

Research on the Influence of Computer Network Teaching Platform Application on the Teaching Process of Higher Mathematics

Suli Cai^{1,*}

¹Fuzhou University of International Studies and Trade, Fujian, China, 350001

*Corresponding author e-mail: caisuli@fzfu.edu.cn

Abstract. With the rapid development of computer, great changes have taken place in China's higher education, which has gradually changed to online education. With the construction of online teaching platform, it has become more and more convenient for college students. With the increasing demand of online education market, we need to combine education and Internet constantly, which will become the frontier direction of education innovation, especially higher mathematics (hereinafter referred to as HM) course. Advanced mathematics is a basic subject, including advanced mathematics, linear algebra, probability theory and mathematical statistics, which is very difficult for some students. Therefore, through the computer network teaching platform (hereinafter referred to as TCNTP), college students can better understand the HM course, which will gradually change the traditional teaching process. First of all, this paper puts forward the important role of TCNTP. Then, this paper puts forward the SWOT analysis of the influence of TCNTP on the teaching process of HM. Finally, some suggestions are put forward.

Keywords: TCNTP, Advanced Mathematics, Course Teaching, Influence

1. Introduction

Traditional HM teaching is a basic subject, which has an important impact on students' later learning. Therefore, college students must strengthen the theoretical knowledge of HM, which will form a good mathematical literacy [1]. Through the cultivation of rational thinking mode, we can carry out a variety of information education, which will stimulate interest in learning. Through the introduction of words, graphics, images, actions and sounds, we can provide a new and vivid teaching environment [2]. At present, HM education is still teacher-centered teaching, which needs to fully mobilize students' learning enthusiasm. Through the TCNTP, we can complete the teaching process through multiple channels, which will better support the teaching auxiliary service. Through the interaction of network platform, we can support learning assisted learning support function, which can provide many functions, such as course information, courseware making, online Q&A, online testing, etc [3]. Through the TCNTP, we can expand the teaching space and the vision of teachers and students. University teaching management is the core link of school management, which can fully accept the form of educational innovation. By integrating into our own development means, we can fully grasp



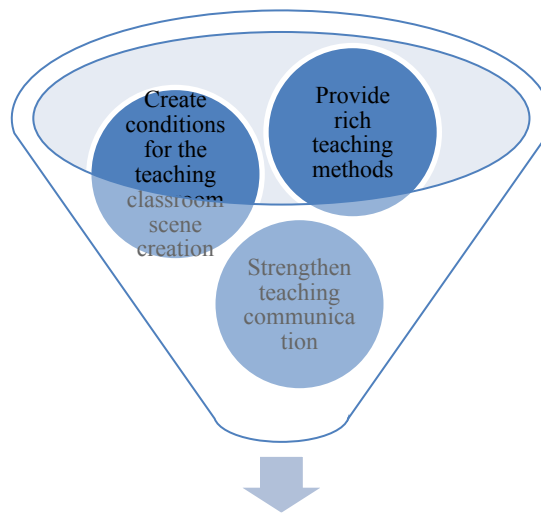
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the online teaching, which can reasonably grasp the opportunities of TCNTP. Through the TCNTP, we can promote the innovation of teaching management in Colleges, which provides a new idea for the high-quality development of colleges [4].

2. The influence of TCNTP on HM Teaching

TCNTP has an important impact on HM teaching, as shown in Figure 1.



The influence of network teaching platform on Higher Mathematics Teaching

Figure 1. The influence of TCNTP on HM Teaching.

2.1. Provide rich teaching methods

Network teaching is a new teaching method, which can provide rich teaching means. Through network technology, mathematics courses can be displayed in various forms, such as text, graphics, images, sound, animation, etc., which will be more flexible, vivid and vivid. Network teaching can cross the limitation of time and space, which has become the most popular teaching method for college teachers. HM is the extension of elementary mathematics, which involves calculus, algebra, geometry and other basic disciplines. Different scientific contents intersect with each other, which can gradually lead to infinity and abstraction. Mathematics is a highly theoretical and abstract reflection, which requires more attention to students' thinking guidance. The application of TCNTP enriches mathematics teaching methods, which has realized the sharing of teaching resources. Through the cultivation of students' autonomous learning ability, the TCNTP provides a good platform, which can show the teaching content of HM from multiple angles. The TCNTP realizes the network interaction between teachers and students, which enriches the teaching means of HM [5].

2.2. Create conditions for the creation of teaching classroom scene

HM is an abstract, logical and theoretical subject. Therefore, in the process of teaching, we can design situational teaching through the TCNTP, which can create conditions for the creation of teaching classroom scenarios. For example, we can stimulate students' interest in the number of computer-based learning and experiment space. Through the TCNTP, we carry out simulation learning in various forms, such as description, description, reasoning, demonstration and so on. The network platform can design function problems, which can simulate mathematical results. Through the creation of classroom scenes, colleges can further improve the quality of teaching [6].

2.3. Strengthen teaching communication

The application of TCNTP not only provides teaching platform, but also opens the treasure house of Mathematics for students. TCNTP is an information resource database. Through the network platform, teachers and students can achieve rapid communication. By accessing learning resources such as exercises, we can obtain teaching resources from professional websites, which will make up for the delay of HM teaching [7]. TCNTP can support teachers to release homework, answer questions and test online, which facilitates the communication between teachers and students at any time. Through the TCNTP, we can expand the teaching space, which strengthens the teaching communication [8].

3. SWOT analysis of TCNTP

Through the analysis of the internal advantages, internal disadvantages, external opportunities and challenges of the development of TCNTP in Colleges, this paper has a rational understanding of the development trend of TCNTP. The results of SWOT analysis are shown in Figure 2.

