

How to apply "Little Teacher System" in middle school mathematics teaching

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Abstract

Mathematics teaching should promote not only the development of all students but also the overall development of each student. This article is based on the understanding of the connotation of "Little Teacher System", suggests applying it in middle school mathematics teaching reasonably, giving "little teacher" plenty of time and space, innovating the teaching mode of "Little Teacher System", perfecting the evaluation system of the "Little Teacher System".

Keywords: middle school mathematics, mathematics teaching, little teacher system

1. Introduction

Mathematics teaching should promote the comprehensive development of students. The implementation of the "Little Teacher System" plays an important role in mobilizing students' enthusiasm for learning mathematics and enhancing communication between students. It is a form of education advocated by the famous educator Mr. Tao Xingzhi in the practice of life education. However, the current "Little Teacher System" has encountered many difficulties (He, Y. J., 2009) ^[1]. How to apply "Little Teacher System" in middle school mathematics teaching? This is an urgent question to be discussed.

2. The Connotation of "Little Teacher System"

Mr. Tao Xingzhi proposed and implemented the "Little Teacher System" in 1932. He suggests that children can be a "student" and "teacher" at the same time, that is, teaching others is teaching themselves. This is a teaching method and a learning method as well (Zhang, Y. H., 2016) ^[2]. What is the "Little Teacher System"? Tao Xingzhi explained it as follows: little teacher is a student who knows a lot of knowledge before many students and teachers (Xu, Y. J., 2018) ^[3]. The contemporary "Little Teacher System" refers to a kind of teaching mode in which students are "little teacher", and they will lead other students to learn as teachers do, such as preparing lessons, giving a class, summarizing and evaluating the class (Xu F., 2017) ^[4]. "Little Teacher System" means that teachers use reasonable teaching design (teachers are the designers and leaders for the teaching progress) to represent the teaching content through the students acting teachers. In the teaching process, these little teachers conduct the activities of self-judgment, adjust, and teaching implement, in which teachers' duty is to give these little teachers advice to improve their teaching (Ding X., 2016) ^[5].

3. How to Apply "Little Teacher System" in Middle School Mathematics Teaching

3.1 Reasonably Choosing "Little Teacher" to Avoid Only Good Students Have a Chance

Generally speaking, those who have good academic performance, strong expressive ability, and high prestige in the class are undoubtedly the best candidates for "little

teacher". However, in the process of teaching, teachers cannot always let the minority of outstanding students be "little teacher", but pay attention to motivating the enthusiasm and initiative of all students (Liu, S. Z., 2018) ^[6]. Teachers must ensure that each student has opportunity to be a "little teacher". Students can choose the mathematics content they are interested in, design the teaching progress, and then play the role of teacher to pass the knowledge to everyone. We want to make students understand that each of them can be a "little teacher", so as to develop their self-learning ability and raise their awareness of independent learning.

3.2 Paying Attention to Cultivating the Ability of "Little Teacher"

After choosing "little teacher", we must pay attention to cultivating their abilities. For example, in the case of group cooperative learning, teachers should develop the ability of little teachers to cooperate with their group members; When in the course of class, teachers should develop the ability of little teachers to make each student to concentrate and listen carefully; When in the process of task arrangement, teachers should develop their ability to arrange students for different tasks specifically. Only by cultivating the ability of a little teacher can they be "heroes in use", so that they can be better and better, and their advantages can be more prominent. The "little teacher" can play a leading role, so that every student can participate in mathematics learning.

3.3 Reasonably Choosing the Content Suitable for the Teaching of "Little Teacher System"

There is no such a teaching method that suits all teaching content, only a certain method which has the relative advantages in a certain condition. The introduction of a new method is to supplement the effect that traditional teaching methods are difficult to achieve. Teachers can not adopt the "Little Teacher System" mode in all classroom teaching, otherwise it tends to produce an opposite effect. Teachers should be familiar with the teaching content and know the appropriate teaching mode for each mathematics teaching. For example, when students learn the knowledge of graphical transformations, teachers ought to make each student bring graphics related to rotation, translation, and symmetry to

display them on the stage and give a description about them. In this way, we can improve students' interest in learning. However, in the face of more abstract and difficult content for students, it is still necessary for the teachers to guide the students to draw the conclusion step by step.

