

# How to Apply the Micro-Class App in Middle School Mathematics Teaching

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## Abstract

With the development of educational information, micro-class Apps are popular among teachers and students. On the understanding of micro-class App, this article suggests applying micro-class App in middle school mathematics teaching by setting up the tutorial course for the micro-class App, strengthening the supervision of students using the micro-class APP, using the micro-class App to achieve layered teaching, setting up reward and punishment system reasonably and improving the function of the micro-class App.

## Keywords

Middle School Mathematics, Mathematics Teaching, Micro-class App

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## 1. Introduction

As a new form of resource, micro-class can be used as a supplementary teaching resource for teachers and a self-learning resource for students. The micro-class video plays an important role in creating a relaxed learning atmosphere, optimizing the teaching process, and giving full play to the initiative of students' independent learning. However, the online video teaching model also has shortcomings, such as less interpersonal communication, loose organizational form and low completion rate [1]. This article will discuss how to apply micro-class App in middle school mathematics teaching.

## 2. Advantages and Disadvantages of the Micro-Class App

On the one hand, the micro-class App has many advantages in teaching. (1) The micro-class App has the characteristics of

short teaching time, less teaching content, less resource capacity, prominent theme, specific content, simplified result, diverse dissemination, timely feedback, and strong pertinence [2]. (2) For teachers, teachers can register accounts and create classes on the Micro-class App. The Micro-class App helps teachers understand the mastery of students' knowledge points, the correct rate of each question, and the progress of the study. Through the full use of micro-classes, teachers can help students accumulate rich mathematical knowledge [3]. (3) For students, the micro-class App concretizes the abstract mathematical concept, uses the known content to connect with the unknown content, converts the abstract text into intuitive information, gives full play to the video animation effect, and quickly explains the knowledge point. The micro-class App allows different students to master the progress and difficulty of learning according to their own situation [4]. Students can carry out systematic self-learning according to the knowledge structure of the platform, and test themselves through the corresponding exercises [5]. Micro-class is beneficial to

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cultivate students' mathematical thinking [6]. (4) For parents, parents can watch "micro-class" with students and share the fun of learning.

On the other hand, the micro-class App also has some shortcomings in teaching. (1) In the micro-class App, the question that students have the correct answer, but some of the steps are wrong, the software is not aware of this. (2) In the era of information development, students are very dependent on electronic products. For example, "onion mathematics micro-class" needs to use electronic products such as mobile phones. When some unconscious students complete the learning tasks in the absence of supervision, they will use electronic products to play online games [7]. Micro-classes have higher requirements for students' consciousness, and teachers can't supervise them from time to time [8]. (3) If the students use video teaching in an unrestrained manner, the living teachers are neglected and become furnishings. On the one hand, the teacher's feelings are lost and the teaching enthusiasm is reduced; on the other hand, the teacher and the student face-to-face communication is blocked [1].

### 3. The Way to Apply the Micro-Class App in Middle School Mathematics Teaching

Through the analysis of the advantages and disadvantages of the micro-class App, I believe that following measures can be taken in the middle school mathematics teaching to help student better use the micro-class App to learn.

#### 3.1. The School Should Set Up a Tutorial Course for the Micro-Class App

When the school chooses a micro-class App suitable for students, if there is no corresponding tutorial class, it will not only waste a lot of time, but also be prone to errors, so that it can't achieve the learning goal very well. Therefore, the school should set up a corresponding tutorial class to help teachers and students get familiar with the functions in the App as soon as possible. For example, teachers need to be familiar with how to register an account, how to create a class, how to choose a textbook version, and how to download a video; students need to be familiar with how to do exercises, how to find the wrong set of questions, how to view the answers, and how to join the class. The school setting tutorial course not only makes teachers and students familiar with the use process of the micro-class App as soon as possible, but also can better improve the teaching methods of teachers and promote students' mathematics learning.

