

The Construction of “Internet Plus Project” Mixed Teaching Mode in the Course of Engineering Applied Mathematics

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Abstract: With the continuous deepening of quality education and the new curriculum reform, the field of education has attracted the attention of all sectors of society. Especially in the current Internet era, it has brought a great impact on educational methods and educational ideas. As a widely used educational method at present, the mixed teaching mode, It can not only better optimize the teaching method with teachers as the main body in the traditional teaching process, but also further highlight the dominant position of students themselves in the classroom. Therefore, it is necessary to introduce the Internet plus project blended teaching mode scientifically and reasonably in the course of engineering applied mathematics, so as to promote the steady improvement of the whole teaching. Therefore, the article first gives a general overview of the Internet plus project blended teaching mode. Secondly, the problems in the Internet plus project mix teaching mode are analyzed. Based on this, the construction measures of Internet plus project blending teaching mode in engineering applied mathematics are proposed.

1. Introduction

In the current process of social development, China's economic development model has changed from the original labor-intensive to innovation driven economic system, and the innovative development of Engineering Science and technology industry plays an engine role, which can play a good role in promoting social development. From this we can see that we must further intensify the reform of engineering education, ensure that engineering education can better meet the basic needs of the Internet revolution and information development, so we need to combine the Internet plus project based mixed teaching mode, and cultivate students' innovative and entrepreneurial ability and self-learning ability as the core content. Ensure that it can better meet the requirements of the development of the current era. At the same time, engineering application mathematics as a basic course in engineering majors is essentially the key to cultivating students' mathematics literacy. It is necessary to introduce Internet plus project blended teaching mode effectively in the actual teaching process, thus steadily improving students' logical thinking ability and basic mathematics ability.

2. Internet Plus Project Mix Teaching Mode

2.1 Connotation of Internet Plus Project Blending Teaching Mode

Mixed teaching mode, which refers to a modern way of synchronous teaching in online and offline education, is itself teaching through Internet technology. Under the influence of Internet plus project, the basic premise of practical item driving is further incorporated into blended teaching, which can not only meet the basic needs of school enterprise cooperation, It can also be consistent with the characteristics of mixed teaching mode. Meanwhile, according to the traceability of Internet IP and the diversified development of modern social environment, the Internet plus project hybrid teaching mode also has many characteristics such as project diversification, practicality and visualization. Its internal structure includes the mixture of traditional learning mode and Internet learning mode. It also includes the combination of learning and work, which is highly consistent with the basic premise in the current process of Engineering Applied Mathematics Education in China, especially in the context of school enterprise cooperation, which also represents that the development platform of school enterprise cooperation has played a vital role in the improvement and optimization of mixed teaching mode [1].

2.2 Internet Plus Project Mix Teaching Mode under the Background of the Times

In the current social development process, the development and improvement of Internet plus project blending teaching mode is an inevitable trend in the development process of the times. The current mixed teaching mode has already had a very good development prospect under the influence of many background backgrounds, such as the reform and development of education, and the rise of the Internet. First, in the process of Internet technology popularization and development, society has entered the era of big data. As early as 2014, the number of Internet users in China has reached an alarming 650 million. This has also played a good role in promoting the development and application of the Internet plus concept, and has been widely applied in the daily life of the masses. Especially in the context of Internet plus education, the online teaching quality of teachers' blended teaching mode has been improved comprehensively. Secondly, in order to better adapt to the impact of the era of knowledge economy, we should improve the efficiency of education reform and focus on cultivating innovative and innovative talents. On this basis, the mixed education model has gradually replaced the traditional education model; Finally, in the Internet era, the e-commerce industry has gradually risen. This also makes the traditional enterprises also explore the new development mode of online and offline operation. Under the background of gradual integration of the enterprises, the demand for innovative talents of the project is showing a continuous improvement, which makes the Internet plus project mixed teaching mode. It has become the mainstream in the process of educational reform.

2.3 The Development of Internet Plus Project Based Blended Teaching Mode

According to the corresponding research statistics, it is obvious that the current Internet plus project hybrid teaching mode has been comprehensively optimized abroad. As early as 2015, about 25% of the students in the UK had online communication with tutors through the Internet or social accounts. And with the continuous development of Internet data information, this kind of data also presents a state of gradual improvement. In the current development situation, about 3000 universities in the United States have built online platforms to facilitate the mixed teaching of teachers. At the same time, the evaluation structure generated within the campus network can also facilitate the talent selection of enterprises. Among them, the enterprises cooperating include

international well-known enterprises such as Facebook and Wal Mart. From the perspective of domestic development, the mixed teaching mode has also been comprehensively developed. Compared with those more mature foreign universities, although it started late in the mixed teaching, it has a relatively fast development speed, coupled with the support provided by the government, The Internet plus project can also provide more [2] for internship.

