

How to Stimulate Students' Interest in Learning in College

Mathematics Teaching

Meihong Xiang

Changsha Normal University, Changsha 410100, China.

Abstract: In the process of teaching and learning at any stage, the important role of interest guidance cannot be ignored. Especially in college mathematics teaching, mathematical knowledge is very complex and abstract, and most students are unable to effectively understand and master it during the learning process. So it is even more important to fully stimulate students' interest in learning. This article analyzes the significance and current situation of stimulating students' learning interest in university mathematics teaching, and conducts effective strategy analysis. In order to effectively awaken students' desire for knowledge, guide students to change from passive learning to active learning, so that students can continue to grow and progress in this process.

Keywords: College Mathematics Teaching; Learning Interest; Measure

Introduction

Those who know are not as good as those who are good, and those who are good are not as good as those who are happy. Interest is the best teacher, and with it, one can gain knowledge and learn. Teachers should pay attention to the importance of stimulating students' learning interest in college mathematics during the teaching process, fully analyze the current learning situation and development direction of students, and formulate targeted and effective teaching measures. Conduct effective situational introduction, optimize teaching content, and enrich teaching forms. During this process, fully enhance students' interest in learning and guide them to actively engage in knowledge learning.

1. The significance of stimulating students' interest in learning in college mathematics teaching

Students' interest in learning is an important psychological tendency for them to learn selectively, actively, and happily. Interest is the most realistic and active component of learning motivation, which is the driving force for students to engage in autonomous learning and plays a certain role in promoting their knowledge learning. Only when students develop an interest in relevant knowledge during the learning process can they actively listen with interest, actively explore and think about knowledge, and thus learn more knowledge and information. In traditional teaching processes, teachers are often the main focus, and they blindly guide knowledge during the teaching process. The reason for this manifestation is also a lack of trust among teachers towards students' autonomous learning. With the continuous implementation of quality education, there have been significant changes in some teaching concepts and models in the teaching process. It is required that in the teaching process of the university stage, not only basic knowledge should be imparted to students, but also various abilities and qualities should be cultivated. Einstein once said, "Interest is the best teacher, which can stimulate people's creative enthusiasm, curiosity, and thirst for knowledge." Many educators can view teaching as a process of cultivating interest, believing that only by infiltrating teaching into students' interests and desires can the best teaching effect be achieved, achieving high-quality teaching, and cultivating high-quality talents. At present, college students have many advantages and highlights. But they lack a certain interest in learning. In the process of learning knowledge, one cannot arouse interest and follow the guidance of teachers to explore knowledge. Especially since mathematical knowledge is relatively abstract, students are less interested in learning knowledge. Therefore, stimulating students' interest in learning in college mathematics teaching can fully and effectively

promote students' understanding and learning of knowledge.

2. Measures to stimulate students' interest in learning in college mathematics teaching

2.1 Create scenario import

In college mathematics teaching, to stimulate students' interest in learning, one can use scenario introduction to stimulate their interest. At present, students are not interested in mathematical knowledge during their college years. Some teaching methods of teachers also have a weak guiding effect on students. So teachers can combine the mathematical knowledge in textbooks, combine daily life, and explore mathematical knowledge from some small things in daily life, creating an interesting teaching environment for students. After students become interested in these teaching scenarios, they will actively participate in it to gain knowledge. During the process of understanding, they will be guided by the teacher and develop interest in relevant knowledge. Then, they can understand and learn knowledge through their interest, and apply it. For example, in the process of teaching complex and advanced computational methods, teachers can combine these mathematical calculation knowledge with some phenomena in daily life, integrate knowledge and information, and write an interesting question to guide students to analyze the interesting question. By guiding students to explore and learn knowledge through these interesting questions, students can learn with interest and improve their literacy in various aspects. For example, in the process of guiding students to learn about constants and variables, teachers guide their interest through a small example that students can understand and accept: Xiaomei's age is 17 years old last year, 18 years old this year, and 19 years old next year. Age: The values of 17, 18, and 19 are constantly changing. So from this, it can be seen that age is a variable and constants are 17, 18, 19, etc. The teacher fully stimulated students' interest in this process and guided them to understand some knowledge of constants and variables in university mathematics. A constant usually refers to a fixed value, such as 1, 2, 3, a, b, true, false, hello World, etc. In the Java language, the keyword final is mainly used to define a constant. Once a constant is initialized, its value cannot be changed again. In order to better distinguish and express, 1, 2, 3, a, b, true, false, hello World, etc. are generally referred to as literal constants, while PI and others modified with final are referred to as symbolic constants (character constants). Variables come from mathematics, which can store calculation results or represent abstract concepts of values in Computer language. Variables can be accessed through variable names. In directive languages, variables are usually variable; But in Pure function languages (such as Haskell), variables may be immutable. During this process, teachers guide students to develop interest in relevant mathematical knowledge through small situational approaches. Students can be guided by their interests and then explore and learn knowledge. Through this process, students can learn more useful mathematical knowledge.

