

Application of Blended Teaching Mode of Effective Classroom Instructional Design and PBL Based on BOPPPS

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Abstract:

The effective classroom teaching design based on BOPPPS model, which focuses on cultivating students' all-round participatory learning ability, is a beneficial tool to improve and enhance the teaching effect. As PBL teaching method is student-centered, it not only enables them to acquire theoretical knowledge but also trains their practical ability, communication and cooperation ability. The combination of the two in teaching plays a positive role in arousing students' learning enthusiasm and participation.

Keywords: BOPPPS, PBL, Blended learning, Instructional design.

I. NECESSITY OF CHANGING TRADITIONAL TEACHING MODE

In the 21st century, an era of information globalization, people's ideas, values and lifestyles have undergone tremendous changes, and the importance of talents to social development has become increasingly prominent. Therefore, giving priority to education has become a common choice for education all over the world. Not only the intellectuals trained by traditional education such as theoretical ability and information processing ability are needed, but also the talents who have the ability to solve practical problems are indispensable, especially their cooperation and communication ability, creative thinking ability and independent learning ability, which will gradually become prominent in the process of solving problems. Compared with the needs of social development, the traditional classroom teaching has two problems which are more and more prominent [1]. On the one hand, the traditional classroom model is teacher-oriented. After class, the students' learning effect is not as good as expected in spite of the teacher's vivid and exhausted cramming. The knowledge that the teacher teaches in class will be forgotten after class, and the things that the students remember will not be applied in real life to solve practical problems. To the students, listening in class and writing homework

after class are like completing a task, and of course, they are not interested at all. On the other hand, teachers, as the most important role in the classroom, design and implement the classroom teaching and control the overall rhythm of the classroom. However, in the traditional classroom, most teachers use the templates of teaching materials and reference books, lacking innovation in the teaching process [2, 3].

II. ADVANTAGE OF THE COMBINATION OF BOPPPS MODEL AND PBL TEACHING METHOD

As a student-centered teaching method, PBL teaching method is a process of putting forward, discussing and learning practical problems in a complex and multi-scene design around a topic in the form of student group discussion with the participation and guidance of tutors. The core of this teaching method is to take problems as the center, teachers as guides and students' discussion as the main body. As the teaching philosophy of PBL teaching method is student-centered, it not only enables students to acquire theoretical knowledge, but also exercises their practical ability, communication and cooperation ability, and promotes the improvement of their comprehensive ability, which is in line with the requirements of the present era for education. In the classroom using PBL teaching method, the thinking of traditional teaching is broken, so PBL teaching method is problem-oriented. In the class, the teacher will put forward some complicated problems closely related to life, sometimes some problems with incomplete structure but research significance, while the students mainly learn in the form of self-study and group cooperative learning, and study around specific problems under the guidance of the teacher. In PBL teaching method, students will constantly think about what abilities they currently have and what knowledge and skills they need to master to solve the problems. In this way, in this process, students are clearer about the purpose and direction of learning, and have a stronger interest in learning. They will actively try to get all kinds of information and resources to find information and solve problems, which can fully arouse their interest in learning, increase their participation in learning, stimulate their initiative and creativity to the maximum extent, and greatly promote the cultivation of their true understanding and mastering knowledge and various abilities. In fact, in the information age with rapid development, society needs talents who can face problems independently, learn to study independently and solve problems by themselves.

BOPPPS effective classroom teaching design used to be a teaching process model that was highly respected in the process of teacher skill training in North American universities, that is, to improve teachers' teaching skills and teaching effectiveness through intensive training based on teaching practice. The core of the application of BOPPPS model to efficient teaching lies in two points: one is to emphasize students' all-round participatory learning instead of just

listening, and the second is to obtain feedback from students in time to adjust the follow-up teaching activities in order to achieve the teaching objectives smoothly. Teachers can use this model for reference in the classroom teaching process to fully apply flexible, diverse and intuitive teaching methods, encourage students to actively participate in the teaching process, and enable students to deeply understand and master what they have learned.