#### 3.2. Parents Should Strengthen the Supervision of the Use of Micro-Class App to Prevent Students from Distracting

Students need to use some electronic products when using the micro-class App, but the self-control ability of middle school students is still weak. If some unconscious students are likely to use other entertainment software during the learning process in the absence of parental supervision, this will easily lead to distraction of learning and delay normal learning time. Therefore, parents should strengthen the supervision of students using the micro-class App. (1) Creator of micro-class App must ensure that the videos in the app can be downloaded, so that the parents can download the videos that the students need to watch in advance, and then watch the learning videos offline when the students use the electronic products. (2) Parents can improve their network settings and limit certain software networking that is not related to learning. Parents can strengthen the supervision of students using the micro-class App through the above methods, which not only can improve the concentration and efficiency of students' learning, but also help students develop good study habits.

#### 3.3. Teachers Should Correctly Understand the Micro-Class App and Pay Attention to the Integration with Traditional Teaching

At present, the micro-class App is popular among teachers and students, but some teachers lack a correct understanding of the micro-class App. When students learn new knowledge, the teacher plays micro-video in almost every class. However, the use of micro-video should also take into account China's actual national conditions. At this stage of the exam-oriented education model, most of the students' study time is occupied by the school. In this case, if the teacher asks the students to watch too many videos, the opposite effect will be obtained [1]. The use of the micro-class App is to supplement the effects that traditional teaching methods are difficult to achieve, enrich the content of classroom teaching, and motivate students to learn. For example, when students are learning to calculate content, only by watching a few minutes of video, students can't master the steps well, and teachers need to use traditional teaching methods. After the teacher explained the method and let the students train in the classroom, the teacher will arrange a certain amount of homework after class to strengthen and consolidate, which will produce better results than teaching with micro-class video [4]. Teachers should correctly understand the micro-class App and learn from the good teaching methods. Teachers should ensure that each piece of micro-class content can optimize classroom teaching activities and integrate with their own characteristics, in order to truly mobilize the

enthusiasm of students to learn, and continuously improve the learning efficiency of students.

### **3.4. Teachers Should Pay Attention to the Use of Micro-Class App to Achieve Stratified Teaching**

When teacher uses the micro-class App to explain the knowledge points to the students, the knowledge points may be confused by all the students, but it also may be that the students with poor foundations need to supplement the learning. At this time, if the teacher has the same requirements for the students with good grades and those with relatively poor grades, it is likely that the students with good grades will not get further improvement in their ability or the students with poor foundation will be less and less confident in learning mathematics. Therefore, teachers should properly understand the learning situation of students. Teachers should not only pay attention to the layered implementation in the classroom teaching, but also maintain the consistency of the layered implementation in the micro-teaching teaching [9]. For example, when students use the micro-class App to preview, teachers need to make different demands on different students. Students with weak foundations are required to understand the knowledge points of the video. However, those students who are well-founded must not only understand the knowledge, but also do the exercises. For another example, the teacher creates a class in the micro-class App and posts the job to the student. Teachers can make students with poor grades do basic questions to enhance their confidence in learning mathematics, and then let the better-based students do the improvement questions to improve their abilities. Only through the above methods, teachers can make each student further develop on the basis of the original level, and make the value of the micro-class App truly reflected.

### **3.5. Teachers Should Set the Reward and Punishment System Reasonably**

In the process of micro-class App teaching, if the teacher does not have a reasonable reward and punishment system. It may lead to students' improper learning attitude towards the micro-class App, or even the phenomenon of coping. Therefore, in order to enable students to make better use of the micro-class App, teachers should have a plan to check the student's learning record in the micro-class App, and have a reasonable reward and punishment system after the examination. In the process of learning, teachers should correctly evaluate students and establish a more perfect incentive mechanism, which can mobilize the enthusiasm and initiative of students. Only by setting up a reasonable reward and punishment system can teachers help students develop good study habits.

