

Research on strategies for improving primary school students' interest in mathematics learning

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Abstract: In recent years, the term "learning interest" often appears in the public eye, and many scholars and teachers have begun to study students' interest in learning. Therefore, this study conducted a study of primary school students in grades 1 to 6 of Yutan Street Central Primary School in Ningxiang City. The author puts forward thoughts and suggestions for improving students' mathematical learning based on the actual situation of Yutan Street Central Primary School.

1. Introduction

It is crucial to ensure the smooth implementation of teaching work, optimize the quality of education, enhance students' interest in learning, and stimulate their intrinsic motivation. In previous studies, few authors have conducted in-depth exploration of primary school students' interest in mathematics learning. Therefore, this study focuses on the field of mathematics. In recent years, the term 'learning interest' has often appeared in the public eye, and many scholars and teachers have begun to study students' learning interests. So, in the eyes of elementary school students, what are the factors that affect their interest in mathematics learning? Based on a survey of students in a central primary school in Ningxiang City, the results were obtained. This survey distributed questionnaires to primary school students in grades one to six^[1-3]. Through statistical data, it was found that the main influencing factors on students' interest in mathematics learning are the students' attitudes toward mathematics knowledge itself, teachers' personalities, and teaching methods. Parent and teacher evaluations are of secondary importance. The author proposes ideas and suggestions for improving students' mathematical learning based on these relevant influencing factors and the actual situation of the central primary school.

2. Purpose of the study

This research aims to primarily understand the influencing factors of primary school students' interest in mathematics learning. The goal is to assist teachers in stimulating students' interest in a targeted manner during teaching, using questionnaires to investigate external factors affecting primary school students' interest in mathematics learning. Based on this research, it seeks to develop strategies^[4] for stimulating primary school students' interest in mathematics learning. The main objectives include conducting questionnaire research to comprehend the general state of primary school students' interest in mathematics learning, analyzing the factors that influence their

interest based on research results, and finally, presenting thoughts and suggestions on how to foster the interest of primary school students in mathematics learning.

3. Suggestions to enhance primary school students' interest in mathematics learning

3.1 Improve the internal drive of primary school students' mathematics learning

The study found that the love of mathematical knowledge is the main reason for the overall students' interest in mathematics, so in the mathematics learning of primary school students, both parents and schools should pay attention to improving the cognitive internal drive of primary school students in mathematics learning, that is, so that students can generate a desire for mathematical knowledge and improve their interest in mathematics learning. Make the implementation of this idea the ultimate goal of elementary school mathematics education. Teachers and parents can present more interesting and challenging mathematical knowledge to students in learning, so that students can discover the beauty of mathematics and understand the importance of mathematics, so as to generate a thirst for knowledge. This intellectual curiosity not only allows students to enjoy mathematics in elementary school, but may also be retained with further education^[5].

Through analysis and research, parents' expectations are the secondary reason why younger students are interested in mathematics, so it is necessary to pay attention to the secondary internal drive of students in mathematics learning in this period and guide them to improve. This requires parents to give more love and encouragement to students at this stage, in ordinary life, parents should pay more attention to their children's mathematical learning, inquire about the daily learning status, and give timely correction or encouragement, so that children feel that they are expected by parents, so as to develop a sense of pride, more attentive in mathematics learning, and slowly transform into interest in learning.

In the middle and upper grades, the sense of accomplishment in studying or testing is a secondary reason for their interest in mathematics, so it is necessary to improve the self-improvement internal drive of the students in this section. This requires teachers to take into account the students of different learning abilities in the class when setting learning tasks, formulate corresponding difficulty questions for them, and add students' sense of achievement to the purpose of the test. Teachers can usually show students more interesting math problems or math stories, so that students can feel the wonder and vastness of the mathematical world; Parents can also participate in some math interest classes without students being disgusted.

3.2 Improve the professional quality of school teachers

Based on the study's findings, it becomes evident that for older students, attention should be directed toward assessing teachers comprehensively. As students grow older, their independent thinking becomes more pronounced, leading to the evaluation of teachers' behaviors, mostly influenced by the qualities and characteristics of the teachers themselves. The work attitude of teachers significantly impacts their interactions with students, which is often evident in their approach to education and teaching. Behaviors like a negative work attitude, indifference towards students, and a lack of seriousness in class are closely observed by students, who form evaluations and impressions of teachers accordingly. This is a key factor in whether students like or dislike a teacher. Therefore, what teachers have to do is to improve their work attitude in school, care for students, actively treat education and teaching work, establish teacher prestige in learning, establish a harmonious and democratic teacher-student relationship in life, so that students can feel close to the teacher is a happy thing, so that students will not fear or hate teachers, so that they are willing to follow the teacher's teaching progress and have interest in learning.

