

Question Strategy of Primary School Mathematics Classroom under the Perspective of Deep Learning

Ying Sun

Changchun Automobile Economic and Technological Development Zone Changshen Road School,
Changchun 130000, China

ABSTRACT

With the continuous deepening of education reform, classroom questioning in primary school mathematics teaching in China is receiving increasing attention from teachers, especially with the emergence of deep learning concepts, which provide new development ideas for optimizing questioning strategies in primary school mathematics classrooms. In the perspective of deep learning, when teachers ask students questions, they should set the questions in areas that students are interested in and combine them with the content of the textbook. Teachers can enhance the effectiveness of classroom questioning strategies by guiding students to ask questions, encouraging them to think critically, and triggering deep thinking. Based on this, this article first elaborates on the basic connotations of deep learning and classroom questioning strategies, then analyzes the importance of optimizing questioning strategies in primary school mathematics classrooms from the perspective of deep learning, and finally explores the optimization path of questioning strategies in primary school mathematics classrooms from the perspective of deep learning, hoping to provide effective reference for relevant educators.

KEYWORDS

Deep learning; Primary school mathematics; Classroom Questions

Primary school is an important period for elementary school students to master mathematical knowledge and form mathematical ideas. During this period, teachers should pay attention to cultivating students' mathematical thinking. Therefore, in the process of teaching primary school mathematics, attention should be paid to cultivating students' mathematical thinking ability and guiding them to actively participate in classroom learning. In traditional teaching models, teachers mostly adopt a rote learning approach, which results in students only being able to memorize and imitate. The emergence of deep learning concepts has provided new development ideas for primary school mathematics teaching in China. This teaching model mainly guides students to have the ability to think deeply when learning knowledge points. Therefore, teachers should pay attention to cultivating students' creative thinking in teaching. Classroom questioning strategy is one of the effective ways to cultivate students' innovative thinking ability. Therefore, teachers should attach importance to optimizing and innovating classroom questioning strategies.

1 The Basic Connotation of Deep Learning and Classroom Questioning Strategies

Deep learning refers to a learning method in which students can reorganize, process, and apply

knowledge based on deep understanding under the guidance of teachers, in order to effectively solve problems. Deep learning emphasizes the deep processing of knowledge by students during the learning process, which can promote the improvement of students' thinking and practical abilities. In primary school mathematics teaching, teachers can combine deep learning with classroom questioning strategies, and stimulate students' thinking through problem design, enabling them to think deeply and effectively enhance their comprehensive mathematical literacy. Classroom questioning strategy refers to a teaching strategy designed and implemented by teachers in primary school mathematics teaching to achieve teaching objectives and meet students' learning needs. Classroom questioning strategy refers to teachers designing appropriate questions during the teaching process, allowing students to think and explore problems on their own. In the perspective of deep learning, teachers can integrate classroom questioning strategies with primary school mathematics teaching, allowing them to actively engage in thinking and questioning, thereby improving their core mathematical literacy and overall quality.

2 The Importance of Optimizing Classroom Questioning Strategies

Classroom questioning strategy refers to a teaching method in which teachers ask students questions in the classroom, guide them to think and analyze, and enable them to explore independently, thereby improving learning effectiveness. The optimization of questioning strategies in primary school mathematics classrooms is conducive to promoting the improvement of the quality of primary school mathematics teaching, thereby helping students master more mathematical knowledge. When conducting primary school mathematics teaching, teachers need to ask classroom questions based on students' actual learning situations. This can not only enhance students' learning enthusiasm, but also help them improve their comprehensive quality on the basis of mastering mathematical knowledge. For example, when discussing the topic of "parallelograms", teachers can ask the following question: "What are the characteristics of parallelograms?" By guiding students to think, teachers can help them understand that parallelograms have features such as symmetry and equal diagonals. During this process, teachers can also guide students to think deeply and help them better understand the knowledge of parallelograms. Through this series of teaching activities, teachers can stimulate students' interest in learning mathematical knowledge.

3 Optimization Path of Questioning Strategies in Primary School Mathematics Classroom from the Perspective of Deep Learning

3.1 Grasp the characteristics of mathematics and scientifically design classroom questioning

In primary school mathematics classrooms, teachers should grasp the characteristics of the subject and scientifically design classroom questioning. In previous mathematics classrooms, teachers often focused on teaching basic knowledge while neglecting students' mathematical thinking abilities, which resulted in poor teaching effectiveness. Therefore, in primary school mathematics teaching, teachers should innovate teaching methods, improve teaching efficiency, and promote students' comprehensive development. Specifically, when designing classroom questioning, teachers should start from the following aspects: firstly, they should set questions based on the content of the textbook. When teaching primary school mathematics, teachers should conduct in-depth interpretation and analysis of the textbook content, and then set questions based on the characteristics of primary school students. For example, when studying the area of rectangles

and squares, teachers can first let students understand the concepts of rectangles and squares, and then let them observe the formulas for calculating the area of rectangles and squares. After understanding and analyzing the content of the textbook, the teacher sets a question: How to calculate the area of rectangles and squares? To improve students' understanding of the knowledge points. Secondly, we should pay attention to the difficulty of the problem. When setting questions, they should be based on the learning characteristics of primary school students and the difficulty of mathematical knowledge points.