2.2 Optimize teaching content

In the process of university mathematics teaching, in order to effectively stimulate students' interest in learning, it is necessary to continuously optimize the teaching content. The knowledge in the mathematics teaching materials during the university stage is unified and rigid. After opening the book, students will be filled with dense Mathematical notation and numbers. When students see these dense numbers and Mathematical notation, they will lose interest in these knowledge instantly. Teachers can simplify these seemingly complex mathematical knowledge and summarize it through some mind maps or flow charts. Continuously optimize the teaching content and transform complex teaching content into forms that students can easily understand and accept, in order to convey to students. After students come into contact with these optimized and simplified teaching content. In the process of understanding mathematical knowledge and information, students will become simpler, become interested in these interesting processes, and actively follow the guidance of teachers to explore and learn knowledge. If we want to teach students some application of Further Mathematics, we can show students some ways of using Further Mathematics in daily life, and guide students to understand knowledge effectively. Develop interest in relevant knowledge. In this process, it is also possible to cultivate students' core mathematical literacy, cultivate their mathematical innovation ability, and lay a solid foundation for their growth and development. For example, in the process of guiding students to learn Elementary function, teachers classify basic Elementary function as: Exponential function, logarithmic function, Power function, Trigonometric functions, Inverse trigonometric functions, etc. During this process, teachers use information technology to present the symbols, graphs, properties, etc. of these functions to students through mind maps. During this process,

students can develop interest in the knowledge presented by the mind maps, and then explore and learn knowledge guided by their interests.

2.3 Enrich teaching methods

In the process of university mathematics teaching, it is very important to enrich the teaching methods in order to effectively stimulate students' interest in learning. There are certain differences between teachers in the university stage and those in other stages. The main task of teachers in the university stage is to impart knowledge to students and guide them to continuously grow and progress in this process. However, many teachers' teaching methods in this process are too single and lack innovation. In addition, many mathematics teachers in universities have outdated thinking and have long used a teaching method. They have gained some familiarity with this teaching method and believe that it is the most suitable teaching method for students. In fact, this is a manifestation of the teacher's lack of progress in thinking. To effectively guide students to develop interest in knowledge, innovation is definitely necessary in the use of teaching methods. Innovation arises from a teaching method that students are interested in and easily accept, guiding them to explore and learn knowledge through these teaching methods. Students can fully grow and progress in this process, and can also explore more knowledge from mathematical knowledge. For example, when guiding students to learn the knowledge point of the limit of a sequence, teachers can fully stimulate students' interest in learning through some basic mathematical exercises. In this process, students watch the teacher's demonstration of an exercise of "approximately finding the area of a circle by making a circle inscribed with a Regular polygon" on the big screen. At the same time, it can also guide students to watch some ancient Chinese mathematician Liu Hui's circular cutting technique. Through these examples, students can fully stimulate their interest in learning. Once they develop an interest in relevant knowledge, they can follow the teacher to explore and learn knowledge. During this process, teachers can consolidate more knowledge for students through some exercises. During this process, students have a certain interest in mathematical knowledge during their college years, which can continuously enrich their knowledge and lay a solid foundation for their growth and development.

Conclusion

In summary, in the process of university mathematics teaching, teachers should attach importance to stimulating students' interest in learning. Be good at discovering students' strengths and interests during the teaching process, and provide targeted guidance during the teaching process. Guide students to be interested in students in this way. Guide college students to be interested in knowledge, to better explore knowledge, and to master more knowledge and skills. During this process, students can also understand some principles, clarify their future development direction, move in the right direction, and achieve success.

References

- [1] Jiang DE. How to Stimulate Students' Learning Interest in College Mathematics Teaching [J]. Heihe Education, 2022 (08): 29-30.
- [2] Huang XM. How to stimulate students' interest in learning in the process of mathematics teaching [J]. Mathematics World (Mid day), 2020 (08): 71.
- [3] Liu QQ. How to stimulate students' interest in learning in primary school mathematics teaching [J]. Science enthusiasts (Education and Teaching), 2021 (01): 226-227.