3.3 Create classrooms for efficient mathematics teaching

Teaching methods can help teachers better drive students to participate in the classroom, because primary school students' thinking is generally still in the stage of gradual transformation from concrete image thinking to abstract logical thinking, therefore, teachers need to be able to follow a clear logical order to adopt appropriate teaching methods, mathematics such an abstract subject knowledge through appropriate teaching methods into students easy to accept and interest in concrete activities^[6]. From the results of the study, group cooperative learning is the most popular way of activity, which focuses on communication between students, because they are classmates of the same age, so there is no gap between each other, it is more convenient to talk, and students are more relaxed in a familiar multi-person environment, thinking and language are not restrained, it is a relaxed and effective activity. The second is the learning of the competition form, teachers can design a variety of competition forms such as group competition, teacher-student competition, boy and girl competition, etc., to stimulate students' interest in mathematics learning with the help of students' competitive spirit. In various teaching activities, it is best for teachers to use intuitive teaching aids such as physical objects, wall charts, models, or modern teaching equipment such as slides and multimedia to transform extremely abstract mathematical problems into vivid, concrete, intuitive and visual perception materials, so that students can learn knowledge in fun, thereby stimulating their interest in learning. For younger students, you can use their strong fantasy characteristics to set a certain story scenario in mathematics teaching, such as: treasure hunting adventure, visiting zoos, exploring castles, etc., first stimulate students' interest, and then guide students to master knowledge step by step by solving mathematical problems, and complete the story at the same time, so that students can learn happily^[7-9].

3.4 Assign diversified operational tasks

From the overall perspective of the research results, students did not have obvious resistance to the amount of homework assigned by teachers, which proved that teachers still formulated homework according to the real learning ability of most students. In the process of completing homework, students tend to be more willing to accept easy problems, so in the face of the same amount of homework, students with better learning ability can accept it gladly and can complete it on time and on time, but there are also some students with very good learning ability who think that it is too simple when completing homework, but feel that the homework is too much and meaningless. For students with poor learning ability, there will be a fear of difficulty, thinking that homework is too difficult, and learning is a difficult and tedious thing, which reduces the interest in learning mathematics. In the face of such students with very good learning ability and poor learning ability, teachers should consider that students with different abilities need to complete homework of different difficulty when formulating homework, and arrange homework for students with these three learning abilities in layers, which requires teachers to spend more time designing homework, formulating basic exercises, regular homework, expanding and improving these three types of homework, students with poor learning ability need to start from basic exercises, and complete more regular homework on this basis; Students with better learning ability complete regular assignments with high quality and quantity; Students with very good learning ability need to complete extended homework while completing regular assignments with high quality. Generally speaking, basic practice homework is based on the focus of the content learned, such as the topics in mathematics books, the regular homework is mainly based on the equipped exercise book, and the extension and improvement is mainly based on the topics formulated by the teacher according to the teaching himself. Combined with the after-school service system of Yutan Street Central Primary School, teachers can help students carry out targeted homework supervision and management^[10].

3.5 Attach importance to the evaluation of students' diversity

When students show progress, teachers should not skimp on their own praise. It provide targeted, encouraging evaluations of their behavior to help students recognize their own progress, boost their self-confidence in learning mathematics, and further ignite their desire to excel in mathematics. Therefore, teachers should grasp the small progress of students and conduct encouraging evaluations in a timely manner. If a student exhibits bad behavior, the teacher should also impose reasonable punishment. However, when rewarding or punishing students, individual differences should be noted. Each student's personality characteristics are different, so teachers should reward or evaluate students according to their personality. For example, for an introverted student, praising him in class will greatly enhance the student's confidence in learning. But for extroverts, too much praise can lead to complacency. At the same time, we should pay attention to the age difference of students, the evaluation of students in lower grades should be based on praise, and criticism should be based on the situation should be avoided in front of the class as much as possible to prevent students from fearing the teacher. Therefore, teachers should carefully distinguish the differences between students, and teach according to aptitude to obtain the best teaching results and help students achieve better mathematical development. Similarly, parents also need to cooperate with teachers to carry out good evaluation education.

4. Conclusion

In primary mathematics education, interest is the premise of students' motivation to learn, so it is necessary to increase students' interest in learning mathematics. Through the research of the primary school where the internship is located and the results of the analysis of the results, the current status of students' learning interest is understood, the main factors affecting their learning interest are mainly from the students' own internal driving force for learning, and the secondary factor is the way teachers and parents educate students, and some suggestions are put forward for these problems: shift the purpose of education to let students discover the fun in mathematics, stimulate their interest in learning, set up rich and diverse mathematical activities in the classroom, arrange more hierarchical and interesting mathematics exercises, and evaluate students through appropriate words. Appropriate stimulation is given to students, interest in mathematics learning is maintained, and students' growth accompanies their growth.

Since the author's theoretical knowledge is not detailed enough and the practical experience is not rich enough, the description of some problems in this research is relatively superficial and insufficient to explain many problems. The author will spend more time in future education and teaching work to study hard and improve his professional qualities for further exploration and research.

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