

## PROCEEDINGS ARTICLE

# Exploration and Prospects of Layered Participatory Teaching to Teaching and Learning in Comprehensive English Courses Based on the BOPPPS Model

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## ABSTRACT

During the New Coronary Pneumonia outbreak prevention and control, Chinese universities have been offering courses based on online teaching platforms as required by the Ministry of Education. And the release of the new English curriculum standards (2017) implies a corresponding increase in the demand for students' language skills in the education session. To realize effective teaching online and at the same time better address the issues of personalized learning, teaching according to student's abilities, and improving learning efficiency in traditional classrooms, teachers use effective teaching theory as a guide and an online app as a platform to try to build a teaching model based on the BOPPPS model of layered-participatory teaching method in Comprehensive English courses. The aim is to provide scientific and systematic theoretical support and reference for the teaching of Comprehensive English courses.

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## 1. INTRODUCTION

At the start of 2020, a sudden outbreak of novel coronavirus pneumonia swept the world and as of 27 January 2021, more than 100 million people worldwide have been infected [1]. Schools are crowded and exposed places where infection can spread over a large area. To protect students from the epidemic, regional education commissions and universities have responded to the request of the Ministry of Education of China by implementing measures such as "delaying the start of school" and "suspending classes without stopping school" during the epidemic, as well as taking into account the actual situation of their schools. Compared to face-to-face classes, online teaching is not the mainstream mode of teaching, as it makes it difficult to monitor the classroom and communicate with students. In the long term, however, this contingency is not a matter of equity, and online teaching could be transformed into a complement to offline teaching. Furthermore, studies have shown that under the guidance of the

BOPPPS teaching model, combining online and offline learning methods [2] has become an inevitable trend to maximize teaching efficiency, providing theoretical and empirical support to improve existing education and implement teaching reforms.

With the promulgation of the New English Curriculum Standards (2017), more and more attention is being paid to students' basic language skills. What is more important is their ability to learn, their ability to think, and their cultural awareness. In this context, higher expectations and demands are being placed on students' English language proficiency. In traditional English classes, the teacher acts as an authority, teaching students only the usual methods and ignoring their individuality and personal differences. The principle of one-size-fits-all teaching is usually applied, rather than teaching to the individual. In other words, many use a uniform teaching plan, use the same objectives and content, and make similar assessments for all students. As a result, in such teacher-driven classrooms, higher-level students

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often find the task easy to complete and quickly lose interest. For less advanced students, the same task may become too difficult because of their weak foundation and lack of knowledge, as a result, they gradually lose confidence. Under these circumstances, students are less motivated to participate in class and often feel bored in English reading lessons. At the same time, teachers pay little attention to their students and there is little interaction and contact between them. These are typical phenomena that lead to low efficiency and low engagement in regular lessons and do not meet the requirements of the New English Curriculum Standards (2017). How to tailor teaching to student's needs and improve their learning efficiency and engagement is therefore a serious problem faced in the process of reforming English teaching methods.

The Layered Teaching [3] is an important means of teaching students according to their abilities, which allows for diverse teaching and differentiated management according to the characteristics of each student, differentiating teaching objectives, teaching processes, classroom exercises, extra-curricular tutorials, and teaching assessments, and providing classroom teaching for the all-round development of each student. The Participatory Teaching largely avoids the traditional teacher's "one-word" approach to the teaching process, arranges and designs students' favorite classroom learning activities based on their basic demands and learning ideas, guides them in their thinking, gives full play to their subject position, respects their wishes to the greatest extent, and stimulates their motivation in a democratic, egalitarian and friendly classroom atmosphere. The classroom atmosphere stimulates students' motivation and encourages them to participate actively in classroom activities. The Layered Participatory Teaching [4], then, is one of the effective ways for teachers to differentiate between students, to effectively cultivate and stimulate the subjectivity and participation of students at all levels, to guide students to engage in independent learning, to actively explore and to gain intrinsic motivation for learning, to ensure the subjectivity of students at different levels, and to make the classroom more dynamic. The BOPPPS model is known for its effective teaching and learning, based on constructivist and communicative approaches, and is a closed-loop model of teaching and learning activities that emphasizes student participation and feedback in the organization of the classroom. In simple terms, this means active participation and timely feedback. There are six segments including Bridge-In, Objective, Pre-Assessment, Participatory Learning, Post-Assessment and Summary [5]. BOPPPS has become a popular teaching model and is highly respected by schools and

