

## Advice on Effective Teaching Design based on BOPPPS Model

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**Abstract.** The BOPPPS model consists of six elements, including bridge in, learning objective, pre-test, participatory learning, post-assessment and summary. For the implementation of BOPPPS model can have a better teaching effect, authors suggested that pay attention to after class, flexible use of various teaching methods, the use of multi-channel in-depth interaction and the construction of a harmonious relationship between teachers and students.

### Introduction

For most young teachers who have just started their careers in college, they can not achieve better teaching results because of the lack of teaching theory and teaching experience, although they have the very high degree and rich in knowledge. This phenomenon often occurs in class that the young teacher gave a lecture with great enthusiasm, and the students do not know what the teacher talk about. Many teachers want to change this situation, but do not know where to start. The BOPPPS model can help young teachers with better teaching design. The BOPPPS model is a model of teaching that is promoted in instructional skills workshop (ISW) skills training and was first adopted by University of British Columbia in 1979. In recent years, it has become one of the teaching models praised by many universities in North America. It is a teaching process design based on the cognitive theory of human in pedagogy. The primary goal of the BOPPPS model is to highlight the effectiveness of classroom teaching, highlight the students' main status and allows students to truly become masters of the classroom. BOPPPS model allows students to fully enjoy the fun brought about depth of participation in the classroom and enhance students' sense of self-efficacy.

### Overview of the BOPPPS Model

The BOPPPS model divides the whole teaching process into 6 stages, which is respectively bridge in, learning objective, pre-test, participatory learning, post-assessment and summary. Bridge in aim to attract attention of students and make sure that the students and learning content are connected, learning objective aim to clear teaching objectives and let students know what they should do after they have completed their studies, pre-test aim to test the students, understand the students' knowledge base, and prepare for the follow-up teaching, participatory learning is the main body part of classroom teaching, its purpose is design a series of teaching activities, post-assessment aim to check to see if the student meets the teaching goals and to inspect the students' learning effect, summary aim to review what you have learned. From the perspective of teaching organization and implementation, the BOPPPS model follows the teaching cycle process which follows the teaching goal, teaching behavior, learning activity, teaching evaluation and teaching goal. The BOPPPS model enables teachers to effectively organize classroom teaching and obtain feedback information. On the other hand, from the goal of cultivating computational thinking, this model is a very good tool to cultivate the computational thinking, because it can help students to analyze problems, to explore learning difficulties, learning how to reflect the ability of the blind spot and so on.

## Advice on Using BOPPPS Model

In recent years, in the teaching practice based on the BOPPPS model, the authors gradually form a teaching mode which is a learner centered, taking ability as the core and teaching activities focused. The BOPPPS model has greatly improved the quality of teaching. In order to achieve the effective teaching design, there are several advices for your reference.

**Pay Attention to after Class.** Although the classroom teaching based on the BOPPPS model does not mention the after class teaching, I found that it was still a very important part of the actual teaching process through the application of the BOPPPS model in teaching practice. There are two main reasons. One is that it is difficult to complete a teaching task in a given time due to the restriction of teaching hours. The other is that the interaction in the classroom is not ideal due to lack of after class preparation. That is to say, most students are not able to participate in the discussion because of the lack of knowledge, and even if they can participate, the depth is not enough. In order to solve these two problems, it is necessary to complete the process of simple knowledge memory in after class, and the deep level application and analysis process should be completed in class and under the guidance of the teacher. This requires teachers to do a good job of teaching preparation, purposeful assignment of pre class tasks, and lay a good foundation for the efficient application of BOPPPS model in class. To arrange what content students are required to complete in after class so that they can do well in knowledge storage.

**Flexible use of a Variety of Teaching Methods.** The traditional classroom is mainly based on theoretical indoctrination, focusing on the principles and methods as the main teaching objectives, emphasizing textbook knowledge and teacher authority, the ideas and methods of this kind of teaching is difficult to mobilize the enthusiasm of students. The classroom of BOPPPS model is different from the traditional cramming classroom. It emphasizes the dominant position of students, and focuses on participatory interaction, and tries to create a new form of classroom teaching with various forms and active atmosphere. Participatory interaction allows students to participate in the classroom as much as possible, so that students' learning potential can be fully played and demonstrated. Good participatory interaction requires the use of teaching methods to organize. Different teaching methods will be different teaching effect. The correct choice of teaching method can yield twice the result with half the effort. Therefore, in the course of teaching, we can organize the classroom teaching by using various teaching methods according to our teaching objectives and teaching content, such as, brainstorming, think-Pair-Share, Jigsaw, one-minute paper, PBL teaching method, Group discussion method, etc, one - minute paper is a great way to improve learning enthusiasm, and think - Pair Share can further deepen students' understanding and knowledge of the issues discussed. In the process of teaching we can use various kinds of teaching organization methods, so as to full play to the advantages of different teaching methods, to arouse students' interest in learning, stimulate their active thinking, change their way of thinking, and actively participate in the course of the learning process.