Both the BOPPPS teaching model and the PBL teaching method emphasize the student-centered and self-regulated learning, which provides a good foundation for combining the two. Problem-based learning (PBL) focuses on training students' practical ability, communication and cooperation ability, and promotes their comprehensive ability. At the same time, it has its own shortcomings that are difficult to overcome. The BOPPPS model divides classroom teaching into six stages, namely introduction, objectives, pretesting, participatory learning, post-testing and summary, which can effectively prevent the short board of PBL. The two can complement each other in content and perfect each other. Therefore, the model of combining the BOPPPS teaching model with the PBL teaching method can greatly promote the improvement of students' learning quality.

III. APPLICATION OF THE COMBINATION OF BOPPPS TEACHING MODEL AND PBL TEACHING METHOD

The survey data from some relevant institutions prove that the traditional teaching methods of listening, watching and displaying have very low absorption rate for students, while the absorption rate for students can be increased to 90% through group discussion, practical exercises and immediate application through the teaching method of PBL. The design and application of effective classroom teaching process combined with "PBL" teaching method are as follows.

3.1 Introduction

In addition to reviewing the course, the introduction can naturally introduce topics from common things in life and recent hot topics, such as showing short films or pictures, introducing stories related to the topics, providing some unusual data, and putting forward some controversial topics to arouse students' attention. As the introduction is to prepare for the next step of setting learning goals, it is important to pay attention to strategies.

3.2 Learning Objectives

The learning task is to make the students understand the degree of knowledge they should

master after finishing the class by issuing clear learning objectives, so its position is indispensable. In the process of setting learning goals, behavioral verbs should be used more to facilitate students' understanding and implementation. For example, “description” is often used in the primary stage of cognition, “application” is often used in the advanced stage of cognition, and “design” is often used to describe the goals in the professional stage of cognition. Moreover, specific, measurable, achievable and deadline must be specified so as to avoid students' ignorance of the tasks to be completed.

3.3 Knowledge Pretesting

The reason for the pretesting is to effectively understand the students' interest points and ability, especially the related knowledge reserve, and then to adjust the depth and progress of the course in a targeted way, to understand the available student resources, and to make adequate preparations for the next step of “participatory learning”.

3.4 PBL Teaching

Participatory learning is the key and effective link to realize teaching efficiency. In the new era background, the classroom teaching mode should be designed to create a classroom where students can acquire knowledge and cultivate skills simultaneously. It is no longer the most important mission for teachers to impart knowledge. They should also work out a better way to mobilize students' learning initiative, believe and recognize their learning ability, and create a living teaching environment, and then create a democratic, harmonious and tolerant classroom atmosphere, making their learning easier, lively and interesting. PBL teaching method came into being at the historic moment, which makes students “independent, cooperative and inquiry”. Students take problems as the starting point of learning, carry out learning activities around problems, master relevant knowledge through problem solving, exercise autonomous learning ability, solve problems and develop thinking ability. Commonly used interactive skills of participatory teaching include: on-site help-seeking, one-minute report, group discussion, debate, case study, brainstorming, carousel, smart site, etc. One of the most important tasks for teachers in PBL teaching method is to create “teaching situations” to elicit the problems that students are required to solve, because only the situations that are closely related to knowledge, eye-catching and can attract students to put in emotion and make deep impression can arouse their attention, stimulate their emotion, arouse their interest in solving problems and help them understand the connotation and essence of knowledge.