training institutions. In recent years, a variety of new teaching models and methods have sprung up at home and abroad. American linguists Richard Donato and Bonnie Adair-Hauck proposed the PACE teaching model, which advocates a teacher-led, teacher-student model of grammar teaching. According to the study, most of the subjects were positive about the PACE model, while a small number of them were negative. This is related to individual differences in the subjects' intelligence, learning methods, and learning preferences. The ARCS model of motivation was developed by John M. Keller, professor of psychology at Florida State University, and has received attention from a variety of educational experts and scholars since its inception. The model analyses the teaching process and students in terms of A – Attention, C – Confidence, S – Satisfaction, and R – Relevance, and does not focus too much on the joint integration of differences and engagement of students. Teaching methods include cooperative learning approach, layered teaching, and experiential teaching method. All of these teaching models or methods have proved useful in improving and enhancing teaching and learning, and the findings enhance the feasibility and effectiveness of integrating the BOPPPS model and The Layered Participatory Teaching.

## **2. THE THEORETICAL BASIS OF THE BOPPPS MODEL AND LAYERED PARTICIPATORY TEACHING**

Originally developed by Douglas Kerr's team in 1976 [6], BOPPPS was created by the ISW (Canadian Teachers' Skills Training Workshop) in response to teacher qualifications in British Columbia, Canada [7]. It is an intensive, hands-on approach to improving teachers' skills and teaching effectiveness. It is a model of the teaching and learning process that is favored in North American university teacher training, with six interrelated segments that interact with each other, all of which serve the teaching objectives and emphasize the interaction between teacher and student to make the whole classroom more effective and efficient. Specifically, and separately: Bridge-In means starting a new topic based on student's prior knowledge and linking the new topic to their previous knowledge in order to stimulate their interest and motivation. The aim is to clarify the present learning objectives and to help students understand the learning task. For stem learners, establishing learning objectives can help students to take control of their learning and increase their motivation. For methods of goal setting, teachers can refer to Bloom's taxonomy to set appropriate goals for their students. The purpose of the "Pre-

Assessment" is to get a basic understanding of students' learning interests and prior knowledge, to modify the difficulty and pace of subsequent steps, and to bring the course objectives into focus. For teachers, it helps them to understand the interests and abilities of their students, thus informing the depth and breadth of instruction. For students, "Pre-Assessment" helps them to accurately communicate information about their background knowledge. This process can be done through quick quizzes, true-false questions, brainstorming, etc. The "Pre-Assessment" must correspond to the learning objectives previously set and must not deviate from the instructional objectives. Participatory Teaching plays an important role in increasing student engagement. It stimulates interaction between teachers and students, with group activities and collaboration to accommodate diverse learning objectives. Student-centered, teachers should not dominate teaching and learning. The purpose of post-testing is to test students' performance and to see whether they have completed the learning and teaching objectives of the course at the end of the course. This process is also key to facilitating the design, improvement, and refinement of the teaching and learning program, summarizing the strengths of the lesson, and preparing for future

