

# Strategic Analysis of Creating Effective Problem Situations in Primary School Mathematics Teaching

Yuejie Wang

Caofeidian College of Technology, Tangshan, Hebei, China

**Abstract:** *Under the deep influence of the new curriculum education reform, China's primary school mathematics education has also made great educational achievements to a certain extent at the present stage, and the teaching model of mathematics education is also constantly developing and innovating, among which the most prominent teaching achievements are reflected in the creation of effective problem situations in primary school mathematics. In this process, primary school mathematics teachers have achieved the goal of fully stimulating students' learning interest and improving their learning ability and thinking ability by creating effective mathematical problem situations in the actual teaching process, laying a solid foundation for their physical and mental health development. This article will focus on the strategic analysis of creating effective problem situations in primary school mathematics teaching, and analyze and elaborate on it, hoping to provide valuable reference for the development of primary school mathematics education in the future.*

**Keywords:** Primary school mathematics; Problem situation; create; strategy.

## 1. INTRODUCTION

In primary school education, mathematics is one of the main basic subjects. However, compared with other disciplines in primary school curriculum, mathematics is a discipline with strong preciseness and abstraction. For a long time, improving primary school students' math learning performance and math learning ability has been the primary teaching task of math teachers, which is also the focus of high attention of primary school students' parents and other people from all walks of life. In the actual implementation of mathematics teaching in primary schools, the creation of problem situations should be targeted, which can ensure that the correct mathematical cognition of primary school students can be improved, their ability to learn from each other and help each other in cooperation can be exercised, and the enthusiasm and initiative of students in mathematics learning can be fully stimulated to a large extent. On the basis of improving learning achievements, the teaching quality and efficiency of primary school mathematics teachers can be improved, and the progress of mathematics teaching can be accelerated, Further promote the stable development of mathematics education in primary schools [1].

## 2. THE IMPORTANCE OF CREATING EFFECTIVE PROBLEM SITUATIONS

The importance of creating effective problem situations is mainly reflected in four aspects: (1) Creating effective problem teaching situations is conducive to primary school students to follow the context of mathematical knowledge to accurately grasp the learning content. In the traditional situational teaching of mathematics in primary schools, letting students directly memorize the ready-made conclusions will lead to students completely not knowing the true meaning of mathematical knowledge and problem solving, which will greatly affect the realization of students' deep understanding of the learning content, and is not conducive to the development of primary school students' mathematical thinking. Dewey, a famous educationalist, once clearly pointed out the importance of the "five-step thinking method", in which the thinking method is mainly divided into five stages for learning, the first step: question, the second step: observation, the third step: hypothesis, the fourth step: reasoning, and the fifth step: test. Creating teaching situations can help students master the whole process of generating mathematical knowledge, and then help students understand the teaching content deeply, and fully exercise their mathematical thinking ability, understanding ability and learning ability. (2) Creating an effective problem teaching situation can not only help students better improve their knowledge transfer, but also improve their mathematical application ability. Through the situational learning of specific problems, students can clearly perceive the knowledge content they have learned, and can independently find different solutions according to different types of mathematical problems. Thus, it is ensured that students can firmly grasp the conditions and variations of mathematical knowledge application, so as to achieve flexible transfer and application of mathematical knowledge. (3) Creating an effective problem teaching situation is conducive to stimulating students' interest in learning. Integrating the teaching activities of mathematical problem situations into the teaching situation can greatly enhance the interest of primary school students in mathematical knowledge. Generally, knowledge is displayed in the form of definite conclusions in teaching, and there is no mathematical intelligence activities. Even if some intelligence activities are carried out, they are also carried out according to their prescribed path

On reasoning. Creating problem situations in mathematics teaching can fully stimulate students' exploration and thirst for knowledge, and increase their enthusiasm for mathematics learning. (4) Creating effective problem teaching situations can ensure that students have strong emotional resonance in learning and enrich their mathematical emotional experience. Therefore, creating problem teaching situations will transform mathematical learning into emotional experience comprehensive activities, lay a solid foundation for improving primary school students' mathematical learning achievements, and play an important positive role in it [2].

