Research and Practice on the Training Mode of Mathematics and Applied Mathematics Talents

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Abstract: The stage of higher education contains many basic theoretical subjects. Mathematics and applied mathematics are one of them, and occupy a crucial position. With the progress of society, the demand for talents is also changing. Teachers of mathematics and applied mathematics should base on the specific situation of mathematics teaching at this stage, closely link with the needs of the society for the diversification of talents, and strengthen the exploration activities of mathematics and applied mathematics talent training mode. According to the specific situation of mathematics and applied mathematics teaching in China, this paper analyzes the important role of mathematics and applied mathematics talents training, puts forward the problems existing in mathematics and applied mathematics talents training, and formulates the research and practical measures of mathematics and applied mathematics talents training mode, aiming at promoting the development of high-quality talents training.

1. Introduction

With the rapid development of socialist market economy, the development of society needs more and more high-quality talents. In many colleges and universities, personnel training activities are being further strengthened. The subject of mathematics and applied mathematics plays an important role in the teaching of colleges and universities. We need to pay more attention to the personnel training activities, and use diversified measures to accelerate the development of personnel training activities, so as to improve the comprehensive quality and professional ability of students majoring in mathematics and applied mathematics, so that they can better serve the socialist construction.

2. Important Role of the Training of Mathematics and Applied Mathematics Talents

The development of the training activities of mathematics and applied mathematics talents is mainly to adapt to the needs of the times. With the rapid development and progress of society and economy, more industries need mathematics. In order to accelerate the progress of market economy, the society puts forward more strict requirements for mathematics and applied mathematics talents. It is necessary to carry out research activities on the cultivation of mathematics and applied mathematics talents, promote the improvement of teaching quality and ensure that the trained talents can be in line with the needs of social development. Through the continuous development of the training of mathematics and applied mathematics talents, the application scope of mathematics can be further expanded to ensure the completion of innovation activities in mathematics and application fields.

The development of mathematics and applied mathematics talent training can effectively promote the discipline construction. Generally speaking, students majoring in mathematics and applied mathematics have some basic professional knowledge, but they have little understanding of comprehensive humanistic knowledge. Mathematics and applied mathematics personnel training activities can improve the comprehensive quality of students, strengthen the humanistic quality of science and engineering students, and then play a good role in promoting the discipline construction activities, ensure that the teaching activities can be closely linked with the specific situation,

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promote the discipline construction activities to become more perfect, and improve the scientificity of the curriculum reform plan, which is helpful to enrich the subject content.

The development of mathematics and applied mathematics talent training activities is mainly to transport more excellent talents to the society and accelerate the prosperity and development of social economy. At present, teachers are further studying the training mode of mathematics and applied mathematics talents, increasing efforts to carry out the training of applied mathematics talents, striving to improve students' innovation ability and level, helping students to use the theoretical knowledge to deal with specific problems, improving students' knowledge application ability, cultivating more high-quality professionals for the development of society, and accelerating the pace of socialist modernization.

3. Problems in the Training of Mathematics and Applied Mathematics Talents

3.1 Too Prominent Degree of Curriculum Specialization

In the course of mathematics and applied mathematics, the degree of specialization of its design activities is very high, which leads to students' single knowledge structure and can't show the characteristics of this major. There are many professional courses, detailed specific knowledge content, and relatively strict teaching plan and syllabus. Therefore, the degree of specialization of professional courses is very prominent, and students need to learn more compulsory courses, which naturally reduces the number of elective courses and affects the improvement of students' comprehensive quality.

3.2 Unadvanced Teaching Mode

Under the influence of traditional education and teaching ideas, in the process of mathematics and applied mathematics teaching activities, teachers are usually responsible for the explanation of knowledge content, and students just mechanically bear in mind, so it is difficult to fully mobilize students' learning enthusiasm, which is not conducive to the personalized development of students. There are many class hours in professional courses, and students have little time for autonomous learning activities, which affects the development of students' thinking and is not conducive to the development of innovative activities.

3.3 Lack of Innovation Consciousness of Teachers

In the process of training mathematics and applied mathematics talents, in order to ensure that the trained talents can better adapt to the development of society, students should have a certain sense and ability of innovation. In order to promote students to have a certain innovative ability, it is inseparable from the teachers' training activities, requiring teachers to have a relatively high sense of innovation and thinking. However, university teachers do not pay attention to the cultivation of students' innovation ability. In the specific teaching work, they only carry out routine teaching activities, and can't infiltrate innovation education into daily teaching work, which affects the improvement of students' innovation ability.