lessons. There should be different methods of assessment for different course content. Summarizing is a comprehensive review of the content and language points learned and taught in the lesson, which can further consolidate teaching objectives, help students integrate their learning, guide them in reflecting on the content, arrange for extended reflection and subsequent lesson announcements, etc. Class summaries serve as a legacy. In other words, the teacher guides students in summarizing what they have learned, integrating learning points, assigning homework, previewing content, and making the necessary preparations for the next lesson. The model has been introduced in more than 33 countries worldwide and is widely used in over 100 universities and training institutions worldwide, demonstrating that BOPPPS is a "triple" teaching model, i.e. "effective", "efficient" and "productive". The BOPPPS teaching model has already been introduced in China, but it is more of a summary of experience combined with the actual curriculum [8]. The BOPPPS model (Fig. 1), with its emphasis on in-depth teacher teaching and student participation, is particularly relevant in an environment where many students have been unable to return to school in the recent epidemic-inflicted university season.

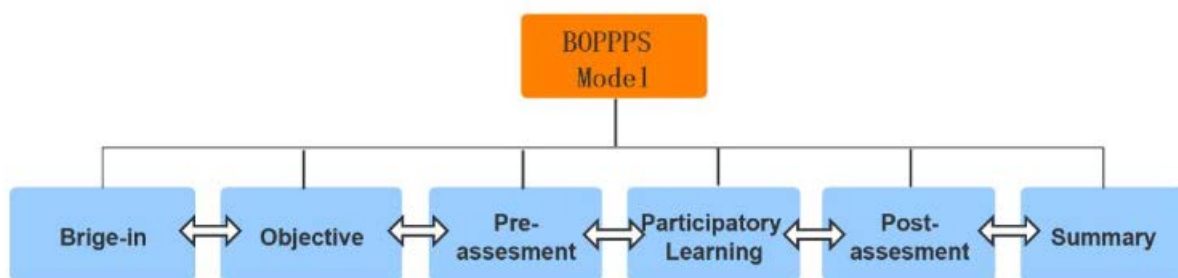


Figure 1. The BOPPPS Model.

Like the BOPPPS model, The Layered Participatory Teaching is based on a constructivism, mastering three theories, namely Learning Theory, Humanism, and the Zone of Proximal Development. One of the two main aspects of The Layered Participatory Teaching is the emphasis on individual differences between students and the achievement of optimal development for each student. In the classroom, the teacher interprets the results of relevant knowledge tests according to the differences in students' interest, motivation, receptivity, and learning ability. The teacher then divides the students into different levels of teaching according to the results, as reflected in the teaching objectives, teaching content, classroom guidance, and homework stratification. Secondly, The Layered Participatory Teaching also emphasizes the

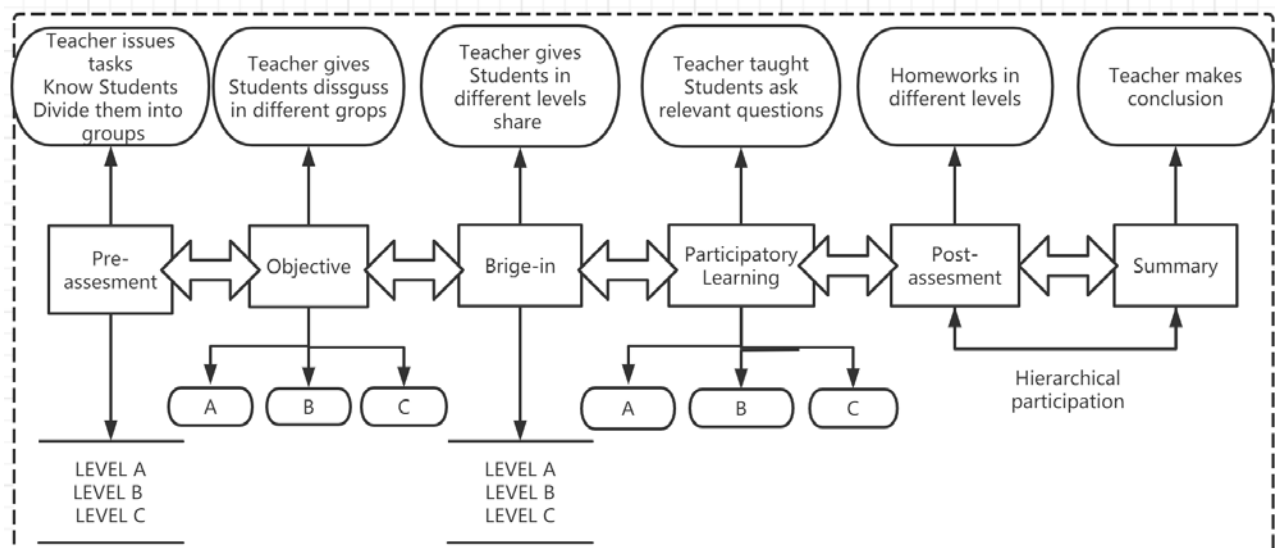
holistic development of students. The student-centered approach aims to guide and develop students' ability to think and learn actively. It creates a positive teaching and learning environment, organizes diverse classes, solves problems, and provides opportunities for students at all levels to participate in classroom learning. More specifically, in the Layered Teaching, the teacher first secretly divides the students into three levels: Level A, Level B, and Level C [9]. Firstly, Level A students are those who have done sufficient pre-reading work before class and can understand the content of the text smoothly and accumulate proper nouns independently; Level B students are those who have done pre-reading work before class, but the pre-reading is incomplete, imperfect and has gaps, and

