

Research on the Application of BOPPPS Teaching Mode in the Interactive Integration of Online and Offline Teaching in Colleges and Universities During Post-Epidemic Period

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ABSTRACT

BOPPPS (namely “Bridge-in, Objective, Pre-assessment, Participatory Learning, Post-assessment, and Summary”) teaching mode, a new and effective teaching mode from Canada, covers six modules of bridge-in, objective, pre-assessment, participatory learning, post-assessment and summary. It fully embodies the teaching philosophy of student-centered and student-participatory learning. The teaching mode can be employed in the online and offline teaching in universities during post-epidemic period to better students' participation in real-time classroom interaction and learning enthusiasm, so as to improve the systematicness and effectiveness of classroom teaching. It also provides insight for the reform of online and offline teaching in universities, serving as an effective way to improve teaching quality.

Keywords: post-epidemic period, BOPPPS, online and offline

I. INTRODUCTION

The year 2020 witnessed a novel coronavirus outbreak that disrupted everyone's life. Given the problems coming along, colleges and universities actively implemented *Guidance on The Organization and Management of Online Education in Institutions of Higher Learning during the Epidemic Prevention and Control Period* by Ministry of Education. Online teaching with various forms was conducted by virtue of information technology to ensure regular teaching plan in line with the principles of "teaching without suspension, and learning without suspension". As the epidemic across China has been basically brought under control, campus prevention and control measures have been put in place, and the public health and safety of teachers and students has been effectively guaranteed, more and more colleges and universities have allowed students to come back in an orderly manner and at staggered hours. Therefore, how to ensure the seamless connection and real-time interaction between online and offline teaching in post-epidemic period has become a

challenge for universities.

II. REVIEW OF RELEVANT STUDIES INSIDE AND OUTSIDE CHINA

A. Review of relevant studies inside China

The BOPPPS teaching mode was first proposed by Douglas Kerr of University of British Columbia (UBC) in 1978. Since then, it has been widely applied in skill training for school teacher in Canada and many other countries, especially in the teaching of core skills concerning teaching design for frontline teachers thanks to its conciseness and ease to use. Although BOPPPS put forward in 1978 enjoys a history of more than 30 years, it was not introduced and implemented in mainland China until recently with Department of Faculty Affairs & Faculty Development of Beijing Normal University being the pioneer. In recent years, over 300 papers on BOPPPS are published in core foreign language journals and national and provincial journals in China. *Connotation and Analysis on BOPPPS Teaching Mode* published in 2018 by Zhou Wei, *On the Effective Classroom Teaching Design Based on BOPPPS Model* published in 2016 by Zhang Jianxun, and *Canada's BOPPPS Teaching Model and Its Implications for Higher Education Reform* published in 2016 by Cao Danping are typical examples. The analysis of above literature reveals that studies on

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BOPPPS are dominated by theoretical analysis of the six modules it contains and its application in classroom teaching design. However, its application in online and offline practice is rarely studied, especially the interactive integration.

B. Review of relevant studies outside China

BOPPPS, the teaching mode advocated by universities in North America, emphasizes students' participation and feedback. It has been introduced and adopted in more than 33 countries and endorsed by over 100 universities and industrial training institutions, which proves its "efficiency", "effectiveness" and its role in promoting students' participation in classroom learning. This mode consists of B (bridge-in), O (objective), P (pre-assessment), P (participatory learning), P (post-assessment), and S (summary). The student-oriented concept has been fully demonstrated, as well as links among online and offline teaching.

Review of relevant studies inside and outside China reflects that relevant studies starts earlier outside China, where a standardized teaching system has basically formed with researches dominated by change from quantitative to qualitative. However, China as a latecomer focuses on the study of theory and teaching design of offline course. Therefore, it is imperative to study the application of BOPPPS teaching mode into online and offline teaching in universities.

III. RESEARCH CONTENT

A. The following six elements constitute BOPPPS teaching mode

Bridge-in: The purpose of this stage is to arouse students' learning motivation, attract their attention, and let them prepare for what the teacher will introduce. Therefore, teachers can explain to students the reasons for taking the course, utilize theme-related stories, quotes or personal examples, and guide students into the course by virtue of relevant questions.

Objective: The objective mainly consists of cognition, emotion and skill. At this stage, learning objectives should be clearly listed to help students understand the learning focus, knowledge, value and ability. Therefore, the teacher should inform students with what can be learned through the course, teaching methods and evaluation methods adopted by teacher.

Pre-assessment: Pre-assessment can be employed to help teachers understand students' knowledge reserve and adjust teaching content, and help students express their needs for review. Pre-assessment can be done with questions, exams, or assignments.

Participatory learning: Interactivity during curriculum is essential to simulating students' learning motivation. Teachers are required to well utilize

teaching strategies to increase interaction between teachers and students, or among teachers. Group discussions, brainstorming, reflective questions, and simulated situations can all be adopted to encourage students to speak.

