## Strategies of Effectively Integrating Ideological and Political Education into College Mathematics Teaching

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**Abstract:** The mathematics curriculum in colleges is mainly an essential way to cultivate students' mathematical ability and mathematical thinking, which is greatly key for students' future progress. With the wide popularization of quality education in China, the demand for talents and the standard of requirements have been significantly improved. The current society not only requires talents to have professional knowledge and skills, but also requires talents to equip excellent comprehensive quality and ideological and moral quality. At present, mathematics teaching in colleges pays more attention to students' professional skills training, which does not match the social standards for talents. This paper mainly probes into the strategies of effectively integrating ideological and political education into college mathematics teaching. The main purpose is to provide some guidance and help for deepening college mathematics teaching, so as to further push the ideological and political construction of college courses.

#### **1. Introduction**

Teenagers are the essential basis and key pillar of the progress of the motherland, and also the main driving force to push the progress of the industry. Only when teenagers have a solid professional foundation and comprehensive quality can they effectively push the progress of the country and the industry<sup>[1]</sup>. In the modern education system, mathematics, as the most basic public course, can not only enhance students' mathematical ability and level, but also improve students' professional quality and innovative thinking, which is greatly essential for students' better progress. Nowadays, quality education prevails, and ideological and political education is also widely used in various professional teaching activities. However, the current college mathematics teaching neglects the guidance of students' ideology and politics, which leads to problems such as unclear career scale and the need to enhance their comprehensive quality, and hinders the overall development of students.

# **2.** Necessity of Effectively Integrating Ideological and Political Education into College Mathematics Teaching

### 2.1 Help to Improve Students' Comprehensive Quality

The integration of ideological education into college mathematics teaching can further enrich the content of mathematics teaching, help students build a sound mathematical knowledge system, and also improve students' comprehensive quality. In this way, students will be able to fully play their ideological and political thoughts in the future study and work process, strengthen their own ideals and beliefs, and then obtain more and better development opportunities<sup>[2]</sup>. However, many colleges focus too much on the cultivation of students' professional skills and practical abilities, which leads to many students' unclear recognition of their major and future career development, and lack of scientific and reasonable personal planning. According to the survey, nearly half of the college students have not made specific plans for their future personal development, but have adopted an attitude of drifting with the tide. This kind of negative psychology of college students will not only reduce the efficiency and quality of teaching, but also lead to problems such as dishonesty, improper

working attitude and slackness of work after students enter the society. The integration of ideological courses into college mathematics teaching is conducive to improving the comprehensive quality of students, thus better guiding students to form a correct learning attitude in the process of mathematics learning, and better planning for future personal development.

#### **2.2 Help to Train Professional Talents for the Society**

The integration of ideological education into college mathematics teaching is also conducive to training professional talents for the society. With the wide popularization of quality education in China, the demand for talents has increased, and the requirements have also been greatly enhanced. Most enterprise managers believe that the professional knowledge and practical ability of talents can be cultivated and exercised in practical work, but it is difficult to cultivate personal professional quality, ideological and moral quality in practical work. At the same time, the professional quality and ideological and moral quality of talents affect their work behavior, work attitude and way of dealing with people, which are related to work quality and efficiency<sup>[3]</sup>. If talents can not have good professional quality and ideological level, it will affect the development and market competitiveness of enterprises. In this context, most enterprises will focus more on the professional quality, communication ability and way of doing things of candidates when recruiting talents. The effective integration of ideological education into college mathematics teaching can infiltrate ideological guidance, so as to help students form an excellent professional quality and concept while mastering mathematical professional knowledge.

#### 2.3 Help to Improve the Quality and Level of College Mathematics Teaching

From the perspective of college teachers, integrating ideological education into college mathematics teaching will help enhance the level and quality of college mathematics teaching. At this stage, both vocational college students and ordinary college students lack the ability of independent thinking in the learning process. Once they encounter problems or difficulties, they will more choose to seek help from others, or even give up directly<sup>[4]</sup>. As a theoretical and practical education subject, college mathematics can only be absorbed and understood better in teaching activities and handle with practical problems with mathematical knowledge in daily life if students develop independent thinking ability. The effective integration of ideological education into college mathematics teaching is able to effectively cultivate students' independent thinking ability, personal responsibility, etc. on the basis of cultivating students' mathematical ability. Traditional mathematics teaching is developed more by explaining theoretical knowledge, which leads to students' inability to deeply understand and master teaching knowledge and hinders students' progress and development. By integrating ideological education into college mathematics teaching, we can visualize teaching knowledge through ideological elements, and then help students understand mathematical knowledge in depth. In addition, the effective integration of ideological education into college mathematics teaching can also enrich the teaching content and innovate the teaching form, which is greatly essential for improving the quality and level of college mathematics teaching.

