Exploring and Researching on the Wisdom Class of Advanced Mathematics Based on “Internet+” Era

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Abstract: The development of the Internet has provided the possibility of innovation in higher mathematics teaching, and the teaching of higher mathematics is facing severe tests. Establish the concept of the integration of the Internet and the traditional education of higher mathematics teaching, centering on network teaching and the sharing of teaching resources, flexibly apply big data, smart classroom and other related knowledge in the process of higher mathematics teaching, change the traditional blackboard writing form, and improve The effect of higher mathematics education and efforts to cultivate talents with the ability of flexible application of mathematics required by the times are the directions that our colleges and universities deserve to study and take action.

1. Introduction

At the third meeting of the 12th National People's Congress in 2015, Premier Li Keqiang proposed the “Internet +” plan. Like other traditional industries, the education and teaching model should also be integrated with the Internet to form a distinctive teaching model. Various APPs appear in the classroom, and teachers use network resources to teach, which has changed the way teachers teach and how students learn. In this new “Internet +” mode, various problems have also appeared in higher mathematics learning. This article explores the design and research of advanced mathematics deep learning in smart classrooms.

2. Features of Advanced Mathematics Learning

Advanced mathematics is a basic subject in universities. Compared with junior high school and high school mathematics, advanced mathematics is a more cumbersome course. It is more difficult for the research objects and mathematical methods of mathematics. In college studies, the teaching of advanced mathematics mainly relies on the teacher's blackboard and the students' notes. In this mode, students have a single way to acquire knowledge, and their thinking about problems is limited to the blackboard in the classroom. And the teaching content of advanced mathematics is very much and complicated.

As a basic subject of colleges and universities, advanced mathematics is characterized by abstract, complex calculations and rigorous logic. The abstract and complex calculations of advanced mathematics are the most prominent features of advanced mathematics. In a college classroom, a class lasts for nearly an hour, and only the basic concepts are described throughout. The important content is over in a few minutes, and it is mixed with complicated calculations and a high degree of abstraction. It is easy for students to hear Falling into class, fatigue, lack of discipline, and playing with mobile phones.

With the development of the Internet era and the upgrading of mobile devices, the vast majority of students use information technology equipment such as smartphones, tablets, and computers. Obviously, this ordinary education method can no longer become the mainstream education method, and students are more prone to fatigue. Curriculum teaching needs to use the Internet to continue to develop, so more and more innovations have appeared in the traditional teaching method of advanced mathematics, and it has pointed out a clear and clear direction for future teaching work, that is, combining science and technology and the Internet. Develop and improve the quality of

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teaching. This will not only make it convenient for teachers and students, but also make students have a strong interest in learning. And these changes in various education methods will promote the development of the Internet era. Informatization of education has become an inevitable trend in education and educational work.

Similarly, universities have begun to pay attention to the need for a new type of Internet education. Especially basic subjects such as “Advanced Mathematics” should be given priority.

3. Definition and Meaning of Smart Classroom

Wisdom education is a rich and comprehensive form of education. It is a landmark progress in education from a traditional form to an intelligent classroom. The current advanced mathematics teaching only uses simple technology products such as mobile phones and multimedia, but adds a few more things to the traditional teaching methods. The real smart classroom teaching has not been realized. A smart classroom is an intelligent, convenient and efficient classroom created by the “Internet +” model and various information engineering technologies such as big data and cloud computing. The essence of a smart classroom is to use high-end technology based on daily learning data to make advanced mathematics learning intelligent and data-based. Moreover, in daily learning and life, teachers on college campuses have no way to make a summary of the evaluation of this course in a timely manner and rush to the next course. Then the significance of the smart classroom lies in the evaluation and feedback of the class. It is very timely, the communication and interaction between teachers and students have become frequent, and the acquisition of teaching resources is easier and easier than in the classroom. The learning atmosphere for advanced mathematics is more conducive to forming a learning atmosphere that loves to learn and delve into. Smart classroom teaching and evaluation through the Internet can promote all students to meet their own suitable learning methods and master the knowledge points they want to master, which is more conducive to planning their own learning process and conforms to the law of independent and individualized innovation and development of students. Real-time assessment and feedback in the classroom can achieve high-quality teaching effects. Realize a truly smart classroom.

In traditional education methods, blackboard writing and notes have become the main forms of expression. For subjects such as advanced mathematics, which are full of abstraction and calculation, these forms of expression are not enough to support the speed and content of current teaching. It's just a presentation of the theorem and its properties. The modern smart teaching has introduced smart methods such as mobile apps and multimedia. The presentation of advanced mathematics is more fully optimized. For old teachers, they do not agree with the form of smart classroom, because only relying on a display screen and APP can not fully demonstrate the understanding of advanced mathematics problem types, and more problem-solving ideas and details are completely inferior to teachers in class. The knowledge imparted in person is more profound. And they think that only relying on smart classrooms can not solve students' problems, and they can't reflect students' thinking. What they show on multimedia is only theoretical teaching. In this environment, it is not a good way to develop students' independent thinking ability. But for a wide range of young teachers, because of the convenience and social novelty of smart classrooms, they are more inclined to change the teaching mode and style. However, due to the lack of teaching ability, the key points are not clear.