### **3. INTRODUCE INTERESTING MATHEMATICAL ACTIVITIES**

In the actual process of creating effective problem situations, teachers can flexibly integrate some interesting mathematical activities into the creation, which can effectively adjust the learning interest of mathematics classroom. As we all know, interest is an indispensable and important factor in all learning. Effective combination of problems and interesting activities in mathematics can quickly improve pupils' interest in mathematics learning, attract their eyes, focus their attention, create a good atmosphere for mathematics learning, ensure that pupils actively participate in mathematics learning activities, and truly achieve the goal of improving pupils' mathematics learning performance. At the same time, it can also make a good preparation for creating relaxed and happy math teaching activities [3]. For example, when carrying out the "understanding the RMB" teaching, the primary school mathematics teacher can first create the shopping situation in daily life for the teaching, and divide the students into two groups, one group plays the role of supermarket salesperson. A group plays the role of customers, taking math books, chalk, teaching aids, school bags, etc. as the commodities for sale in the supermarket. In this process, students are asked to clarify the price of each commodity and start shopping activities after a series of preparatory work. This can help primary school students better understand the true meaning of the people's face value. At the same time, the activities can also enrich the classroom teaching atmosphere, achieve "learning by playing, learning by playing", and then, To truly realize the effective combination of interesting activities in mathematics and learning content, and to give full play to the enlightening role of interesting activities in the process of teaching, enrich the emotional experience of primary school students in mathematics learning, better exercise their mathematical thinking ability and mathematical application ability, and play the role of creating problem situations.

### **4. CARRY OUT MATHEMATICAL PRACTICE AND OPERATION ACTIVITIES**

When carrying out math teaching in primary schools, we should integrate the creation of effective problem situations into the actual teaching. In this process, we should create more practical activities for primary school students, and exercise the ability to find problems and solve problems independently through practice. The development of mathematical practical operation activities can ensure that students' practical ability can be effectively improved to a certain extent. Teachers should actively participate in the practical operation activities, guide students to correctly establish mathematical learning ideas, and train students to learn to use their eyes. Ears, hands, mouth, brain and other sensory organs are effectively coordinated, so as to better coordinate with their own learning and operation tasks, and master the learning method of transforming body movements into mathematical thinking throughout the exercise process. At the same time, the introduction of practical operation activities in the creation of problem situation environment can fully stimulate the exploration awareness of primary school students, and on this basis, greatly improve the initiative and initiative of primary school students in mathematics learning, so that they can accurately understand the importance of mathematics learning and the value of mathematics application. For example, when carrying out the teaching work of "radius of circle", the teacher needs to ask the students to prepare the mathematical tools used in this teaching process before class, including cardboard, plastic scissors, ruler, compass, etc. During the teaching process, the teacher can let the students draw four different numerical circles with radius of 4 cm, 6.5 cm, 9 cm and 10 cm on the cardboard independently using the compass, and then cut them out with plastic scissors after drawing. Carefully compare the size of the four. Finally, the teacher should correctly guide the students to think about whether the size of the circle is related to its radius, and what is the main content of the connection. This teaching strategy can not only give full play to the primary school students' dominant position, but also ensure that they can effectively exercise their thinking ability, practical operation ability and observation ability, make the content of mathematical knowledge more intuitive and clear, facilitate the primary school students' thinking and understanding of mathematical knowledge, and further ensure that they can grasp this link more solidly.

### **5. INTEGRATE DAILY LIFE INTO THE PROCESS OF CREATING EFFECTIVE PROBLEM SITUATIONS**

Daily life provides favorable reference conditions for the determination of mathematical concepts. Therefore, it is necessary to integrate daily life into the creation of effective problem situations, so as to realize the important application of mathematical situations in primary school mathematics learning and the application value of mathematics in daily life on the basis of facilitating the understanding of primary school students. No matter how to carry out teaching in any subject, teachers should make relevant mathematical knowledge teaching plans from the perspective of students' thinking, in which the selected life situations should conform to the real daily life scenes and have certain practical significance, which can increase students' familiarity, achieve the perfect combination of daily life and primary school mathematics knowledge as far as possible, and then improve students' awareness of inquiry and thinking. In the teaching process of this link, teachers should constantly improve their professional ability and teaching level, so as to ensure that primary school math teachers can transform the example in the math textbook into another form of expression in the teaching process of this link, and design it into a math learning classroom that is closely related to the daily life of primary school students, so as to further guide primary school students to master knowledge points and math problem solving strategies at a deeper level, Be able to Solve problems independently. For example, when carrying out the "possible, certain and impossible" teaching, teachers can take the daily communication mode to ask students: What are your favorite fruits in your mind? Due to some reasons, you and your mother have delayed the time to buy fruit. When you arrive at the destination, only apples, bananas and oranges are left. What kind of fruit would you like to buy? What kind of fruit can I buy? What kind of fruit is impossible to buy? Through this teaching method, students can be well

