Exploring the Teaching Strategies of Middle School Mathematics Classroom Under the Double Reduction Policy

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Abstract: With the continuous development of education, the double reduction policy has gradually become the focus of educators. Especially for junior high school mathematics classrooms, there is an indelible connection between whether students can learn mathematics well and whether classroom teaching is effective, and the effectiveness of the classroom is often related to factors such as students' stress level. Therefore, as a qualified junior high school mathematics teacher, it is necessary to carefully do pre class work in daily teaching and research practice, design different forms of teaching and research plans under the double reduction policy, establish a unique learning atmosphere for students, and improve their core mathematical qualities. This article proposes corresponding solutions and strategies on how to carry out mathematics classroom teaching under the double reduction policy.

Keywords: Under the Double Reduction Policy; Junior High School Mathematics; Classroom; Strategy and Research

Introduction

In the current situation of double reduction policy education, what students need is a mathematics classroom that can engage in exploratory learning, rather than a traditional mathematics classroom that simply listens to teachers. In order to better improve the efficiency of middle school mathematics teaching under the double reduction policy, teachers should change their traditional concepts and actively update teaching models. This is beneficial for creating a classroom learning atmosphere and improving students' core mathematical literacy. Compared to mathematics learned in primary school, middle school mathematics is more logical and practical. Mathematics can come from life, and teachers should use reasonable mathematical teaching methods to make them feel that mathematics is closely related to life.

1. The connotation of implementing the double reduction policy

1.1 Reducing academic pressure on students in compulsory education

One of the purposes of implementing the double reduction policy is to reduce the academic pressure and homework pressure of students during compulsory education. The double reduction policy requires schools and teachers to reduce the amount of homework and time students spend doing homework. It is required to adjust and set the form of homework appropriately, so that students can complete homework as much as possible during school. Schools and teachers cannot arrange homework for parents, let alone allow students to review homework themselves.

1.2 Reducing the pressure of extracurricular training

For a long time in the past, many parents were not satisfied with their children's learning situation in school, and most of them sent their children to extracurricular tutoring classes. In the double reduction policy, there was a provision to reduce the number of extracurricular tutoring classes, requiring each tutoring class not to use students' normal rest time for learning and training.

1.3 Increase the "after-sales" level after class

The important goal of implementing the double reduction policy in the education sector is to reduce the burden on students and their parents, in order to restore the original intention of teaching. The double reduction policy also states that every school needs to extend the time it takes to tutor students after class every day. It is stipulated that the school's end of class time should be later than the usual end of work time, allowing parents of students to work with peace of mind and students to study diligently.

2. Current situation of middle school mathematics classroom teaching

2.1 Lagging teaching and research model

With the development of the times, the past teaching and research settings and teaching and research outlines have gradually begun to deviate from the social track and become unsuitable for current teaching. With the progress and renewal of the times, the current teaching and research model suitable for students is greatly different from before. However, most teachers still retain the outdated teaching and research model, teaching in a cramming style, and do not care about cultivating students' mathematical core qualities. This situation not only limits the innovation of mathematical teaching and research, but also cannot stimulate students' innovative thinking, and cannot improve students' mathematical core literacy on the basis of teaching and research, This is an obstacle to students' future development.

2.2 Students lack a mindset of independent learning

Most students do not have a passion for the study of mathematics, but rather use it as a tool for exams and further education. They believe that they only need to mechanically memorize the knowledge points of the exam, which will be completely discarded from their minds after the exam. Therefore, students usually lack an independent learning mindset and only want to rely on the help of the teacher. However, the already dull learning content combined with a single teaching mode is difficult to stimulate students' love for learning mathematics. There are also very few students who want to actively understand, learn, and understand mathematics. Relying on learning methods has become the learning method for most students in junior high school mathematics. To change the current learning situation of students, it is necessary to start by changing the teaching mode, enriching classroom teaching activities, presenting dull learning content in vivid ways, and making students willing to actively learn mathematics. Only by falling in love with mathematics from the bottom of their hearts can students have a clear understanding of the meaning of mathematical knowledge, so that they can naturally memorize the textbook content, rather than relying on others to learn mathematics without using their brains.

2.3 Teachers' teaching and research experience not summarized in a timely manner

In junior high school, students' learning situation particularly requires better care and guidance from teachers. Teachers should grasp every learning process of students and care about their physical and mental health. However, currently, some teachers only use one form of teaching and research to teach all students because they want to be lazy, which is a very wrong approach. On the contrary, teachers should be diligent in summarizing the differentiated learning of each student, adopting targeted teaching and research methods to face the difficulties encountered by students at different learning stages, helping them better learn mathematics and achieve better results. In this way, students can develop comprehensively and reduce academic pressure as much as possible, allowing them to better learn mathematical knowledge in a pleasant atmosphere.

3. How to carry out middle school mathematics classroom teaching and research under the double reduction policies

3.1 Emphasis on scientific education

Under the implementation of the double reduction policy in teaching and research, the mode of education and the methods for students to absorb knowledge are also relatively reduced. Students can only be taught more professional and formal mathematical knowledge in the classroom, and no longer participate in some subject tutoring classes that will only increase the burden to a certain extent after class. In or out of class, students should carry out more scientific mathematical exercises and cultivate core mathematical literacy under the guidance of the teacher, so as to improve their mathematical level, make their thinking more flexible, and actively communicate and discuss some difficult problems and key points with the teacher.

3.2 Changing outdated teaching and research concepts

In the past teaching and research practice, due to the surge in educational institutions and many tutoring classes, most parents and some educators lack their own teaching and research concepts, which makes them feel that only more homework and tutoring classes can gradually improve students' academic performance and absorb mathematical knowledge more thoroughly. This is actually an extremely failed concept that must receive attention and timely solutions from the education industry. In addition, the existence of these educational institutions is actually very non compliant with students' learning habits and correct educational laws. Students should study hard during their study time, rather than during their play time, as this can easily lead to a lack of high concentration among students.

3.3 Conduct differentiated grouping and hierarchical teaching

Under the education of the double reduction policy, an important teaching and research model is to conduct group and hierarchical education, which is a fundamental content in mathematics education and teaching. It can effectively improve the adequacy of middle school mathematics education and also promote the application of the double reduction policy in mathematics teaching and research. In practical teaching, when conducting grouped and layered courses, teachers divide students and course content into three levels, allowing students of different levels to answer different difficult questions, thus making teaching and research more diverse. Teachers can also prepare lessons differently based on the different students' absorption of mathematical knowledge. When implementing targeted teaching mode in hierarchical teaching, teachers are required to pay attention to the manifestation of the advantages of the learners in education and teaching, in order to form good learning confidence. At the same time, in the process of collective learning and communication, students' communication skills can also be improved. Through this model, students can reach a higher level of understanding of mathematical knowledge points, and the double reduction policy can be well integrated into mathematical teaching and research practice.

4. Conclusion

In the teaching process of middle school, mathematics is a subject with strong logical thinking ability. Because the cultivation of students' core mathematical literacy in middle school is extremely important, teachers must pay attention to the careful cultivation of these middle school students. In the context of the "double reduction" policy, it is necessary for teachers to better lead students in learning mathematical knowledge and effectively master the skills of learning mathematics. During this process, teachers also need to establish correct teaching concepts based on the actual situation, use scientific and correct teaching methods from the actual situation, help students think, and enable them to learn mathematics well while reducing their burden.

References

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