	Strong	Weak
	<ol style="list-style-type: none"> 1. Large scale 2. Openness 3. High quality 4. Flexibility 	<ol style="list-style-type: none"> 1. Limitations of human-computer interaction 2. Lack of effective incentives 3. Lack of supervision 4. The regulation ability is weak
Opportunity	S-O	W-O
<ol style="list-style-type: none"> 1. Macro policy support 2. Examples of successful practices 3. High acceptance of teachers and students 4. Meeting the needs of development 	<ol style="list-style-type: none"> 1. Make use of our own advantages 2. Pay attention to policy support 3. Tap the market demand and play a guiding role 	<ol style="list-style-type: none"> 1. Improve infrastructure 2. enhance competitive advantage
Threat	S-T	W-T
<ol style="list-style-type: none"> 1. Students' self-control ability is poor 2. High technical requirements 3. Lack of relevant teaching experience 4. Lack of school level support 	<ol style="list-style-type: none"> 1. Develop resources scientifically 2. Improve financial policy 3. improve innovation ability 	<ol style="list-style-type: none"> 1. Give full play to the core advantages 2. cope with regional competition

Figure 2. SWOT analysis results.

4. Measures to strengthen the application of TCNTP

4.1. Change teaching management concept

TCNTP teaching is a new teaching concept, which has a profound impact on traditional education. Therefore, HM teaching management in Colleges must overcome the constraints of traditional ideas, which will be more suitable for the promotion of teaching work in the new era. Therefore, colleges should improve the concept of humanism, informatization and openness, which will better improve the quality of teaching. Humanism is the core concept of social development. The teaching mode of TCNTP embodies the concept of student-oriented, which is a teaching method with students' autonomous learning as the main mode. TCNTP enriches the presentation of knowledge, which will deepen the students' learning experience. By fully reflecting the subjectivity of teachers and students, we can enhance the service function of teaching management, which will better serve the teaching management of students. Informatization is the development trend of teaching management, which needs to establish the awareness of "information technology +". By accelerating the construction of information management, colleges can innovate teaching mode, which can promote the modernization of teaching management. Through the establishment of management platform, colleges can not only improve the means and efficiency of teaching management, which can lay a solid foundation for the new education mode. Openness is the pattern of future development, which will be more scientific for

modern education. Through communication, communication and cooperation, we can pay attention to the openness of teaching management concept. Therefore, colleges should establish regional alliance construction, which will achieve high quality and balanced development of education.

4.2. Improve teachers' comprehensive quality

Teachers are the main body of colleges, which is the key to talent training. The comprehensive quality of HM teachers will directly affect the quality of personnel training, which requires teachers to gradually improve their teaching ability with the development of the times. At the same time, colleges should change the traditional concept of restraint and supervision, which can improve the comprehensive quality and career development. First of all, colleges should cultivate teachers' information awareness, which has become the most significant feature. Through policy propaganda, we can help teachers to establish information awareness, which will improve the ability to capture and sensitivity of information. Second, colleges should improve the technical level of HM teachers, which will directly reflect the ability of teachers to use information. Information technology is a kind of communication tool, which can better carry out diversified professional technical training. By improving the ability of information technology, colleges can help teachers adapt to the modern teaching environment, which will promote the realization of innovative education in HM teaching. Third, teachers should improve their teaching ability. In order to adapt to the situation of TCNTP, teachers should improve their comprehensive quality, including speech ability, knowledge reorganization ability, information technology ability, classroom organization ability, etc. At the same time, we should consider the needs of teachers, which will provide teachers with a broad learning and communication platform. By promoting the exchange and sharing of teaching experience, we can improve teachers' teaching level and teaching ability.

4.3. Broaden access to resources

The overall development of students is the fundamental pursuit of higher education, which needs to conform to the trend of social development. Through the integration of high-quality education resources, colleges can organize teaching practice in a planned way, which will enhance the scientific management of students and improve the quality of training. First, colleges should speed up the development and introduction of high-quality courses of TCNTP through teaching management measures. By making full use of high-quality Internet resources, colleges can optimize and adjust professional courses, which will build a scientific interdisciplinary system. At the same time, the TCNTP can help colleges to create a compound talent training environment, which will speed up the construction of regional alliance. Through the balance of seeking management standardization and personalization, colleges can realize students' cross specialty and cross school learning. Through the TCNTP, we can broaden the access of students' education resources, which will realize the sharing of high-quality education resources. At the same time, the TCNTP can help colleges to create characteristic HM courses, which will improve the popularity and influence of colleges. Second, colleges should pay full attention to the needs of students' ability development, which will cultivate students' autonomous learning ability and information acquisition ability. Through the improvement of teaching innovation ability, students can continuously develop their own learning ability, which will gradually adapt to the current situation of education development. Therefore, students must improve their comprehensive quality, including self-motivation and management ability, independent learning ability, which will better use the TCNTP. HM teaching in Colleges should be gradually open, which will better cultivate students' awareness of active learning. At the same time, students can also improve the learning effect of online courses.

5. Conclusion

The traditional teaching is no longer suitable for the teaching of modern HM, which needs to be combined with the TCNTP for diversified teaching. Through the TCNTP, teachers can fully mobilize the students' ability to find, analyze and solve problems, which will fully mobilize the enthusiasm of

learning. Through the learning effect, teachers can make clear the students' learning situation, which will help them learn better. Through the TCNTP, we can strengthen the communication between teachers and students, which broadens the communication channels. Therefore, the TCNTP has many advantages, which can help students learn HM courses.

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