

Research on the Teaching Reform of Curriculum Ideological and Political Integration into Higher Vocational Mathematics

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Abstract: This paper aims to explore the practice and effect of integrating ideological and politics in higher vocational mathematics education. Through the review of relevant literature and the analysis of practical cases, this study analyzes the necessity and feasibility of integrating ideological and political education into higher vocational mathematics teaching, as well as the promoting effect of students' ideological and political education. At the same time, it also discusses how to effectively combine the curriculum thinking and politics with higher vocational mathematics teaching, as well as the strategies and methods to achieve positive results, in order to provide some reference for the majority of higher vocational mathematics teachers.

Keywords: Curriculum Ideological and Political; Higher Vocational Mathematics; Teaching Reform

Introduction

Higher vocational education plays an important role in cultivating practical talents, while mathematics, as a basic course, plays a key role in cultivating students' ability to analyze, solve problems and innovate^[1]. However, the problems existing in the current higher vocational mathematics teaching, such as students' low interest in learning and lack of practical application ability, also need to be solved urgently. Therefore, it is expected to provide new ways and methods for the cultivation of students' comprehensive quality.

1. The necessity and significance of ideological and politics in higher vocational mathematics teaching

1.1 Create a correct outlook on life and values

In today's society, the training of talents is not limited to the teaching of knowledge, but also more emphasis on the training of all-round socialist builders and successors. As a subject widely applicable to various fields, mathematics has a wide influence, and its educational significance lies not only in the technical nature of mathematics itself, but also reflected in the guiding role of values. In this context, the integration of ideological and political courses in higher vocational mathematics teaching has extremely important necessity and far-reaching significance. Through the integration of ideological and political education in the curriculum, mathematics education is not only simply to convey concepts and formulas, but also to guide students to think about the relationship between mathematical knowledge and life, and to stimulate them to think deeply on social development and human progress. For example, in teaching, by discussing the relationship between mathematics and society, students can be guided to realize that mathematics is not only a tool for solving problems, but also a force to promote social progress, so as to cultivate their sense of responsibility and mission to the society.

1.2 Cultivate innovation ability

When it comes to higher vocational mathematics teaching, we should not only focus on the transmission of knowledge, but also pay attention to cultivating students' innovation ability and practical ability. In this context, the integration of ideological and political courses will promote the reform and innovation of mathematics education with a more far-reaching significance, and lay a solid foundation for the future development of students. Mathematics should not only be a mechanical knowledge accumulation, but should

also be an effective tool to cultivate innovative thinking. Through the guidance of ideological and political courses, mathematics teaching can play a greater role in cultivating innovation ability. The content and method of ideological and political thinking in the course will guide students to explore the problems in the real world from the perspective of mathematical concepts and theories, and use mathematical knowledge to solve these problems. This will stimulate students' innovative thinking, encourage them to put forward new ideas and new methods, so as to cultivate their innovative ability.

1.3 Train socialist builders and successors

Integrating the concept of ideological and political courses into the teaching of higher vocational mathematics not only pays attention to the transmission of knowledge, but also focuses on training students to become socialist builders and successors with a sense of social responsibility. This goal is particularly important in today's social background, because the higher vocational students as the future pillars of the country, their growth and development will be directly related to the prosperity, stability and sustainable development of the country. The integration of ideological and political education into the course has injected ideological nourishment into higher vocational mathematics education, so that students can gradually form a correct outlook on life, values and world outlook in the process of learning mathematics. Through mathematics education, we should guide students to understand the socialist core values, strengthen their moral concepts, and set up correct life goals. This will enable them to pay more attention to the development of the country and society, consciously practice the core socialist values, and contribute to the realization of the Chinese dream of national rejuvenation.

1.4 Strengthen professional responsibility

After graduation, higher vocational students will devote themselves to all walks of life, and their responsibilities and roles will directly affect the operation and progress of the society. In this context, the integration of ideological and political courses in higher vocational mathematics teaching is particularly important. It can guide students to establish a strong sense of professional responsibility and sense of responsibility, so that they can give full play to their talents and potential in the vocational field, and make positive contributions to the sustainable development of the society. Through the guidance of ideological and political education of the course, students can deeply realize their role and value in their career, stimulate students' love and investment in the career they are engaged in, so that they can devote themselves to their career with higher enthusiasm and enthusiasm.