3.2 Relying on information technology to stimulate students' interest in exploration

With the continuous development of information technology, the application of information technology has gradually entered primary school mathematics classrooms. With the help of information technology, students' interest in learning can be effectively stimulated, adding color to classroom teaching. For example, when teaching "Understanding the Corner", teachers can use information technology to play animated short films to students. For example, in our lives, there are many angles, such as the sun, moon, earth, etc., which are all composed of angles. For example, when we want to draw a circle, we first need to determine where the center point of the circle is, and then draw a circle with a radius of 3 centimeters at the center point. Then draw a circle with a radius of 2 centimeters at the center point, and finally draw a line segment between these two circles, which is the angle we want to draw. This can effectively stimulate students' interest in learning, help them better grasp the concept of angles, and further understand the characteristics and properties of angles. For example, "Avanti is a very wise and humorous person. Once, he encountered a donkey that was running around because it was not tied up. Avanti discovered this situation and said, 'Okay! Let's compare who can run faster now!' He then jumped up. This can help students fully understand the meaning of each multiplication sign in multiplication equations and its role in multiplication equations.

3.3 Design problem difficulty gradients around the cultivation of core competencies

In the perspective of deep learning, teachers should design the difficulty of questions based on students' actual situations when asking them, and set questions based on students' real-life situations. Teachers can set some questions for students at different levels to meet their needs. For example, when teaching "Average", teachers can set a question "How to calculate the average height in the class", in which the teacher can ask students to calculate the average height of each student in the class. Firstly, teachers can guide students to recall the method they used for their most recent height measurement, and based on this, guide them to ask questions such as "If there are 20 male and 20 female students in a class, how many male and female students are there in total in that class. Secondly, teachers can have students divide into groups to calculate this problem. Through these two methods, teachers can cultivate students' ability to analyze mathematical problems from multiple perspectives, thereby enhancing their divergent thinking and logical thinking skills when thinking about mathematical problems.

3.4 Create problem scenarios to inspire students to think deeply

In mathematics classroom teaching, teachers should create a relaxed and pleasant learning environment, guide students to think independently, and improve their thinking ability. Therefore, teachers should create problem scenarios in primary school mathematics classroom teaching, inspire students to think deeply, and promote students' deep learning. For example, in teaching the

lesson "Understanding Comparison", teachers can use multimedia courseware to present beautiful pictures to students, in order to stimulate their interest in learning. In order to help students better understand the concept of comparison, teachers can play a video and ask students, "After watching the video, what do you think are the characteristics of comparison?" After hearing the teacher's question, students begin to think seriously: "I think both comparison and base are squares, but their comparison is different." "I think both comparison and base are squares." "I think both comparison and base are squares." "I think both comparison and base are squares." After hearing the students' answers, the teacher continues to ask, "So what do you think these cubes have in common?" Students express their opinions one after another: "Comparison are all cubes, and their faces are rectangles. Everything is a cube," and so on. After listening to the teacher's question, the students began to think seriously: "They all have four sides, and each side is the same length." With the guidance of the teacher, the students began to think seriously: "Both the ratio and the base are squares." Under the guidance of the teacher, the students deeply thought and recognized the concept of ratio. By creating problem scenarios, students can actively think and improve their level of deep learning.

3.5 Based on problem guidance, strengthen students' mathematical thinking ability

Teachers need to rely on question guidance when asking students in class, in order to strengthen students' mathematical thinking ability, enable them to understand teaching content through questioning, and promote students' mastery of the knowledge they have learned. Teachers can create attractive problem scenarios during the teaching process to stimulate students' curiosity and enhance their mathematical thinking abilities. For example, in the teaching of "Classification of Triangles" in primary school mathematics, teachers can ask students to classify triangles according to their preferences. Students can choose their favorite color and classify it, and then draw the corresponding shape according to their own ideas. In the classroom, teachers can use this as an opportunity to guide students in classifying triangles. For example, a teacher can ask a question like this: "What color triangles do students like?" By setting up a scenario for this question, it can stimulate students' interest in learning mathematical knowledge and improve their mathematical thinking ability.

3.6 Create real-life scenarios to bring mathematical knowledge to life

Mathematical knowledge is carried out through specific life situations to achieve its practical application. Therefore, teachers should create real-life teaching scenarios in the classroom, guiding students through their existing life experiences, so that they can combine mathematical knowledge with real life. This can stimulate students' initiative and enable them to improve their understanding and application of mathematical knowledge in the process of solving practical problems. For example, when explaining the meaning of fractions, teachers can ask students the following question: "Xiao Ming has 3 cats and 5 dogs at home, how many animals are there in total?" Students can discover the problems through independent exploration, cooperative communication, and other methods: Xiao Ming has 3 cats and 5 dogs at home, how many animals are there in total? At this time, teachers can guide students to bring these problems into life and solve them. For example, teachers can ask students to add up the number of cats and dogs Xiao Ming has at home. Through the above problem-solving methods, students can have a deeper understanding and recognition of fractions, and improve themselves by solving practical problems in mathematics. Ability to solve problems. Thus promoting a deeper, more comprehensive, and complete understanding of mathematical knowledge.

4 Conclusion

The emergence of deep learning concepts provides new ideas for optimizing questioning strategies in primary school mathematics classrooms. Teachers can combine the characteristics of primary school students, create problem scenarios, conduct problem discussions, and strengthen teacher-student interaction to promote the optimization of questioning strategies in primary school mathematics classrooms and enhance their effectiveness. In the perspective of deep learning, teachers should pay attention to graded education for students and set different teaching objectives based on students of different levels. And conduct stratified questioning based on the actual situation of students. Meanwhile, teachers should also guide students to actively explore and encourage them to ask questions in the classroom. After students raise questions, teachers should also guide them to engage in deep thinking. Through teaching activities, students can closely integrate problems with life and cultivate a strong interest in mathematics. In addition, teachers should also enable students to master scientific learning methods.

About the Author

Ying Sun, Master, second-level teacher, Research direction: education and teaching.

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