brought into daily life situations, and at the same time, every student can be guaranteed to participate in learning activities. To a certain extent, it can ensure that students can effectively cultivate their enthusiasm for learning mathematics knowledge, so that they can truly experience the charm and practical significance of mathematics in daily life. In addition, this teaching method can shorten the psychological distance between teachers and students, help to better establish the harmonious relationship between teachers and students, provide basic guarantee for the learning of other disciplines, and give full play to the application value of creating problem situations.

## 6. CONCLUSION

To sum up, creating effective problem situations plays a vital role in the development of primary school mathematics education and teaching. It can not only better improve the quality of mathematics classroom teaching and the overall quality of learning to a certain extent, but also ensure that teachers can truly achieve the goal of improving primary school students' mathematics learning achievements and teaching quality. By creating various mathematical problem situations, students' enthusiasm, initiative and desire for knowledge in mathematics learning are stimulated, so that they can accurately grasp the practical application value of mathematics, understand the true meaning of mathematics learning, and enrich students' life. At the same time, teachers should also constantly improve their teaching ability, and then create more ways to create mathematical problem situations, giving full play to teachers' leading position and students' leading position, so as to realize the important significance of creating problem situations.

## REFERENCES

- [1] Dai Yongli. Research on Strategies for Creating Effective Problem Situations in Primary School Mathematics Teaching [J]. China Off-school Education, 2018, (26): 74.
- [2] Zhu Yiwei. Analysis of effective problem situation creation in primary school mathematics teaching [J]. Inner Mongolia Education, 2018, (18): 59-60.
- [3] Luo Shuanglin. Preliminary exploration of strategies for creating effective problem situations in primary school mathematics teaching [J]. Mathematics Learning and Research, 2018, (16): 75.
- [4] Kulak O, Kaharaman C. Fuzzy multi-attribute selection among transportation companies using axiomatic design and analytic hierarchy process [J]. Information Science. 2005(8), 191-210.
- [5] PANAYIDES P M, MEKO S. Logistics service provider-client relationships [J]. Transportation Research Part E. 2005(41), 179-200.
- [6] R. Glenn Richey Jr, Mert Tokman, Dalela V. Examining collaborative supply chain service technologies: a study of intensity, relationships, and resources [J]. Journal of the Academy of Marketing Science, 2010, 38(1):71-89.
- [7] MACLEOD W, BENTLEY, JAMES M. Motivation and Markets [J]. The American Economic Review, 1998, 8(6):388-411.
- [8] Zhou Jianbo, Sun Jusheng. Study on the Governance Effect of Operator equity Incentive -- Empirical Evidence from Listed Companies in China [J]. Economic Research, 2003(05): 74-82+93.
- [9] Fu Qing, XIE Wei. Empirical Research on the Impact of Equity Incentive on Corporate Performance -- From the perspective of Restricted Stock and Stock Options [J]. Financial Management Research, 2020(02): 23-34.
- [10] Xie Xiuqi. Executive Incentive, Innovation Investment and Enterprise Performance -- An Empirical Study based on Listed Pharmaceutical companies [J]. Business Accounting, 2019(23):29-33.
- [11] Fan Zuobing, Liu Zhenyu. Research on the influence of executive incentive on business performance [J]. Journal of Hangzhou University of Electronic Science and Technology (social science edition), 2020, 16(01):26-32.
- [12] Shleifer, Vishny. A Survey of Corporate Governance [J]. The Journal of Finance, 1997, 52 (2):737-783.