3. Problems in the Internet Plus Project Hybrid Teaching Mode

3.1 The Network Resource Environment inside the Campus is Not Perfect

In the current social environment, the development of mixed teaching mode mainly appears with the development of Internet technology. It not only has a short development time, but also has a relatively low degree of overall perfection. This also makes the mixed teaching mode have many problems in the application process, such as unbalanced tutor allocation and insufficient platform resources. On the one hand, there is a problem of uneven distribution of campus network platforms in major regions in China. This phenomenon is mainly reflected in urban and rural areas, areas with excellent economic conditions and areas with poor economy. In short, the campus network distribution rate of the former is relatively low compared with the latter, except for the difference of uneven configuration, Among the major campus network platforms, there are also high and low configurations. According to the corresponding data information, at present, most of the campus network APS above 500 exist in those 211 universities, while the APS below 100 are concentrated in higher vocational colleges, which have great differences in campus network speed and network quality; On the other hand, most teachers have been used to the traditional teaching concept and teaching mode, and there are great deficiencies in their mastery of the mixed teaching mode. At the same time, the mixed teaching mode is not just a simple digital teaching construction, The key content is to further cultivate students' practical ability and professional ability in the Internet era, and strengthen students' own learning depth. In the end, the Internet plus project is a serious lack of occupation ability planning and guidance. Generally speaking, the teaching mode adopted by teachers at present has great academic characteristics. In the mixed teaching, there are insufficient innovations in Internet plus aspects. Therefore, in the current social environment, teachers' guidance meetings should be fully integrated with the tutors within the enterprises, so as to better guide teachers to carry out innovative teaching [3].

3.2 The Presentation Result of Project Practice is Relatively Single

In the Internet plus project mix teaching mode, most of them are distributed after the school enterprise cooperation, and the corresponding project orders are distributed by the enterprises. Then the students will carry out project practice according to the specific contents of the orders. Teachers should further actively guide online and offline according to the students' practice process. But in this case, there will be problems such as repetition of practice of the same project. Through the application of mixed teaching mode, we can not only improve the original traditional single teaching mode, but also take students as the main content of teaching and pay attention to the all-round development of students' own innovative thinking. However, although this order type talent training mode can better promote the cooperation between industry, University and research, it is difficult to effectively stimulate students' interest in project practice for the main body of the mixed teaching mode, that is, students, and can not continuously cultivate innovative and innovative talents. At the same time, under the background of this cluster project practice, the distance online teaching involved in the mixed teaching mode is difficult to play its own practical role, which seriously limits the development of the mixed teaching mode. In addition, due to professional

constraints, it is difficult for teachers to optimize and guide students' Internet practice projects. If some projects that teachers cannot guide are involved, and students' own practice projects are relatively single, the guiding role of teachers in the mixed teaching mode will be greatly reduced, It is not conducive to the stable development of mixed teaching mode.

4. The Construction of Internet Plus Project Blending Teaching Mode in the Course of Engineering Application Teaching.

4.1 Scientific and Reasonable Selection of Teaching Content

Under the influence of Internet plus, the teaching content of engineering application teaching should be changed appropriately. It can not be completely confined to all kinds of teaching materials and reference materials. In terms of online and offline education content, we should follow the basic use principles. From the perspective of the school, the offline content selected is mainly classroom teaching content, which requires reducing the proportion of theoretical knowledge in content selection and comprehensively cultivating students' own application ability and thinking ability. In terms of online education content, diversified forms of education can be adopted. The main purpose of online education is to better meet the learning needs of different students. Students with deep learning needs can introduce some excellent online courses. For example, there are excellent courses in websites such as love courses, Through the explanation of this part of online courses, it can effectively satisfy the learning needs of students themselves, and some students who are interested in modeling. They should guide their attention to WeChat group and mathematical modeling official account in schools, because it is often pushed forward with higher number of articles and topics related to modeling in official account. This teaching mode of combining online and offline teaching contents can not only break through the limitations of time and space in traditional teaching, but also ensure that the learning needs of students at different levels can be met [4].

