their learning situation, and realize intelligent teaching by using network teaching resources, so as to improve students' learning efficiency and teachers' teaching efficiency. Among them, the main ways to construct network curriculum resources are as follows:

3.1. On the Basis of Following the Mathematics Curriculum Standard, The Network Curriculum is Developed

When setting teaching objectives, teachers can carry out hierarchical teaching according to students' learning differences and build a network platform to improve teachers' teaching efficiency. According to the mathematics syllabus issued by our country, teachers should divide the teaching content into several teaching modules, and develop the teaching text, teaching courseware and teaching video database according to the teaching content of each module. This method is not only convenient for mathematics teachers to extract teaching materials in the teaching process, but also helpful for teachers to summarize students' feedback problems, so as to form data Library, let students solve problems in the way of independent communication.

3.2. According to the Needs of Hierarchical Teaching, The Teaching Content is Designed

If teachers want to implement hierarchical teaching well, they should fully meet the needs of students, establish teaching objectives, design all aspects of the teaching process, including the content before the beginning of the course, students' feedback and practice, teachers' deepening and expanding content and students' learning experience. The specific method is:

"one point and many questions" teaching, which can be divided into several groups according to the students' learning differences, and design different problems according to the learning situation of each group. The other is "one question with many questions", in which teachers design the same exercise into different questions. In this way, the way of designing problems for the teaching content can not only well cover the mathematical knowledge and after class exercises, but also check and supervise the students' learning status at any time.

3.3. Combined with the Learning Objectives of Students, The Way of Group Learning

In the process of teaching, teachers should urge students to choose a kind of learning method according to their own learning basis and learning objectives, and let students choose a unit or section of learning level independently. At the same time, students can freely join the learning group in the learning process, which can not only complete the learning task in time, but also study independently without the supervision of teachers. In addition, groups can cooperate with each other to complete the tasks assigned by teachers. In this process, if some students have questions about the teaching content or assignment, they can answer each other in the group, so as to promote the friendly relationship between students.

3.4. Carry out Multiple Evaluation to Cultivate Students' Enterprising Spirit

The network platform generally adopts the integral system for the evaluation of students' learning achievements. The rational score ranking and perceptual text evaluation can stimulate students' interest in learning. At the same time, the network platform can take teachers' objective evaluation of students' learning results and the developmental evaluation of students' learning attitude as a certain performance basis, so as to calculate students' total performance. This kind of multiple evaluation can not only enhance students' learning consciousness, but also gradually cultivate students' self-improvement, which is conducive to students' future learning development.

4. The Application of Network Course Resources in Mathematics Teaching

4.1. Use Search Tools to Obtain Online Course Resources

In today's mathematics teaching, mathematics teachers generally search for online course resources through 360, Baidu, Google and other search engines. This way can provide convenience for teachers in teaching methods and network curriculum resources. For example, when teachers teach the calculation of equations, the key and difficult point is to let students understand and really experience the calculation process and results of equations, that is to say, let students understand how the results are obtained, and let them practice in person. Therefore, when teachers encounter the above problems, they can directly show the calculation process to students through this method, so that they can master the knowledge points smoothly.

4.2. Establish Subject Websites to Enrich Online Course Resources

With the reform and innovation of China's education, the establishment of subject websites has become an effective way for students to communicate and integrate teachers' resources. Teachers can communicate with students through the subject website not only to make their relationship closer, but also to make teachers no longer limited by the limited time in the classroom. In addition, students don't have to care about the time and place to ask questions to the teacher. The subject website can make students ask questions to the teacher at any time. At the same time, teachers can also upload some learning materials on the website. Students can use these materials to increase their knowledge reserves, cultivate mathematical thinking and enrich mathematical resources.

4.3. Create Teachers' Blogs and Expand Online Course Resources

In addition to wechat, QQ and microblog, there is also an important platform blog. Blog is known as the personal "reader's Digest" in the network era, and it is also a website frequently used by contemporary mathematics teachers in the process of mathematics teaching. In this website, excellent teachers will upload their excellent teaching experience and teaching content to the website to provide reference for some teachers who lack experience or face teaching difficulties. In the process of mutual circulation of teaching resources, teachers can obtain excellent and various curriculum resources. For example, a mathematics teacher in Jiangsu Province has provided many valuable teaching resources for many teachers by uploading 30 pieces of mathematics teaching logs.

