## Research on Teaching Methods of Advanced Mathematics Based on Mathematical Modeling

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Abstract: With the development and progress of college education, the trend of mathematics teaching is inevitable. In the contemporary mode of education, teachers' teaching methods are also constantly improving and improving. In order to cultivate students' core values and make use of each middle way to carry out effective teaching, not only makes the teaching methods new, but also reduces the time for teachers to give lectures, so that students can learn a lot of knowledge. For the present colleges and universities, this stage is the golden period of cultivating students' medical ethics, not only to manage the students' learning situation in peacetime, but also to interfere with the students' spiritual world education. In order to strengthen students' medical ethics, teachers should fundamentally change teaching methods, and only by adopting scientific and effective teaching methods can they help students develop good ideology and politics. Therefore, the reform of college education is inevitable. In the course of college teaching, teachers should combine psychology with medical ethics. The basic content of colleges and universities is to pay attention to the cultivation of technical skills, this concept is not wrong, but if you ignore medical ethics, it will cause some problems of students' all-round development. This paper focuses on the practice and exploration of higher teaching methods based on mathematical modeling, hoping to bring some help to the school's mathematics construction and teaching practice.

#### 1. Introduction

Colleges and universities need to make a reasonable improvement on the basis of the original education, and help students improve their mental health quality through scientific and effective ways. The first step is that teachers need to guide students to have the values that can judge right and wrong. In medical ethics, teachers should make a corresponding adjustment plan to their own teaching methods, and then carry out the teaching plan, so that students can slowly improve their psychological literacy in the process of learning. At present, under the examination-oriented education in our country, it is very important to do well the mental health management of the students in the education work. But according to the current educational situation, there are still some problems in this point of higher education. Because, in the current college education, there are still many education do not realize how important this is [1]. In general, most colleges and universities are most concerned about the students' learning situation, ignoring the stable development of students' mental health, which also affects the development of students' healthy psychology. In the course of mental health teaching in colleges and universities, the latest teaching objectives and teaching tasks clearly indicate that we should pay attention to the psychological education of students. Therefore, teachers should correctly guide students to think and learn about the value of life, so that students can respect life and love life. This is also one of the important goals of mental health teaching. Because today's college students' mental development is not mature enough, many times easy to be affected by some bad things and problems, so that they fall into a bad mood vortex, and even more, some college students encounter problems that can not be solved without anyone seeking help to take direct extreme behavior threatening their lives. How to apply medical ethics to the exploration of medical ethics courses in colleges and universities is a question worth studying.

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Figure 1 Mathematics teaching in colleges and universities

## 2. Measures of Cooperative Education in Medical Ethics in Colleges and Universities

## 2.1. Teaching in Conjunction with the Ideological Content of Teaching Materials

Teaching material is the main tool for teachers to carry out teaching activities, so no matter what kind of way to carry out classroom teaching, in fact, it must be expanded on the basis of textbooks. The course content and the teaching material combine organically. While guiding students to carry out ideological education, teachers should also master the knowledge content in the teaching materials, so that they can achieve tacit cooperation with students in teaching, so that the development can promote students to learn ideological education better. Through the analysis of various examples in the textbook, we can convey positive and positive values to students, so as to guide students to learn the correct ideology and politics in the process of learning [2]. Teachers should teach their students through their own actions, so as to help them improve their own ideology and politics, so as to further urge students to form good qualities. We should educate and guide each student according to their own characteristics, so as to teach students according to their aptitude, which can better help students form good psychological literacy, and can also promote the friendly relationship between teachers and students and the all-round development of students.

## 2.2. Strengthening Ideological Education Through Classroom Innovation Interaction

In the classroom, educational teachers can innovate the mode of interaction through the classroom. In medical ethics classroom, teachers can use educational information technology to show psychological knowledge and behavior norms. Use the convenience and speed of information technology in class, explain psychological knowledge to students, and patiently help students solve doubts and puzzles. Improving students' psychological thought can make students despise the harm of life at the same time, so that students have a deeper understanding of ideological education.