3.4.1 Single class teaching

Because the traditional “large class system” is restricted by teaching space and time, teachers cannot pay attention to each student, which cannot fully meet the requirements of teaching reform and should be replaced by “single class system”. According to the “PBL” teaching concept, extensive teacher-student communication and close interaction classroom teaching discussion will be conducted according to specific application problems and application scenarios, and group discussion is the most commonly used method. In order to avoid the great difference in the degree of knowledge mastered by the members of the group, the students in the group should be divided into groups according to their scores, and then the teachers should make final adjustments according to the actual situation, so as to avoid the phenomenon that the results of the group discussion are not satisfactory due to the concentration of boys and the relative weakness in individual groups. Teamwork is very important in group discussions, so having a strong team leader to coordinate with the leaders in the group is an effective guarantee for the successful completion of the group discussions. Just like a director, he should know the projects and issues well and then assign each student a proper role. In order to successfully complete the whole project or topic, it is the basic guarantee for students to perform their duties in their posts. If the team leader has insufficient leadership ability and lacks overall planning for the whole project, the project may eventually fail to be completed due to mistakes, so teachers should ensure that the team leader should be those with ability during the election campaign. Under the leadership of a good team leader, team members should do their part to complete the project well. In the teaching process of PBL, some students may not cooperate very well and some links may not be completed very well, thus affecting the final presentation of the whole project. Teachers should link the individual performance of each team member with the individual score and the overall score of the group, so as to put some pressure on the team members so that other team members can help to urge them to complete the part of the project and form a closed loop of effective supervision.

3.4.2 “Half-flipped” “pbl” organizational form of teaching

Although the “PBL” teaching concept advocates students' autonomous learning before class and carries out flipped class teaching, it may involve multi-disciplinary parallel transformation as well as the comprehensive use of multi-disciplinary knowledge such as integrating theory with practice for professional courses. As beginners, students may not be able to cope with the depth and breadth of knowledge points. Therefore, the “half-flipped” classroom form with the participation of teachers is advocated, which is to retain the original teacher's construction and combing of the knowledge system and directly build a complete knowledge structure for students. Then, the students are assigned with comprehensive and applied problems, and are allowed to carry out autonomous learning with problem-solving as the core, and then “flipped classroom” communication is carried out to strengthen the learning effect, to avoid the

phenomenon that the teaching methods are formalistic and unable to achieve the learning objectives due to insufficient supervision by teachers.

3.4.3 Task-oriented teaching

The greatest advantage of the problem-oriented teaching method is that it can enable students to directly face specific practical problems and solve them, which can stimulate their sense of achievement, motivate them to take the initiative to carry out inquiry learning, and cultivate their ability to think independently and acquire knowledge independently. For example, before teaching the internal control of enterprises, reading the classic *A Dream of Red Mansions* will be the task. By analyzing Wang Xifeng's governance of Jia Family, students will carefully analyze the important influence of the five elements of internal control on the normal operation of enterprises.

IV. POST-TESTING

Post-test is to understand what the students have learned, as a link to test whether the learning effect can be achieved. Then, how to test the students' mastery of learning objectives by participating in PBL teaching method? There are four types of tests: knowledge-based, application-oriented, skill-based and attitude-based. Knowledge-based test mainly tests the mastery of learning objectives through multiple-choice questions, true-false questions, short-answer questions or comprehensive analysis questions. Application-oriented test mainly analyzes the degree of problem solving in specific situations to test the mastery of objectives. Skill-based test can test the mastery degree of the target by students' presentation of homework. Attitude-based test can test the mastery of goals by writing experiences, logs and notes. Obviously, the post-testing of skill-based and attitude-based types will be more representative. Besides, the results presentation can satisfy the students' sense of achievement, such as PPT, VCR, sitcom, investigation report, achievement wall, poster, internet release, etc.

V. SUMMARY

Summary is composed of teacher's summary and student's feedback, in which the teacher mainly reviews the summary, assigns homework, realizes learning extension, and helps students integrate relevant knowledge in the classroom through PBL teaching method, so it is also the node that can most arouse students' reflection. In addition, teachers should also point out areas where students can improve, and give more recognition and praise to students' efforts and achievements. The feedback from students can be summarized in the form of one-minute report and experience, report doubts, in order to better prepare for accepting PBL

teaching.

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