3.4 Giving "Little Teacher" Plenty of Time and Space in the Activity

Middle school students are still in adolescence, and their minds are not fully mature yet. In order to give full play to the subjectivity of students, we must give students enough time and space to do what they are interested in. Otherwise, it is difficult to achieve good results by conducting an activity in a hurry. For example, "little teacher" needs time and space to prepare a course, think about problems, work in groups, and carry out the teaching activities. With sufficient time and space, the subject learning activities can be deep, thorough and effective (Liu, S. Z.)^[6].

3.5 Creating a Good Atmosphere for the Implementation of the "Little Teacher System"

The implementation of the "Little Teacher System" faces the difficulty of the uneven levels of students' knowledge. If there is no good atmosphere, some students join in just for fun, so it is difficult for them to really learn the knowledge, and also difficult to ensure the activities can be carried out smoothly. Therefore, teachers should hold a class meeting before the implementation of the "Little Teacher System" to make each student in the class realize that learning from their companions is not only important but also necessary, and that everyone is able to be a little teacher (Cheng, X. L., 2013)^[7].

3.6 Innovating the Teaching Mode of "Little Teacher System"

The teaching mode of "Little Teacher System" is not a single way. It is not only a mode in which students act as "little teacher" on the stage to give a lecture. Multiple teaching modes should be invented. For example, when the teacher prepares the lesson, the "little teacher" can participate in the study of the textbook and prepare the students learning plans. Therefore, teachers can stand on the student's point of view to preview the textbooks, put forward the problems, ask questions, and design the students learning plans etc. This breaks the limitations of adult thinking and makes the teaching presupposition more attractive to students (Ding, X., 2016)^[5]. After the class, students can work with the teacher to correct the homework. The "little teacher" should give the feedback about students' homework to other students and communicate with them on the cause of their errors. On the one hand, it can eliminate the situation that students only focus on the results after the teacher's corrections and do not think about their errors seriously. On the other hand, the little teachers' knowledge can be understood deeply, and their ability can also be improved.

3.7 Improving the Evaluation System of the "Little Teacher System"

It has a direct impact on the students' intuitive if the teacher only evaluates or rewards the performance of some classmates, ignore "little teacher", or just evaluates or rewards "little teacher" and ignore other students in the class. Therefore, a reasonable evaluation system is needed to evaluate the students, so that it is more scientific and fair in the final assessment. For example, teachers should take the

unit score as the standard and look at the progress of each group under the leadership of their "little teacher", which can not only improve the enthusiasm of the students in the group but also enhance the leading ability of "little teacher" (Zhang, J., 2018)^[8].

3.8 Improving the Comprehensive Literacy of Teachers to Implement the "Little Teacher System" Teaching

The teacher's work is the prerequisite for the successful implementation of the "Little Teacher System". Therefore, (1) Teachers must carefully cultivate and train the selected "little teacher" to make them clear their responsibility. (2) Teachers must fully trust the abilities of students who have teaching tasks. (3) Teachers should improve their own macro-control ability. For example, teachers must master the ability of grouping, guiding, evaluating, summarizing and so on. Teachers must think about everything that needs to be adjusted in advance. Teachers need to clear the entire process of practice and goals in order to ensure the smooth implementation. (4) In the process of implementing the "Little Teacher System" teaching, although "little teacher" has always been a companion and assistant of teacher in the teaching process, the leading role of teachers cannot be replaced by students. Otherwise, the implementation of the "Little Teacher System" is likely to be mistaken into the teaching extreme (Zhou, L. J., 2011)^[9].

4. Closing Remarks

The "Little Teacher System" is a kind of practical learning mode, which not only enables students to understand mathematics knowledge more deeply but also cultivates students' independent innovation ability. In order to effectively use the "Little Teacher System" in middle school mathematics teaching, teachers and students need to work together, insist the exploration and experiment of the "Little Teacher System" teaching method, and constantly perfect the implementation strategies, so as to improve the students' mathematical learning.

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6. References

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