**Multi-Level and In-Depth Interaction.** Today's teaching focuses on cultivating students' analytical problems, problem-solving and creative ability, so it is essential to have a multi-level in-depth interaction in the classroom. There are three ways to achieve multiple levels of deep interaction. First, the knowledge can be related to life examples, and enhance perceptual knowledge. The boring theoretical study is boring, often cannot interest, the student also can not know where the knowledge of learning can be used. If the knowledge can be connected with the real life, then we can let the students know that their learning is not an empty theory. It exists in our life and can solve many practical problems. Second, to the classroom, experiment, after class activities are closely linked together, this kind of interactive teaching method is more popular with teachers and students. In the theoretical teaching, experiment plays an irreplaceable role, the experiment can deepen the understanding of theoretical knowledge and validation. In fact, experiment has another function, is to improve students' ability of analysis problem, solving problem and innovation. In view of this, the after class can design some open experiments, let students own brains, hands-on to complete. In the course of teaching, if we can combine the classroom, experiment and after class activities, it will greatly promote deep interaction. Third, the combination of classroom teaching and scientific research can promote deep interaction, thus improving the quality of

personnel training. The teacher skillfully introduces his research subject into the classroom, which enables the students to understand the frontier knowledge, understand the ways and means of scientific research and solve problems, so as to achieve deep interaction and effective teaching. Teachers can also encourage students to apply for research projects and college student's innovation research project, obtain funding for projects, and enhance the quality of personnel training.

**Construct Harmonious Teacher-Student Relationship and Improve the Efficiency of Teaching.**

Modern pedagogy points out that the new teacher-student relationship should be harmonious, and teachers and students should be equal. Years of teaching makes me feel if a harmonious relationship between teachers and students, students learn voluntarily, rather than being forced to learn, will to exchange ideas with their teachers, the classroom atmosphere is more relaxed, the teaching efficiency is high, so I think it is necessary to establish a good relationship between teachers and students. There are several aspects of building a harmonious relationship between teachers and students for your reference. One, teachers should strengthen self-cultivation, improve the quality of teachers' ethics and teaching ability, with noble character and excellent quality to infect students, conquer students. Two, teachers should change their roles. In quality education, teachers are no longer soloist, but should be accompaniment, the center of the stage should be students, the teacher's primary task is to stimulate students' interest in learning, rather than the supervisor of the students. Three, teachers should love, care for and help students. We can pay attention to each student's study and life in daily life, help them to solve the difficulty as soon as possible, understand their interest and hobby, so as to better prepare for the teaching. Four, we must always encourage and respect students, and we believe that respect is more important than love. Because respect for students, students can feel the equality of teachers and students, in order to feel the presence of self-esteem.

**Be flexible and Avoid Moving in the Form.** In teaching practice, classroom activities should not be allowed to become a mere formality. In teaching practice, classroom activities should not be allowed to become mere formality, some of the activities only specious writing and the lack of substantive content and the real depth of participation in the classroom should be let students the heartbeat movement and motion. The order of the six stages of the BOPPPS model can also be flexibly configured according to the specific teaching objectives and teaching content. According to the teaching content the teachers naturally BOPPPS model into the teaching design, classroom teaching activities can not be rigid, which makes the design of classroom teaching is limited to a fixed framework or model, misunderstanding of teaching organization form.

## Summary

Teaching practice shows that BOPPPS is a good teaching model in teaching. The proper use of strategies can really reflect the students' subjective status, and further interactive, and create a harmonious learning atmosphere. For the implementation of BOPPPS model can have a better teaching effect, authors suggested that pay attention to after class, flexible use of various teaching methods, the use of multi-channel in-depth interaction and the construction of a harmonious relationship between teachers and students.

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