How to promote student participation and improve online teaching

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Abstract. By analysing the shortcomings of online teaching, this paper explores how to improve students' participation and online teaching quality by improving information-based teaching equipment, teaching environment, teachers' correct guidance, inspiration, good teaching methods, education mode and curriculum design.

1 Introduction

The sudden epidemic has led many schools across the country to implement online education, but its teaching effect is not satisfactory. How to optimize teaching and improve teaching effect?

2 How to improve the effect of online teaching

First of all, teachers should make it clear that due to the change of location and space, the original face-to-face teaching has changed into facing each other across the air. During the epidemic period, online teaching, learning environment, teacher-student relationship, teaching organization structure, management mode and the status of information technology have changed, and the strategies and methods of face-to-face curriculum teaching design cannot be copied. Online teaching is not just copying offline teaching to online teaching. In fact, online teaching requires higher teachers' teaching ability, curriculum organization ability, curriculum design ability and so on. Therefore, how should teachers operate to improve the teaching effect?

2.1 Maintaining First of all, teachers should improve their information literacy

Teachers should have:
- Information cognition: teachers can understand the software and hardware equipment related to teaching and know how to operate.
- Determine the scope of information required.
- Effective and efficient access to required information.
- Critically evaluate information and its sources.

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- Integrate the selected information into your own knowledge base.
- Effective use of information for specific purposes.
- Understand the economic, legal and social issues related to the use of information, and access and use information in an ethical and legal manner.

2.2 Teachers should master the online teaching platform

Master all common functions on the teaching platform, and prepare the instruments, equipment and support software required for class in advance. Otherwise, because the network is not unblocked, the operation is not skilled, the audio and video cannot be played because the software does not support, and the functions that need to be used cannot be displayed to the students, which will cause the teachers to be in a hurry. All their attention will be focused on how to operate the teaching software, resulting in class interruption. At this time, the students' attention will be diverted to do other things, such as watching mobile phones, Chat with others, which affects teaching.

3 Use appropriate teaching methods and strategies

Because online teaching is taught through online video live broadcast, which is very different from face-to-face offline teaching, teachers can't simply think of online teaching as just the form of teaching. The place and space have changed, that is, offline teaching has been changed into online teaching. Teachers need to change the teaching design, teaching methods, teaching strategies and teaching rhythm according to the characteristics of online teaching, so as to stimulate students' interest in learning and avoid losing control of the classroom.

Let's think about the similarities between online games and online learning. They interact and learn through online video. Why can people pay high attention and devote themselves to the game when playing video games, and unless there are highly self-made people in online learning, they will feel no interest and often slip away?

Psychologist Mihaly Csikszentmihalyi’s flow theory holds that if we tend to engage in activities with clear goals and tangible and timely feedback, people will feel their own sense of control over things in the feedback, so that the psychological anxiety when engaging in activities will disappear, and the subject's sense of time will change, I don't feel obvious about the passage of time; At the same time, we constantly encounter obstacles to continuous optimization. Just through the sense of master accumulated gradually, people are willing to complete certain challenging tasks within their ability, and improve their ability to complete obstacles through continuous practice.

3.1 Breakthrough teaching

The reason why people indulge in online games is that online games will give players a clear goal, level by level, timely reward (feedback) and a sense of control of the task. Teachers can use the idea of game to design network teaching, which is breakthrough teaching.

The specific teaching process is as follows (as shown in Fig. 1):
- Classroom learning.
- Release learning materials and customs clearance rules;
- Set questions, from easy to difficult (related to the course content), and students answer questions to break through.
- Teachers teach students in accordance with their aptitude according to their answers, according to the mastery of different students' courses and the absorption of learning contents, teach students in accordance with their aptitude, assign homework after class and upgrade them gradually.
- Students who successfully break through the customs will receive medals.

![Breakthrough teaching model](image1)

**Fig. 1.** Breakthrough teaching model.

### 3.2 Collaborative learning

Student group cooperative learning can make students feel better than their own learning alone, and give students the opportunity to participate in it. It can not only improve students' social and communication skills, but also improve students' critical thinking ability.

Teachers can adopt the competition mode to assign tasks to each student according to the learning objectives and learning contents, so that each student can participate in the classroom, so as to stimulate students' learning enthusiasm and initiative;

Teachers can adopt the ability training mode, give a theme or problem according to the learning objectives and learning contents, and let students design and solve problems according to the learned knowledge, so as to improve students' ability to solve problems and broaden students' thinking;

Teachers can adopt the group cooperation mode, assign tasks according to learning objectives and learning contents, and let students cooperate and help each other in a group way to complete learning tasks together (as shown in Fig. 2).

![Collaborative teaching model](image2)

**Fig. 2.** Collaborative teaching model.
3.3 Discussion learning

Teachers and students actively interact and express their opinions in the form of thematic discussion on a fixed network platform, forming an immersive interactive communication teaching mode.

According to the learning objectives and learning contents, teachers design problems and guide students to participate in the discussion according to the knowledge points to be explained in the course, so as to enable students to integrate into the classroom, activate students' thinking, actively participate in problem thinking and stimulate students' interest in learning.

For discussion (as shown in Fig.3):
- Select learning contents and topics suitable for discussion: topics that are conducive to students' in-depth discussion, in-depth research and further knowledge transfer.
- Assign group members: according to the discussion content, teachers can, according to the students' learning situation, according to the combination of strong-medium-weak, strong-strong or weak-weak, so that everyone can express their own opinions and strive to participate in the discussion.
- In the process of discussion: each group needs a team leader to organize the discussion. The team members record the discussion points, contents and situation of each student. Teachers can observe the students' performance during the discussion, understand whether the students' discussion results are correct and guide them.
- After the discussion: the teacher needs to invite each group to express their views and summarize the discussion contents. The teacher can evaluate the students' performance and guide the students to analyze, compare and summarize the problems discussed.

This can stimulate students' interest in learning, improve students' participation in the course, deepen students' understanding of the course content, and trigger students' in-depth research and insights on a problem. Cultivate students to be good at thinking, expression, independent inquiry ability and logical thinking ability.

![Diagram](image_url)

**Fig. 3.** Discussion teaching model.

Teaching and learning is a process of mutual promotion. Increasing the online interaction between teachers and students can not only improve students' learning ability, urge students to participate in learning and improve students' learning concentration, but also stimulate students' potential, creativity and learning motivation, so as to improve students' learning quality and teachers' Teaching quality.

The work is sponsored by the National Natural Science Foundation of China under Grant No. 61502037.
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