### **3.6. Improving the Professional Quality of Teachers Using Micro-Class App for Teaching**

The teacher's work is an important prerequisite for making the micro-class App play an effective role in teaching. If the teacher does not know how to make reasonable use of the micro-class App and how to combine it with the teaching content, the teaching effect may be affected. Therefore, in order to improve the efficiency of micro-teaching, this requires mathematics teachers to improve their professional quality through continuous self-development [10]. (1) In terms of skills, teachers should be proficient in the various operations in the micro-class App. (2) In terms of content, teachers should choose the content that suitable for micro-class teaching method. Although micro-class is an effective auxiliary teaching mode, it is not omnipotent. Not all contents are suitable for micro-class teaching method, and not all reviews need to use micro-class. So teachers need to choose teaching methods according to specific conditions [11]. Teachers should take specific teaching content and teaching objectives as the starting point in designing micro-class hours, provide assistance for students' learning as a foothold, and coordinate the difficulty of video content [12]. (3) In terms of height, teachers should learn the overall knowledge framework system in the micro-class App, and then understand what problems students have encountered in the study, and strengthen the explanation in the classroom according to relevant data. (4) Teachers should communicate with parents in a timely manner, and share the student case in which the students carefully study the micro-class App and have a good effect in the parent group to obtain parental support [13]. Only by improving the professional quality of teachers using the micro-class App for teaching can students be better guided to mathematics. (5) In the actual teaching process, teachers should constantly reflect on and summarize the application results of the micro-classes, so as to adjust the unscientific points in time, so that the micro-curriculum can play a practical role [14].

### **3.7. Students Should Make Reasonable Use of the Resources in the Micro-Class App**

Students can make full use of the learning resources in the micro-class App to preview and review, but students should pay attention to make reasonable use of it. On the one hand, if students do not use the resources in the micro-class App in time, it is possible to make the micro-class App lose its auxiliary value. On the other hand, if the students are over-reliant, they may feel that they have already pre-study before class, and then they will not need to listen to the teacher when they are in class. In the long run, students' academic performance will not be improved, and they will develop bad

study habits. Therefore, students should make reasonable use of the resources in the micro-class App. For example, when students are in class review, if they encounter some forgotten and unintelligible knowledge, they can re-view through the micro-class video to reproduce the teacher's specific explanation process [15]. Only when students make rational use of the resources in App, can they benefit from learning.

### 3.8. Developers Deed to Improve the Functionality of the Micro-Class App

With the development of education, students often have new requirements in the learning process. If the developer can't update and improve in time, it will easily lead to the decline of the teaching efficiency of the micro-class App. Therefore, in order to make the micro-class App better promote the development of students, developers need to improve the problems of teachers and students feedback in a timely manner. For example, the answer analysis in many micro-class Apps is in the form of plain text. In order to make students better understand, developers can join video analysis; many micro-class are interactive between teachers and students. There are very few interactions between students. Developers can add this function so that students can exchange learning experiences and make progress together; Most of the micro-class Apps have teacher and student accounts, but few parent accounts. Therefore, the micro-class App should add a parent account, which allows parents to keep abreast of the child's learning. By perfecting the function of the micro-class App, not only can teachers and parents understand the learning situation of the students in time, but also enable the students to better understand the essence of mathematics knowledge.

## 4. Conclusion

The application of "micro-class" plays an important role in improving students' mathematics achievement and mathematics literacy, and it is also an inevitable requirement for education development in line with the development of the times. As an auxiliary teaching mode, Micro-class App can effectively mobilize the enthusiasm and initiative of students, and make students have a strong interest in mathematics. In order to make the micro-class App better improve the quality of mathematics teaching in middle school, we need to continually improve the deficiencies in practice. The school needs to provide appropriate support and assistance. Teachers should correctly understand the micro-class App and constantly improve their professionalism. Parents should keep abreast of the student's situation and strengthen supervision. Developers must constantly improve the functionality of the Micro-class App. We hope that students will be further developed in mathematics learning through the micro-class App.

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