have some difficulties in understanding the text and the related proper nouns; Level C students are those who have neither relevant background knowledge nor the ability to understand the text and vocabulary on their own. The content and direction of the next lesson are determined by the differences between these three different levels of students, both in the 'Objective' phase before the lesson and in the 'Summary' phase after the lesson. According to the "Objective" stage, students of different grades A, B, and C can choose their own objectives according to their own situation under the guidance of the teacher, so that students of different grades can participate in the setting of teaching objectives as far as possible. In the 'Summary' stage, teachers can arrange different after-school assignments for groups A, B, and C, and carry out analyses and summaries, and statistics on the effectiveness of learning after the lesson, in order to promote the overall development of students. This is a good way of applying the system to online teaching and learning, as well as a reference for offline classes in the future when the epidemic improves.

### **3. CONSTRUCTION AND IMPLEMENTATION OF THE LAYERED-PARTICIPATORY TEACHING APPROACH IN A COMPREHENSIVE ENGLISH COURSE BASED ON THE BOPPPS MODEL**

Both the BOPPPS model and The Layered Participatory Teaching aim to improve effectiveness of students' online learning. Classes are organized and there is a two-way interaction between teacher and student, with a 'recorded broadcast + online Q&A' format to help students adapt more quickly to the emerging classroom. In fact, not all six segments of BOPPPS have to be fully layered participatory, where the 'Pre-Assessment' can be done unilaterally by the teacher, and the 'Introduction' is done jointly by the teacher and the students. There is no need to group the students at this stage, only to ensure that they participate effectively. "The two segments of 'Post-Testing' and 'Summarizing' can be combined with each other, while the rest of the segments require in-depth implementation of The Layered Participatory Teaching to achieve the fundamental aim. BOPPPS is based on constructivism [10], which is a view of learning guided by constructivist learning theory: students do not simply receive information passively, but actively select, process and handle external information according to their own experiential background, and they construct their own knowledge. The transfer of knowledge is accomplished through