Figure 2 Classroom interaction

# 2.3. Strengthen Psychological Incentives and Integrate Ideological Education into Medical Ethics

Teachers should actively communicate and talk with students, have a real understanding of their

inner thoughts, solve the difficulties encountered in their study or life, so as to think about the solutions that can be solved. To heal their inner uneasiness. Teachers can create a psychological communication group in the class, not only for students, but also for parents to participate in it [3]. Parents should also be given the correct guidance, through a series of communication and communication, so that students in the school with the help of teachers, in the home can have the help and supervision of parents, so as to better promote the learning and growth of students.

## 2.4. Improve Teachers' Ideological and Educational Literacy by Example

The teacher is the light to lead the students, the teacher's words and deeds students will see in the eyes, is the so-called "up beam is not right and down beam crooked ", only the students taught by a good teacher will be the same. Therefore, in the teaching process of psychology and rule of law in colleges and universities, teachers want more students to carry out correct ideological education and teaching activities, teachers themselves should also carry out a personal teaching to students through their own behavior, so as to help students improve their psychological level, and thus further urge students to form good qualities. Teachers should educate and guide each student according to their own characteristics, so as to teach students according to their aptitude, which can better help students to form a good sense of life safety, improve the learning efficiency of psychology and rule of law, and promote the friendly relationship between teachers and students and the all-round development of students.

## 2.5. Integration of Strong Psychological Incentives into Medical Ethics

In class, teachers can make classroom innovation interaction. In the process of teaching in colleges and universities, most teachers will use information technology to show students knowledge points, and the use of information technology in the classroom is convenient and quick, which can effectively provide students with good learning conditions and solve their doubts in learning. Improving students' learning efficiency is also the key factor to promote the development of teachers and students. Teachers should use multimedia to present problems in the classroom inquiry link and guide students to communicate and explore interactively, rather than listening to teachers blindly. College teachers should strengthen students' medical ethics and cultivate their core qualities. The most important thing is to cultivate students' medical ethics. Teachers should also combine learning content with medical ethics, and students should not only do well in learning, but also set up their psychology well. In the process of college education, medical ethics is gradually integrated into the education of college students [4]. At the same time, it can also teach students ideological and political education, so as to strengthen the cultivation of students' comprehensive literacy. For example, in classroom teaching, we can convey positive and positive values to students by analyzing various examples in textbooks, so as to guide students to learn the correct psychological education in the process of learning. Teachers should teach students through their own behavior, so as to help students improve their own ideology and politics, and further urge students to form good qualities. We should educate and guide each student according to their own characteristics, so as to teach students according to their aptitude, which can better help students form good psychological literacy, and can also promote the friendly relationship between teachers and students and the all-round development of students.



#### Figure 3 Math sessions

## 2.6. Create Psychological Communication Groups to Help Students Solve Problems

At the same time, the educational curriculum of colleges and universities should start from the actual situation, add practical training courses for professional talents, encourage students to communicate more with students and teachers in the course, and can also make normal communication between students and teachers after leaving school by discussing communication groups. Discuss the meaning of the existence of communication group is to enable students with psychological confusion to have a place to express their ideas, in this "communication group ", whether teachers or students can give advice, communication, so that students can feel that someone will care about them, and willing to understand their minds, willing to help them. This method is based on "human education" on the basis of mental health teaching [5]. In the process of communication, teachers can not only focus on students' learning, but also communicate with students about their troubles and difficulties, help students to dredge up psychological pressure, and make students understand the meaning of "healthy psychology" more.

## 3. Conclusion

To sum up, in the process of teaching in colleges and universities, teachers should educate and guide each student according to their own characteristics, so as to teach students according to their aptitude. Teachers should pay attention to the cultivation of students' psychology, adopt diversified and interesting teaching methods, and also encourage students. Through these ways and means to let students feel the importance of psychology, so that students can consciously set up psychological beliefs and goals. In the course of mental health education in colleges and universities, it is of great significance and influence to carry out correct ideological education for students.

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