2. Strategies and methods of integrating ideological and political education into higher vocational mathematics teaching

It is a complex and challenging task to integrate ideological and political courses into higher vocational mathematics teaching, which requires teachers to give full play to creativity and innovation, combine the characteristics of mathematics teaching, and adopt a series of strategies and methods to ensure the organic combination of ideological and political education and mathematics teaching, and achieve a win-win situation of teaching objectives^[2]. Here are some strategies and ways you can take:

Content design of the textbook: Teachers can integrate some examples and cases reflecting the socialist core values in the content design of the textbook. By introducing mathematical problems related to social reality, students' sense of social responsibility and innovative ability are cultivated. At the same time, mathematical theory is combined with practical application to encourage students to think about social background and ethics in mathematical problems.

Case analysis: Use real case analysis to connect mathematical concepts with social reality. By analyzing the social problems related to mathematics, students are encouraged to think about the role of mathematics in solving practical problems. For example, statistical concepts are used to analyze data in society to help students understand the meaning and application of data.

Discussion and debate: Organize students to participate in the discussion and debate in class, so that they can express their views on mathematics and social issues. Through mutual exchange and thought collision, promote students' thinking and enhance their sense of social responsibility and civic consciousness.

Project-based teaching: design some projects related to social problems, and require students to use mathematical knowledge to solve practical problems. Such teaching method can cultivate students' practical ability and deepen their understanding of the application of mathematical knowledge in society.

Off-campus practice: arrange students to participate in social practice activities and apply mathematical knowledge to real life. Through practical experience, students can have a deeper understanding of the role of mathematics in solving practical problems, and then cultivate their sense of social responsibility and innovative thinking.

Conduct lectures and seminars: invite experts and scholars in related fields to hold lectures to introduce the application and significance of mathematics in society. At the same time, seminars are organized for teachers and students to deeply discuss the relationship between mathematics and social thinking and politics together, so as to promote the renewal of teaching concepts.

In a word, the integration of ideological and political education into higher vocational mathematics teaching needs a variety of strategies and methods to meet students' different learning needs and backgrounds. Through innovative teaching means, ideological and political education is closely combined with mathematics teaching, so that students can enhance their social responsibility, innovation ability and practical application ability in the process of learning mathematics, and make better contributions to the society.

3. Effect evaluation of integrating ideological and political education into higher vocational mathematics teaching

The effect evaluation of curriculum ideological and political integration into higher vocational mathematics teaching is the key step to ensure the positive results of this integrated education. Through the scientific evaluation method, the changes in students' ideological and political quality, mathematical knowledge mastery and comprehensive ability can be comprehensively investigated, so as to determine the practical effect of ideological and political integration into teaching[3]. First of all, through the student feedback survey, we can understand the students' feelings and views on the integration of ideological and political teaching, and whether they think that such teaching can deepen their sense of social responsibility and innovative thinking. Secondly, the comparison of academic performance can reveal whether the class with ideological and political elements performs better in mastering mathematical knowledge. In addition, comprehensive quality evaluation is also an important part of the evaluation, evaluating students' ability in solving practical problem through the performance of project assignments and practical application cases. At the same time, the quality of curriculum design also needs to be evaluated to see whether it can effectively integrate ideological and political elements into mathematics teaching. Observing the teaching effect, especially whether students actively participate in the discussion and show more social responsibility, is also an important indicator of evaluation. Social impact evaluation can also observe the performance of students in social practice, whether they can organically combine their mathematical knowledge with social responsibility, and make positive contributions to the society. Finally, the change of students' ideological and political quality also needs to be fully considered, and through tests and investigations to understand whether students have improved their ideological and political quality.

Conclusion

This paper summarizes the practice and experience of integrating ideological and political education into higher vocational mathematics teaching, and emphasizes the positive role of this teaching reform. By combining the ideological and political courses with higher vocational mathematics teaching, students' comprehensive quality, innovation ability and practical application ability can be better cultivated, so as to provide useful reference and reference for the development of higher vocational education. At the same time, this paper also points out the challenges and problems still faced by the integration of ideological and political curriculum into higher vocational mathematics teaching, how to balance the relationship between ideological and political content and subject content, etc., and hope that there can be more research and practice in the future, to further improve and promote the development of this teaching mode.

References

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