4.4. Establish Personal Teaching Resource Database for Teachers, Reserve and Share Online Course Resources

In the process of carrying out mathematics teaching activities, mathematics teachers should use public teaching software flexibly, and also develop a mathematics teaching resource library with personal teaching style. At the same time, we should upload the personal teaching experience to the mathematics teaching resource database. Do actively share good experience, try not to save valuable experience in personal computer. In addition, mathematics teachers can also use their spare time to browse the relevant teaching software and teaching resources on the Internet. In this way, in the actual teaching application, mathematics teachers can achieve "set a hundred long, row ten thousand short".

5. The Factors that should be Paid Attention to in the Teaching of Network Course Educational Resources

5.1. Teachers should Make Good Use of the Network Curriculum Resources According to the Mathematics Teaching Content and Objectives

Mathematics teachers should make rational use of cyber source to improve their teaching level. In the process of browsing the cyber source, we must "extract the essence and remove the dross". Because of the uneven level of teachers, teaching objectives are not the same, resulting in network teaching resources are not all practical application. Mathematics teachers should make a reasonable choice of network courses according to their own teaching objectives and teaching level. Only to ensure that the choice of their own network courses is compatible with their own teaching objectives, can we ensure that mathematics teachers can achieve the desired results in the teaching process. But sometimes a certain course on the Internet is suitable for all teachers, which will test the teachers' ability to screen the usability of the course. Therefore, teachers should effectively screen network resources and make rational use of network resources, so as to improve their own teaching level, enhance students' interest in learning and enhance students' learning effect through network resources.

5.2. Teachers should Reasonably Screen Online Curriculum Resources According to Students' Actual Ability

Now it is the information age, the information on the Internet is good and bad, and the teaching resources on the Internet are also very rich. Therefore, how to choose a suitable teaching resource on the network has become a test for teachers in the current network era. So how to choose the most suitable one among the teaching resources on the Internet. First of all, teachers should adhere to their own principles and make a reasonable choice of network resources based on their own teaching advantages and regional teaching situation. Secondly, in the selection process, we should avoid obscure teaching resources and consider the actual situation of students. Finally, to make rational use of teaching resources, we should integrate our own

thinking into teaching resources, and mobilize students' enthusiasm and interest in learning. At the same time, because some network resources are free, and some resources are charged, so when teachers mobilize network resources, they should make rational use of network resources according to the school budget. The best effect is to get the highest teaching promotion with the least funds, so as to maximize the resource efficiency.

6. Conclusion

With the advent of the information age, information technology has also begun to develop rapidly. From the beginning of the text data to the current video data, the teaching form is also developing rapidly with the changes of the network information age. Mathematics teaching begins to keep pace with the times, and constantly carries out innovation and change, which further broadens the students' learning path, and also increases the requirements for teachers' teaching. Teachers should reasonably choose their own teaching resources through the network resources. At the same time, mathematics teachers should also participate in the team of network teaching resource builders. In this way, in the process of improving their own teaching level, teachers can also make network teaching resources more abundant. At the same time, we should also strengthen the quality of the classroom, so as to highlight the dominant position of students, so that students at different levels can receive the corresponding teaching, get the corresponding promotion, get the corresponding development, truly realize teaching students in accordance with their aptitude, and achieve the basic requirements of the education program.

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References

- [1] Su min. practical research on the use of network curriculum resources in high school mathematics teaching [D]. Northeast Normal University, 2012.
- [2] Liu Chengxin. Integration and reconstruction: analysis of the interaction between technology and Curriculum Teaching [D]. Nanjing Normal University, 2006.
- [3] Zhao Yuanyuan. Research on the integration of information technology and high school mathematics curriculum [D]. Liaoning Normal University, 2009.
- [4] Wang Chong. Research on the integration of online curriculum resources [D]. Guangxi Normal University, 2005.