



## Strategies for Constructing Efficient Mathematics Classroom in Junior Middle School

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### INTRODUCTION

Learning is not only an inevitable requirement for examination, admission and employment, but also a process for students to improve their own quality and discover their potential. Under the continuous reform of the new curriculum standard, the disadvantages of teacher-centered teaching mode gradually appear, and the mode of guiding students to develop mathematical thinking and actively explore mathematical knowledge gradually comes to the eyes of educators. Nowadays, classroom teaching is no longer just a passive imparting of teachers' theoretical knowledge, but a platform for students to independently explore and consciously learn as the main body of classroom learning. The student-centered teaching mode has become an important measure for many mathematics educators to improve the efficient teaching of mathematics in junior middle schools.

In junior middle school mathematics teaching, teachers not only need to enhance students' various ability levels, but also need to develop their core literacy, which means that teachers should build efficient mathematics classroom.

### EXPERIMENTAL PROCESS

This experiment first carried out a mathematics test for two classes. After the test, test papers of the students of two classes were randomly sorted, and another teacher who did not teach the two classes graded all the test papers so as to ensure fairness score statistics. In the case of full marks for 120 points, the average point of A class of mathematics was 100.6 points, the average point of B class was 101.1 points, 0.5 points ahead. Then, student-centered teaching mode proposed in this paper is adopted for Class A, and teacher-centered teaching mode is adopted for Class B.

The same teacher of Class A and Class B began to adopt different teaching modes and progress for the two classes. The teaching lasted for two months.

After two months of teaching, the two classes were tested again. This test used the same method as the first test and used the same teacher to grade test papers to ensure fairness. According to the statistics, the average score of Class A is 103.8 and that of Class B is 101.5.

### ANALYSIS OF EXPERIMENTAL RESULT

The experimental result shows that among the two classes with 0.5 points difference in average scores of the first mathematics test taught by the same teacher, the average score of the class using student-centered teaching mode proposed in this paper is 3.2 points higher than that of the first test in the mathematics test two months later. The class that was taught by teacher-centered teaching mode scored an average of 0.4 points higher than the first test. It can be seen that the average score of the class using student-centered teaching mode proposed in this paper is 2.8 points higher than that of the class taught by teacher-centered teaching mode. At the same time, it can be calculated that the improvement score of the class using student-centered teaching mode proposed in this paper is 2.4 points higher than that of the class using teacher-centered teaching mode. Therefore, it can be proved that student-centered teaching mode of junior high school mathematics teaching proposed in this paper can help students improve the learning effects of junior high school mathematics in class.

### CONCLUSION

In a word, in junior middle school mathematics teaching class, teachers should pay attention to the development of students' core literacy, and should carry out teaching from the perspective of core literacy. In this regard, as junior middle school mathematics teachers, we should make full use of all kinds of advanced information equipment, to create a good teaching situation, and develop their information literacy and other literacy in the training of their problem awareness and inquiry ability. In this way, we can promote the development of students' mathematical abilities such as mathematical abstraction and logical reasoning, and achieve the comprehensive construction of efficient mathematics teaching class in the enhancement of students' mathematical literacy.