the use of a variety of teaching resources in the classroom, while in the classroom the focus is on the understanding and internalization of knowledge and the interaction between teachers and students to achieve this goal. In this article, the six structures of the BOPPPS model will be retained, but the order of the six components will be adjusted in a miniature way to enhance the feasibility and effectiveness of The Layered Participatory Teaching: "Bridge-In" "Objective" "Pre-Assessment" "Participatory Learning" "Post-Assessment" and "Summary" will be changed into "Pre-Assessment" "Objective" "Bridge-In" "Participatory Learning" "Post-Assessment" and "Summary" (Fig. 2). The main elements of "Pre-Assessment" are that the teacher issues tasks, knows the background of students and divides them into different groups. In this process, the teacher can divide students into three levels: A, B and C. In the "Objective" stage, students have already divided into group A, group B and group C. Then the teacher gives the main mission to students and students will have a discussion in different groups. In the process of "Bridge-In" the teacher introduces some samples and students from three different levels will share their examples or opinions. During the "Participatory Learning" stage the teacher taught the main knowledge of the course and students from groups A, B and C could ask relevant questions. In the 'Post-Assessment' and 'Summary' phases, although there is no explicit ABC grouping, principles of the stratified-participatory approach are also implemented in the post-assignment stratification and post-summary. The six steps of the BOPPPS model and The Layered Participatory Teaching are different and have their own roles to play, but they are inseparable, interrelated, and indispensable, and the absence of any one step, or the severance of the interconnection between them, will greatly reduce the effectiveness of the teaching. For specific courses, The Layered Participatory Teaching is used as a guide and the BOPPPS model provides specific stages of operation, combining the two to achieve essential goals, enhance student engagement, target students' differentiated development and improve their online learning. In this way, the course can be divided into three stages – pre-learning graded participation, in-learning graded participation and post-learning graded participation – and the overall teaching steps can be realized through a specific online teaching app platform such as Super Star Learning. Super Star Learning [11] is a teaching app developed in recent years with the development of smartphones, which has already achieved powerful teaching aids such as check-in, selection of students, supervision, publishing assignments and live video streaming. Similar apps are QQ and Tencent Meeting.



**Figure 2.** A layered participatory model based on the BOPPPS model.

### 3.1. Pre-School Calibration Tiered Participation

The pre-school calibration corresponds to the 'Pre-Assessment' and 'Objective' components of the BOPPPS model. In order to use the method in an authentic English lesson, the objectives are the second important part of the method, after knowing the background information of the students. The 'Pre-Assessment' does not need to be integrated into The Layered Participatory Teaching, but is designed to allow the teacher to understand the background of the students, to check how well the students have completed their "pre-reading" of the relevant teaching points and how well they understand the proper nouns in specific sections of Comprehensive English so that the teacher can adjust the content accordingly and develop directly focused, targeted learning objectives and flexibly and dynamically adjust the pace and depth of the lesson in advance. Teachers can use the QQ platform to ask students questions about whether they are interested in the vocabulary and knowledge of the general English they are studying, whether they have questions about the curriculum or details, and how well they understand the content of the chapter. This can be done through discussions on the QQ platform and through the 'Post a Task' process on the StudyHub platform. The "Objective" session can be appropriately integrated into a The Layered Participatory Teaching. Unlike the traditional teaching process, which inevitably makes the class boring, this session aims to begin with the teacher's main objectives and what will be achieved by the end of the

course, in terms of knowledge, competence and the quality of the students. At this stage, the teacher will set different objectives based on the results of the 'Pre-Assessment' phase, according to the specific level of the students, in order to avoid the traditional one-size-fits-all approach to teaching.

In the past, teachers often used a "one-size-fits-all" approach to assigning the same "pre-reading" tasks to the whole class, resulting in higher level students "not getting enough" and weaker level students "getting too much" [12]. Under the BOPPPS model of The Layered Participatory Teaching, preschool teachers group students according to their differences. This difference means that teachers classify students into A, B, and C levels according to their 'Pre-Assessment' scores, learning abilities, and learning styles. Each group summarizes the different levels of students in an appropriate proportion. In other words, although the main criterion for stratification is the students' test scores, teachers should also take into account the students' interests, individual differences, and learning abilities. In addition, the whole procedure should be confidential in order to protect the self-esteem of students, especially C-level students. Stratification is the first important part of the method and is the basis for the following procedure. The teacher will post the group list on the SuperStar platform and allow group members to discuss with each other online what they want to achieve in this study and the learning methods they will implement. Depending on the level of the group, the objectives chosen will be different and the teacher's response will be distinctive. In addition to this, the teacher

