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The Causes and Strategies of Helping the Mathematics Students in Primary School

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Abstract: This paper deeply probes into the causes of primary school math students' difficulties, and puts forward some countermeasures. Through the careful analysis of several cases, it is found that the formation of students with learning difficulties is mainly affected by learning environment, teaching methods, students' own factors and so on. In order to solve this problem, several measures such as creating a good learning environment, improving teaching methods and strengthening psychological counseling are put forward. These measures are helpful to stimulate the learning interest of students with learning difficulties, improve the learning effect of students with learning difficulties, and lay a solid foundation for future mathematics learning. At the same time, it also emphasizes the importance of home-school cooperation, and calls on parents to actively participate in the educational process of students with learning difficulties, and jointly promote the all-round development of students.

Keywords: Primary School Mathematics; Students with Academic Difficulties; Helping Strategy.

1. Introduction

With the deepening of education reform, primary school mathematics education plays an increasingly important role in basic education. However, due to the abstract content of primary school mathematics, many students can't keep up with the pace of learning in time, which leads to the deterioration of mathematics performance and becomes students with learning difficulties in mathematics learning. In primary school mathematics teaching, the problem of students with learning difficulties has always been a difficult problem for teachers and parents. Some students may not have mastered some knowledge at first, but later they can't understand the course more and more, which leads to the decline of mathematics scores, thus losing confidence in learning mathematics. In order to solve this problem, this paper aims to explore the problems and solutions of students with learning difficulties in primary school mathematics, analyze the causes of students with learning difficulties in primary school mathematics, the problems they may encounter in mathematics learning and the measures to help them improve, in order to provide useful reference for primary school mathematics education.

2. The Causes of Students with Mathematics Learning Difficulties

Students with learning difficulties are an objective group in every class, which refers to students who are temporarily behind in their studies due to various factors such as physiology, emotion, cognitive ability and educational background.

The analysis of the causes of students with learning difficulties can not be discussed only from their learning aspects, especially for primary school students. The difficulty of primary school mathematics is relatively small, which is basically the difficulty of knowledge that normal school-age children can accept. At most, the knowledge of primary school mathematics is the difference of acceptance speed, and there won't be too much knowledge that some children can't accept at all. In this case, why do many children still have a big gap with other children's academic performance?

Through analysis in many aspects and angles, we think that the reasons for children's difficulties in mathematics learning in primary schools are complicated, including students' internal and external reasons. The internal reasons are improper mastery of learning methods, lack of learning motivation and low interest in learning, and the external reasons are lack of teaching atmosphere in schools, improper teaching methods of teachers, lack of family attention or the need to improve the social education environment.

2.1. Lack of Interest

Some students may not have a high interest when they first came into contact with mathematics learning. Interest is the best teacher. The biggest problem for many students with learning difficulties may be the lack of interest in learning. There are three main reasons: For students with learning difficulties, the knowledge of mathematics is logical and difficult, and their thinking ability can't keep up; Most "students with learning difficulties" are weak in mathematics learning ability, and it is very difficult to learn mathematics knowledge; Many teachers' teaching methods are single and the teaching content is boring, which makes it difficult to attract "students with learning difficulties" to concentrate for a long time. If students have no interest in learning mathematics knowledge, they will inevitably feel that mathematics is boring, and they can't actively explore and solve mathematical problems.

2.2. Improper Learning Methods

Scientific learning methods are the basis and guarantee for learning mathematics well. Unlike Chinese and English learning methods, mathematics learning can't rely entirely on recitation and memory, but needs to be digested on the basis of understanding, and students need to understand and master knowledge through thinking and hands-on. However, the investigation and study found that many students with learning difficulties in mathematics in primary schools lack good learning methods, such as not carefully previewing before class, not reflecting on wrong questions in time, not actively reviewing after class, etc., so they usually get twice

the result with half the effort and fall into learning difficulties. A good method can get twice the result with half the effort. Whether a student can master appropriate learning methods in the process of learning mathematics determines how far he can go in mathematics learning. At the same time, there are many ways to learn. Students can't copy others' learning methods all at once. Learning methods that are not suitable for them are like reading a useless and incomprehensible book, which wastes time and can't achieve any results.