4.2 The Importance of Internet Plus Project Blending Teaching Mode is Clear.

Internet plus belongs to the hot topic in the current social environment. The Internet plus refers to the traditional industries that are added to the Internet platform, which will play a better role in promoting the development of traditional industries. From the perspective of engineering applied mathematics teachers, we can completely change the original teaching mode through the application of Internet plus. In the actual teaching process, most of the students will start project-based teaching in the process of teaching engineering applied mathematics, so that not only can the interest and vividness of learning content be enhanced, Internet plus Internet plus project teaching can effectively stimulate students' learning enthusiasm, and effectively combine the Internet plus project teaching. A new Internet + project hybrid teaching mode can be constructed. The main purpose of this teaching mode is to integrate Internet + project teaching effectively based on fully combining the actual development of the current situation. In different teaching stages, both can be used independently or combined, which can complement the traditional teaching mode and build a new teaching mode that is more convenient to implement, which also makes the research and discussion of this mixed teaching mode play a very important role: first, The Internet plus can change the traditional teaching methods of engineering applied mathematics, not only preserve some traditional essence contents inside, but also ensure that teaching can keep pace with the times, which is also conducive to steadily improving the stability and scientificity of teaching. Secondly, the Internet plus project based mixed teaching mode applies its scientific and reasonable application in the teaching of engineering applied mathematics, and it can integrate and optimize the current

mathematical resources and improve the efficiency of various kinds of educational investment. Finally, through the introduction of mixed teaching mode, a more efficient curriculum evaluation system can be constructed, in which students' own learning interest can be further improved, while improving students' learning efficiency and learning quality, students' diversified learning needs can be better met, and the overall teaching level can be improved to the greatest extent.

4.3 Properly Improve the Use of Network Tools

In the current classroom teaching process of engineering applied mathematics, the focus is on the application of project-based teaching measures. For example, when teaching students, in addition to guiding students to learn some basic knowledge of high numbers, mathematical problems such as integral and limit can be further transformed into mathematical model problems related to students' major, so as to make better explanation. At the same time, after the knowledge explanation is completed, It can also timely guide students to apply their learned knowledge to the process of solving practical problems. For example, some common mechanical components can be set by using the relevant knowledge of calculus, and the performance of mechanical components can also be verified by using the knowledge of engineering applied mathematics. It can be seen that this Internet plus project hybrid teaching mode can further enhance students' problem-solving ability and logical thinking ability. In the whole teaching process, we should appropriately enhance the applicability of network tools, and we can also design classroom questioning and classroom discussions by learning APP. Those students with excellent learning ability can also become small teachers in the classroom. Teachers can let them come to the stage to explain their views, or they can use small software to make animation to further enrich teaching materials, further improve the activity and image of project-based case content, and better attract students to participate in the teaching process.

4.4 Strengthen the Interaction between Teachers and Students through the Internet Platform

In the after-school review stage of engineering applied mathematics, students can complete the testing of teaching through various internet teaching platforms, accurately find out various problems existing in the current learning process, and guide teachers to actively communicate with students. At the same time, teachers can also set up a unified Q & a time on the Internet. At the same time, students can communicate in wechat group or QQ group, which is also conducive to teachers' online Q & A, and students can answer questions to each other. Meanwhile, there are advantages in this Internet plus project after-school review mode: first, it can further strengthen the intensity of student teacher interaction and the interaction between students and students. Because different students have significant differences in ways of thinking and learning ability, this can promote students' different ways of thinking in the review stage. Fully stimulate students' learning enthusiasm and initiative to the greatest extent; Second, in the process of reviewing Internet plus projects, we can also keep pace with the times. For example, if one day suddenly appears economic phenomena or social phenomena, and this practice can also be considered in the perspective of engineering applied mathematics, teachers should actively encourage students to discuss in the Internet. This discussion can also steadily improve students' interest in participation. In the process of practical discussion, it is not only an extension of engineering applied mathematics knowledge, but also a guiding measure for teachers to guide students to establish a correct world outlook and values. In addition, in the process of comprehensive evaluation of students, it should also be evaluated in combination with various contents, including learning attitude, learning situation of students in the process of project-based teaching and network evaluation. Students should be evaluated according to pre class preparation, classroom discipline and homework completion, In the

pre class preview and post class review, scores can also be given according to the activity of the Internet platform, so that students can comprehensively test their overall mastery of mathematical knowledge and problem-solving ability in a semester.

Conclusion: in the present social environment, it has put forward higher requirements for teachers and students. In the practical teaching of engineering applied mathematics, teachers should strengthen their own learning efforts, focus on improving their knowledge level, and further study Internet plus project based blended teaching mode. Ensure that the teaching quality of engineering applied mathematics can be steadily improved, lay a solid foundation for students' subsequent learning and development, and build a more efficient engineering applied mathematics teaching classroom.

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