4. Research and Practice Measures of Mathematics and Applied Mathematics Talent Training Mode

4.1 Improve Teaching Structure

In order to speed up the development of talent training, in the process of teaching mathematics and applied mathematics, all teaching activities should keep up with the development of the times, pay attention to improving the current teaching structure, and carry out curriculum setting activities through advanced methods. In the process of formulating the relevant syllabus, schools should reserve space for teachers to the maximum extent, so that teachers can independently carry out curriculum activities, enhance the vividness and interest of the curriculum, and play a good role in attracting students' learning activities. In order to ensure the interest of mathematics and applied

mathematics teaching activities, we should strengthen the cultivation of students' exploration spirit. When determining the talent training program, we should attach great importance to the cultivation of students' interest in learning, and constantly improve the unity of curriculum. In terms of curriculum setting, the relevant departments of schools can appropriately reduce the setting of professional courses and add some elective courses, which can help students master more comprehensive humanistic knowledge and improve their comprehensive quality.

4.2 Establish and Improve the Relevant Teaching System

First, schools should change the traditional education and teaching ideas, pay attention to cultivating students' practice and innovation ability, so as to make the teaching work meet the needs of schools, and speed up the development of quality education. As a school, it should expand the field and perspective, effectively control the connotation of practice, and fully realize the important role of practical activities in talent training. In the specific goal, schools can increase the proportion of practice teaching to improve students' practical ability and innovation consciousness.

Second, in order to speed up the cultivation of students' practical ability, schools can also improve and optimize the experimental teaching. In order to accelerate the development of mathematics and applied mathematics talent training activities, schools can develop related application software. In order to promote the smooth development of practical teaching activities, schools can also build an open experimental base.

Third, in order to play a good role in training students' practical ability, schools should also pay attention to educational activities outside the classroom. For example, schools can use spare time to organize lectures, forums, competitions and other activities related to mathematical modeling, so as to help students learn more about the theoretical knowledge of mathematical modeling and stimulate their learning enthusiasm.

4.3 Strengthen the Faculty Construction

Students' learning of knowledge content will be directly affected by teachers' teaching ability. In mathematics and applied mathematics talent training activities, teachers not only need to have a certain theoretical knowledge, but also need to have stronger ability and innovation consciousness, so as to speed up the development of talent training activities. In order to improve the quality of teachers, schools can make appropriate improvement to the welfare of teachers, which can produce a certain attraction to high-quality talents and contribute to the development of faculty. Schools should also provide teachers with broad space to ensure the realization of teachers' self-worth. For the current teachers, the relevant school departments should further strengthen the training work, pay attention to the improvement and supplement of the training content according to the specific situation. In order to promote the majority of teachers to pay attention to training activities, after the training, they should also be assessed to enhance their sense of hardship, so that they can apply more energy to teaching work.

4.4 Strengthen the Expansion of Teaching Material Resources Construction

Teaching material construction activities can make the classroom content more diverse and help to carry out talent training activities. As for the construction of teaching materials, the construction of practice and network course teaching materials is the key content. In practice teaching materials, we need to reflect its systematicness and practicality. In addition to paper teaching materials, we can also use diversified forms, such as electronic teaching materials, network course materials, multimedia courseware, etc., so as to better meet the needs of talent training. In view of the tacit knowledge contained in the teaching materials, teachers can also carry out in-depth excavation activities, infiltrate mathematical ideas, values and other contents into each teaching link to strengthen students' mathematical application literacy.

5. Conclusion

The major of mathematics and applied mathematics has a relatively high theoretical nature.

When carrying out talent training activities, all colleges and universities should pay more attention to it, closely link with their own development, formulate scientific methods, and promote the improvement and innovation of the current mathematics and applied mathematics talent training mode. The specific training work should be carried out according to its own specific situation, so as to ensure that the talent training work has its own characteristics. Talent training plan should be clear to improve the comprehensive quality of talents. In teaching activities, we should also pay attention to the diversification of teaching mode, attach great importance to all aspects of the education process, transfer more high-quality talents to the society, and accelerate the development and progress of socialist market economy.

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