2.3. Weak Basic Knowledge

Some students get worse and worse in math because of their lack of concentration in class, or they don't know where to start learning new knowledge because they can't establish a good math knowledge network, so their learning efficiency is low. Students' weak foundation leads to a vicious circle, which leads to frustration and fear in mathematics learning, and the lack of scientific learning methods leads to high consumption and low energy in learning. Mathematics learning is like building a building. Every time a new floor is built, it must be carried out under the condition that the foundation is laid in the following floors, otherwise it will collapse. The continuity and sequence of mathematical knowledge make it necessary to study mathematics step by step and not jump. It is impossible to learn further without mastering the basic knowledge.

2.4. Poor Learning Environment

Pupils are relatively young, so they can't form a perfect concept of learning, and they are mainly influenced by the external environment. Family is the first step for students to form a learning concept. If parents are indifferent to students' learning or do not give them proper guidance, students may not be able to treat learning correctly. At the same time, schools and society are also the key factors that influence students to form a good outlook on students. If schools and society do not provide students with a suitable learning environment, students will be influenced imperceptibly, thus missing the critical period of forming a good outlook on learning.

3. Methods and Strategies to Help Students with Learning Difficulties in Mathematics in Primary Schools

Under the influence of many factors, primary school students are prone to decline in their academic performance in mathematics or even become students with learning difficulties, and they will encounter more and more difficult problems in the follow-up study. Therefore, once students are found to have problems in their studies, they should intervene and guide them in time to prevent some small problems from accumulating into irreversible big problems.

3.1. Build Confidence in Learning

In traditional mathematics teaching, teachers mainly adopt quantitative evaluation methods, and evaluate students through the results of mathematics tests. Good results represent excellent, and vice versa. This kind of teaching evaluation pays attention to the results and ignores the process, which will make students feel frustrated, especially those with learning difficulties, and will doubt their learning ability because of this general evaluation. The first step to help students with learning difficulties get rid of learning difficulties is to help students build confidence in learning, and stimulate students' interest in mathematics through vivid and interesting teaching methods, such as using games, stories and riddles, so that students can feel the fun of mathematics, thus cultivating students' enthusiasm for learning. Teachers set appropriate learning goals so that students can have a sense of accomplishment after completing their learning tasks. The requirements for students with learning difficulties should be appropriate, not too high or too low, and should be in line with the actual situation of students. At the same time, when evaluating students, teachers should give priority to praise and encouragement to help students establish self-confidence. Teachers need to guide students to make reasonable learning plans and cultivate their autonomous learning ability. In the process of autonomous learning, students can gradually discover the laws and ways of thinking of mathematics, thus improving the learning effect. At the same time, teachers should teach students some effective learning methods and skills, such as how to take notes, how to understand concepts and how to solve problems. These methods and skills can help students with learning difficulties learn mathematics more effectively and improve their learning effect. Strengthen communication between teachers and students: strengthen communication with students to understand their learning difficulties and needs. By communicating with students, teachers can better understand students' learning situation and thus better guide students' learning. Building learning confidence is a long-term process, which requires the joint efforts of teachers and students. Through the above strategies, students with learning difficulties in primary school mathematics can build up their learning confidence and improve their learning effect. The breakthrough of success is often hidden in a person and needs careful search. This breakthrough is where a person's strengths, advantages and potential lie. Once discovered, we should create conditions, actively support it, make it develop and achieve success in a certain aspect. Students often enhance their confidence through one or two successes, thus arousing their learning motivation.