Post-assessment: Post-assessment is necessary when a small unit or paragraph is completed to check students' learning effect and whether the learning goal has been achieved. The specific methods vary according to the content or nature of the course. Examination papers, oral presentations, checklists, paper reports or questionnaires are all available.

Summary: This is the last stage in which teachers need to integrate the course content and help students to summarize main points. Feedback can be given to students with post-assessment results. Teachers can also speak directly to help students review key points.

Combined with the features of the six elements of BOPPPS teaching mode, this paper studies the all-round and multi-level teaching needs faced by universities after the resumption of classes in the post-epidemic period. All schools are required to classify all the work, courses and subjects involved in teaching in detail, gradually transfer online teaching to offline teaching, and enhance the pertinence and operability of online and offline teaching.

B. Teaching objective

Based on the six elements mentioned above, the differences between online learning effect and offline learning ability of students in the post-epidemic period should be fully taken into account, and different preparations should be made for different types of knowledge, so as to improve the timeliness of integrated teaching. Online and offline integrated teaching should focus on the guiding of students to learn and apply various organs such as eyes, brain, hands, mouth and ears to learning, so as to truly realize the transformation from knowledge to ability and ensure teaching quality.

IV. RESEARCH PROPOSAL

A. Research idea

The idea of "putting forward problems, analyzing problems, and solving problems" has been adopted. The first is how should universities realize the integration between online teaching in the epidemic prevention and control period and offline teaching in post-epidemic period? Secondly, online teaching is far from being mature. In particular, changes in students' rest, attention, habits and environment under the epidemic prevention and control have led to unsatisfactory online learning effect, which in turn crippled offline teaching after the resumption of classes. Therefore, it is

necessary to study the ways and methods of improving the integration of online and offline teaching. The six elements of BOPPPS teaching mode should be applied to integrate all links of teaching, and explore the existing problems of online and offline teaching and corresponding countermeasures from the micro perspective. Finally, the characteristics of six elements of BOPPPS teaching mode are combined for teaching.

B (bridge-in): When teaching online, teachers should value the teaching design, quality of teaching materials and introduction before class, so as to help students internalize knowledge, and conduct heuristic teaching.

O (objective): Online learning objectives and offline teaching objectives should be clearly formulated from three aspects of cognition, emotion and skill, and the requirements and levels that students should achieve should also be pointed out.

P (pre-assessment): By issuing online questionnaires, offline simple tests and interviews, students' learning situation, learning effects and learning differences can be obtained.

P (participatory learning): Teaching content presentation, teacher-student interaction and practical operation can create an offline teaching environment integrating interest and knowledge for students, and inquiry-based teaching can be carried out by case teaching, simulation teaching and game teaching, etc.

P (post-assessment): Various forms of assessment methods, evaluation systems and test forms can be applied, so that students can have a more intuitive understanding of their online learning effects through testing, self-evaluation and mutual evaluation.

S (summary): With the help of the above teaching data and feedback, teachers can objectively evaluate their own teaching effect and students' learning effect, and assign preview items for new lessons.

As a result, given the special period of epidemic prevention and control, the six elements of BOPPPS teaching mode, focusing on students' knowledge acquisition in the learning process, allow the research on the application of online and offline teaching in colleges and universities to carry out effectively.

B. Promotional value

1) Strong theoretical significance: Based on BOPPPS teaching mode, this paper analyzes and studies the problems encountered by online teaching in colleges and universities in the post-epidemic period in combination with constructivism theory, task-driven theory, cooperative learning theory and other relevant theories, and emphasizes that online teaching in colleges and universities should focus on cultivating

students' initiative in learning and the urgency and importance of effective learning. The effective connection between offline and online teaching is implemented to ensure the continuity, standardization and innovation of teaching and truly realize the modernization of college teaching in the era of "Internet +".

2) Feasible practical significance: This paper is helpful to further standardize the input of online teaching in colleges and universities, integrate and optimize the resources on online platform to enrich online teaching resources, and strengthen the reform of online courses. Meanwhile, the effective and seamless connection between offline and online courses should be guaranteed. The curriculum setting and offline teaching guidance of colleges and universities will be improved to reasonably classify online and offline courses and ensure the efficiency and interactivity of teaching. The whole process and systematic teaching guidance can also be established to strengthen the training of online and offline teachers, and then gradually improve the education and teaching reform guidance system in colleges and universities.

V. CONCLUSION

Colleges and universities should fully utilize the advantages of online teaching in data collection, and make the "dead" data useful to reflect the teaching quality objectively and accurately in combination with their own reality. Technical support team should be set up in time to form a three-dimensional guidance service, which can timely answer relevant questions and effectively help teachers and students to carry out online and offline teaching.

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