# **3.** Strategies of Effectively Integrating Ideological and Political Education into College Mathematics Teaching

#### 3.1 Integrate Ideological and Political Education into College Mathematics Teaching

If colleges and universities want to fully play the maximum value and advantages of ideological education in mathematics teaching, and achieve the teaching goal of not only cultivating students' professional skills, but also improving students' comprehensive quality, they should first integrate ideological education into college mathematics teaching content. In traditional mathematics teaching, more teaching energy and focus on how to enhance students' learning ability and academic performance, and then ignore the guidance of students' comprehensive quality and ideas.

This, to a certain extent, leads to the students' inability to clearly understand the professional connotation and establish a scientific and reasonable career plan, which seriously hinders the students' personal development<sup>[5]</sup>. Therefore, college teachers should integrate ideological and political education into college mathematics teaching content, deepen students' understanding of mathematical knowledge through teaching cases, ideas dissemination and other ways, and help students form a good comprehensive quality and ideological quality. For example, when university teachers explain the teaching knowledge about piecewise functions, they can introduce the example of taking a taxi in life, and then guide students to make a specific analysis of this case, so as to help students to deepen their understanding of society, and then accumulate social experience, so as to better foster and enhance students' ability to use mathematical knowledge to handle with practical problems.

# **3.2** Develop College Mathematics Teaching Activities under the Guidance of Ideological and Political Education

From the current situation of mathematics teaching activities in China, most teachers focus more on training students to understand and master mathematical professional knowledge, improve students' mathematical ability, and then ignore the ideological guidance to students. The main goal of mathematics teaching activities is not only to enhance students' mathematical learning ability, but also to foster students' thinking and ability to use mathematical knowledge to solve practical problems, thus laying a good basis for students' future career. However, in the actual college mathematics teaching activities, there are a lot of abstract, boring and complex mathematical basic theories, combined with a single teaching form, which reduces the students' interest in learning and enthusiasm for participation in mathematics teaching activities<sup>[6]</sup>. Therefore, in college mathematics teaching, teachers should take ideological education as the guiding ideology to improve and innovate the basic theoretical knowledge of mathematics. For example, when learning the monotony of functions, college teachers can carry out mathematical teaching activities under the guidance of ideological education connect the monotony of function with our life, so that students can understand that monotonic increase of function is like entering a favorable stage of life, while monotonic decrease of function is like entering a adversity of life. In this way, we can not only help students to better grasp the monotony of functions in mathematics teaching activities, but also let students understand that life can not always be in good times or bad times, so we should face each stage optimistically.

# **3.3** Improve the Teaching Form and Give Play to the Effect of Ideological and Political Education

College teachers should also improve and innovate the teaching form, give play to the effect of ideological education, and then effectively foster and enhance students' comprehensive quality and ideological level in college mathematics teaching activities. First of all, college teachers can strengthen the effective integration of ideological education and college mathematics teaching through situational teaching method. For example, college teachers can create the problem of enterprise investment benefit when explaining the relevant content of piecewise function. This will not only enable students to fully grasp the meaning and specific application of piecewise functions, but also help students form a correct concept of investment. For another example, when university teachers explain the maximum value problem, they can create the overall cost of the reservoir to guide students to think deeply, and then imperceptibly guide students to flexibly use mathematical knowledge to solve practical problems, while also helping students to form an environmental awareness of water conservation. Secondly, college teachers can also use multimedia technology to effectively integrate ideological education in mathematics teaching activities<sup>[7]</sup>. In the actual teaching activities, teachers should dig deeply into the ideological elements contained in the mathematics teaching content and magnify them. For example, when learning the sequence content, teachers can use multimedia to broadcast relevant news about campus loans, thereby helping students to deepen their understanding of mathematical knowledge, making students realize the seriousness of improper loans, and helping students establish correct values.

### 4. Conclusion

In a word, it is of great significance to integrate ideological and political education into college mathematics teaching for the formation and progress of students' overall quality and ideological quality. At the same time, it is also an inevitable trend to comply with the market demand for talents. Therefore, college teachers are supposed to fully focus on the significance of ideological and political education for the development of students, integrate the ideological and political education into the mathematics teaching content, carry out mathematics teaching with the guiding ideology of ideological and political education, and improve the teaching form. In this way, we can fully play the significance and value of ideological and political education in college mathematics teaching, and then improve students' ideological and moral quality and comprehensive cultivation, and foster more talents for the society.

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