3.2. Stimulate Interest in Learning

It is an important task to stimulate the learning interest of students with learning difficulties in mathematics in primary schools. Students with learning difficulties often affect their learning because of their resistance to teachers. Therefore, establishing a good relationship between teachers and students is the basis for stimulating their learning interest. Teachers should pay attention to the emotional needs of students with learning difficulties, encourage and praise them more, and help them build their confidence in learning. Multimedia teaching can make abstract mathematical knowledge vivid and more suitable for primary school students' cognitive characteristics. Using images, animations and other forms to show mathematical concepts is helpful to stimulate the learning interest of students with learning difficulties. Integrating mathematics knowledge into games and letting students learn in games can improve students' interest in mathematics. For example, some math puzzles and math relay games can be designed. Combining mathematics knowledge with real life, students with learning difficulties can feel the practicality of mathematics, thus improving their interest in learning. For example, when teaching addition and subtraction, students can be guided to think about shopping problems in life. According to the different situations of

students with learning difficulties, a personalized teaching plan is formulated. Understand the characteristics of each student with learning difficulties, find their advantages and disadvantages, and improve their interest in learning through targeted teaching methods. The establishment of study groups can help and motivate students in their studies. Through group cooperation, students with learning difficulties can understand and master mathematics knowledge more easily, and at the same time, they can also cultivate their teamwork ability. Regularly feedback and evaluate the learning situation of students with learning difficulties, find their progress and highlights, and encourage and affirm them in time. This will help to enhance the learning motivation and self-confidence of students with learning difficulties and further improve their interest in learning.

In a word, to stimulate the learning interest of students with learning difficulties in mathematics in primary schools requires teachers to comprehensively consider the actual situation of students and use various teaching methods and means to help them overcome their learning difficulties, discover the beauty of mathematics and cultivate their learning interests and habits.

3.3. Strengthen the Basic Knowledge

Strengthening the basic knowledge of students with mathematics learning difficulties in primary schools is the key to help them overcome their learning difficulties. In view of the weak links of students with learning difficulties, make a detailed study plan and make clear the daily study tasks and goals. Ensure that students with learning difficulties have enough time and resources to consolidate basic knowledge. Divide the basic knowledge into different stages and review and consolidate it step by step. For example, it can be divided into different stages such as integer, decimal and fraction, and each stage has clear learning objectives and exercises. A lot of practice is a necessary means to consolidate basic knowledge. Teachers should provide students with enough exercises, and give timely feedback and guidance to help students find and correct mistakes. For the basic concepts in mathematics, such as addition, subtraction, multiplication and division, graphic area, etc., it is necessary to ensure that students really understand their meanings. It can help students to understand the concept deeply through examples, diagrams and other ways. Computing ability is the foundation of mathematics learning. Through a lot of computing exercises, students' computing speed and accuracy can be improved. At the same time, teach students some simple calculation methods to improve their calculation ability. Guide students to set up their own set of wrong questions, collect their own wrong questions, and review and consolidate them regularly. The wrong problem set can help students find their own weak links and make targeted improvements. Let students help each other and learn from each other in the form of study groups. Students with learning difficulties can find their own shortcomings by communicating with other members of the group and learn from others' learning experience and methods. Guide students to develop good study habits such as preview before class, review after class, and standardize writing. Good study habits help students to better grasp the basic knowledge and improve the learning effect.

Strengthening the basic knowledge of students with mathematics learning difficulties in primary schools requires teachers to pay special attention and guidance on teaching methods and strategies. By making a detailed study plan, reviewing and consolidating in stages, paying attention to practice and feedback, we can help students with learning difficulties to lay a solid foundation and improve the effect of mathematics learning.