4. Current Development Status of Smart Classrooms in My Country

Wisdom education is an education model based on the Internet. When it comes to the development of wisdom education, it is fundamentally inseparable from the widespread popularization and application of the Internet. In the 1960s, computers entered people's field of vision, and some thoughtful scientists also put forward the view that they can be learned through computers. These views are continuously aggregated and become the ideological basis of computer teaching in the future. At the beginning of the 21st century, an American founded the famous Khan Academy, after which online courses formally entered people's vision. He uploaded videos of many

subjects to the Internet, including physics, biology, and many other subjects. This is the origin of what we now call MOOC (massive open online course), which is a large-scale open online course. This move has attracted many graduate students from all over the world who are interested in this course to study. Although these courses were only attended by a few students at first, more and more students participated in it soon, even from different countries and countries. Local students come to listen to online courses

In 2010, with the rise of online courses, my country's online education was officially launched. In 2013, my country's first MOOC platform was established. Users can share the course resources provided by many online course platforms on this platform. Users can watch courses from domestic colleges and universities or foreign courses on this platform. Later, Peking University and Tsinghua University also launched their own online course platforms to provide online courses for students around the world.

With the popularization of quality education and the advancement of curriculum reforms, pure online “knowledge classrooms” no longer meet the requirements of educational development. With the development of information technology such as Internet +, big data, and artificial intelligence in education and teaching, The concept of “smart classroom” was put forward. Compared with “knowledge classroom”, smart classroom focuses more on the interaction between the lecturer and the learner or the learner. Different from the previous online teaching model, “Smart Classroom” builds more like a learning community, this model pays more attention to students' exploration and problem-solving ability. And after 2015, the research and development of “smart classroom” has also reached an era of rapid development.

There have been three stages of development since the birth of “Smart Classroom”. In the first stage, new information technology was used to construct a network teaching platform to realize the connection between the school and the students. The second stage focuses more on education and teaching itself, from a breakthrough in network technology to a breakthrough in new curriculum reform education, refines the quality of courses on the network teaching platform, and proposes precise and personalized learning. The third stage is student-centered, through artificial intelligence, big data and other technologies for students to develop personalized learning plans, no longer limited to the traditional teaching mode, support online and offline simultaneous teaching, and focus on improving students' problem-solving The ability to think independently.

5. Countermeasures to Improve the Traditional and Smart Classrooms of Higher Mathematics

Facing the revolutionary influence brought by the Internet age, we should vigorously promote the innovation of higher mathematics teaching concepts and educational models with innovative thinking and a brave and fearless reform spirit. Make every effort to deeply integrate traditional teaching methods and intelligent education models. In the not-too-distant days, we will be able to see the influence of informatization education mode on teacher education and teaching and the influence on students' learning innovation ability. In the era of highly developed information, we should make full use of the Internet and information technology to develop application resources for advanced mathematics. Promote information sharing between universities and students, and improve the education level and teaching quality of higher mathematics. Teachers need to change their ordinary education and teaching ideas, and fully integrate the old model with the new curriculum. Under the leadership of the teacher, students should give full play to the positive role of the Internet and learn to use highly developed technology to explore more suitable learning methods.

5.1 Actively Invest in the Reform of Higher Education Models, and Promote the in-Depth Integration of Traditional Higher Mathematics Models and Smart Classrooms

In order to promote the upgrading and innovation of higher mathematics education and teaching models, teachers and student groups must be required to fully understand the changes brought about by the “Internet +”, and understand the impact of the high-tech industry represented by network data and the Internet of Things in the Internet era. The impact of higher mathematics education.

Encourage educators to actively participate in the education reform integrated with the Internet, actively explore the use of high-tech achievements in the education and teaching process, and work hard to cultivate the talents of the country in the future.

5.2 Building an Education Website to Form an Interactive Platform for Mathematics

The Internet provides a lot of convenience in learning and can break through the time and space limitations of learning. The website is the link between colleges and students. Through the establishment of various higher mathematics education platforms to bring together students and teachers from all parts of the country, it is more conducive to the mobility of learning and the interoperability of educational resources. In the education platform, teaching resources such as teaching outlines, course introductions, PPT, teaching influence, electronic textbooks, reference books, etc. can be provided on the website. Students and teachers can break through the limitations of space and use learning resources anytime and anywhere . Students who want to learn can follow the higher mathematics education website to learn at any time, clarify their learning direction and content, and teachers can also answer questions online. Make learning more efficient. Clarify the problems in learning, and you can study in a targeted manner. Improve students' interest in learning advanced mathematics and create a better campus atmosphere.

6. Conclusion

my country has made great achievements in the application of network technology. With the development of big data, artificial intelligence and other technologies, it has played a big role in promoting the simultaneous online and offline “smart education”. However, the future development of a single subject still requires continuous in-depth exploration and research, and the use of increasingly sophisticated online education resources and media technology to help learners complete the transition from passively receiving knowledge to actively exploring knowledge. It is necessary to make appropriate adjustments according to different teaching situations, especially in the course of higher education, clarify and combine the actual conditions and learning environment of each institution, pay close attention to the current development stage of each subject, so as to choose the right one The teaching method realizes the teaching mode of online promotion and offline supervision, so that the smart classroom can be fully integrated into the lives of students, so as to maximize its value. In addition, education and teaching staff should also strengthen the innovation and development of new models to prevent teachers and students from being bored under the same teaching and teaching mode for a long time. Education needs long-term and stable progress. It is easy for both students and teachers. Be bored with the same mode, and maintain the enthusiasm for wisdom education through the new mode, so as to achieve the most ideal learning effect.

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