3.4. Cultivate Thinking Ability

In traditional primary school mathematics education, many teachers are bound by old educational ideas, and feel that the understanding and thinking of "students with learning difficulties" are not very good, so they teach them mathematics knowledge by spoon-feeding methods. In this way, it is not only not conducive to "students with learning difficulties" to carry out mathematics learning, but also has a negative impact on their all-round development. For "students with learning difficulties", math teachers should pay attention to educational methods and adopt the way of problem chain to let students follow the teacher's ideas. Only by carefully answering the questions designed by teachers and slowly digesting the knowledge in class can students achieve better teaching results. Strengthening the basic knowledge of students with mathematics learning difficulties in primary schools is the key to help them overcome their learning difficulties. In view of the weak links of students with learning difficulties, make a detailed study plan and make clear the daily study tasks and goals. Ensure that students with learning difficulties have enough time and resources to consolidate basic knowledge. Divide the basic knowledge into different stages and review and consolidate it step by step. For example, it can be divided into different stages such as integer, decimal and fraction, and each stage has clear learning objectives and exercises. A lot of practice is a necessary means to consolidate basic knowledge. Teachers should provide students with enough exercises, and give timely feedback and guidance to help students find and correct mistakes. For the basic concepts in mathematics, such as addition, subtraction, multiplication and division, graphic area, etc., it is necessary to ensure that students really understand their meanings. It can help students to understand the concept deeply through examples, diagrams and other ways. Computing ability is the foundation of mathematics learning. Through a lot of computing exercises, students' computing speed and accuracy can be improved. At the same time, teach students some simple calculation methods to improve their calculation ability. Guide students to set up their own set of wrong questions, collect their own wrong questions, and review and consolidate them regularly. The wrong problem set can help students find their own weak links and make targeted improvements. Students with learning difficulties have problems in mathematics foundation and study habits. Teachers should fully respect students' differences and carry out targeted teaching under the condition of understanding students' mathematics foundation. Teachers can divide students into several groups according to their academic performance and personality characteristics, so that group members can promote and make up for each other. In the form of study groups, let students help each other and learn from each other. Students with learning difficulties can find their own shortcomings by communicating with other members of the group and learn from others' learning experience and methods. Guide students to develop good study habits such as preview before class, review after class, and standardize writing. Good study habits help students to better grasp the basic knowledge and improve the learning effect.

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3.5. Establish Good Study Habits

Helping primary school students with learning difficulties to establish good study habits is the key to improve their academic performance. When facing students with learning difficulties, teachers need to explain the basic knowledge to them, consolidate the basic knowledge they have learned, and check their homework completion every day, so that students can form excellent study habits. Guide students to make a clear study plan, including daily study tasks, time arrangement and goal setting. Help them allocate their time reasonably and ensure that they have enough time to review and preview their math knowledge. Help students improve their concentration through some concentration training games or activities. Concentration is an important foundation of learning, which helps students absorb knowledge better in class. Encourage students with learning difficulties to actively participate in learning, actively ask questions and seek help. Cultivate their habit of autonomous learning, and let them find and solve problems in their inquiry. Guide students to develop good writing habits, including the standardized writing of numbers, symbols and formulas. Standardized writing is helpful to improve students' mathematical expression ability and reduce the error rate. Guide students to review the mathematics knowledge they have learned regularly, and make a summary and induction. Help them build a knowledge system and deepen their understanding of mathematical concepts and formulas. Mathematics is a subject that needs careful attention. Through examples and exercises, cultivate students' careful quality and reduce mistakes caused by carelessness. Stimulate students with learning difficulties' interest in mathematics through interesting teaching methods and activities. Interest is the best motivation for learning, which helps students to devote themselves to learning more actively. Establish an incentive mechanism to give timely encouragement and rewards to the progress and highlights of students with learning difficulties. This can enhance their learning motivation and cultivate a positive learning attitude. Strengthen communication and cooperation with parents, and jointly pay attention to the cultivation of learning habits of students with learning difficulties. Parents' support and cooperation is very important for students to develop good study habits.

4. Conclusion

Helping primary school students with learning difficulties to establish good study habits requires teachers to pay attention to guidance and encouragement in teaching and to cooperate closely with parents. By making study plans, cultivating concentration and careful quality, students with learning difficulties can gradually develop good study habits and improve the effect of mathematics learning.

Generally speaking, we need to analyze and solve the problems faced by students with mathematics learning difficulties in primary schools from multiple angles. Whether it is study habits, thinking ability or psychological factors, we need patient guidance and help. By formulating personalized assistance strategies, we can effectively improve the learning effect of students with learning difficulties and let them regain their learning fun and confidence. I hope this article can inspire everyone and contribute our strength to the growth of students with learning difficulties.

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