posts a poll for the choice of teaching method and selects the appropriate, easy and effective way of teaching according to the student's wishes. The significance of this is that students are involved in the process of setting learning objectives, learning from each other, creating a positive learning environment and providing a constant source of motivation for students, and allowing them at all levels to define the purpose and expected outcomes of the class and to take ownership of the methods and approaches they use to acquire knowledge, thus giving students a sense of purpose and a more active and effective approach to their learning.

### **3.2. Introduction of Layered Participation in Learning**

The introduction to learning corresponds to the three components of the BOPPPS model: 'Bridge-In', 'Participatory Learning', and 'Pre-Assessment', to enable students to absorb and transform the content. The overall process of 'Bridge-In' is based on the teacher and group members sharing examples with each other as an introduction to the lesson. In this step, the teacher can negotiate strategies with each group leader so that each group member can actively share English terms or related experiences. For example, what is the specific term for 'Risk' in the Comprehensive English textbook, or what do the group members understand by 'Risk', or ask some students to share specific examples of what they think they have experienced? There are two types of "Participatory Learning": interaction between teachers and students, and interaction between students led by the teacher [13]. It is only when students are actively engaged in the content or task that they are able to realize their inherent learning potential and stimulate their creative abilities. In this process, teachers can use the relatively easy and effective teaching methods chosen by the students in the 'Objective' phase to motivate and inspire students. During the lesson, the teacher can occasionally pose questions to the group members, such as: how to understand the general content of the article through the title Risk, what factors influence Risk, how to solve Risk, and so on. Depending on the difficulty of the questions, different groups can be selected to answer them, and sometimes questions can be asked across levels to promote the progress and competence of different group members. In addition, teachers can also set up "Prize competitions" on online teaching platforms to encourage different students to actively answer and think about the questions, which is also a great way to enhance the implementation of The Layered Participatory Teaching. The "Post-Assessment" means that the teacher can set up a short "quiz" on the SuperStar Learning Platform before

completing the lesson, and the platform will prompt students to complete the quiz and grade it intelligently. The teacher can use this function to check the student's assimilation of the chapter "Risk" and summarize it in time for analysis. Likewise, students can check how much they have absorbed during the lesson based on their scores and reflect on their progress in time. At the end of the lesson, the teacher can give a short summary of the lesson content, assigning different levels of post-lesson work according to the different levels of the groups, taking into account the students' own circumstances and previewing the background to the next lesson.

### **3.3. Post-Learning Summary Tiered Participation**

At the end of the lesson, there is a 'Summary' phase. The teacher can summarize the lesson through individual conversations, reflections by the class leaders, online polls, and so on, and draw conclusions and concrete ways to improve the students' learning efficiency, learning capacity, and digestibility. In addition, the group leader can compile the questions asked by the members of the group, categorize them according to the different questions asked by the students, and answer them in a timely manner, or use the exchange of ideas to encourage more active participation. The most important thing to consider in this step is how to optimize the curriculum, how to get the core word 'Risk' into the minds of the students, i.e. the ability to absorb and digest knowledge, and how to make the students more active in future classes, and how to make it better for different students, e.g. to expand their knowledge for students with higher abilities and to consolidate their knowledge for students at the basic level.

## **4. IMPLICATIONS OF THE LAYERED PARTICIPATORY TEACHING FOR THE TEACHING MODEL OF COMPREHENSIVE ENGLISH COURSES BASED ON THE BOPPPS MODEL**

### **4.1. Addressing Environmental Needs**

The Layered Participatory Teaching under the BOPPPS model breaks through the constraints of the environment and allows us to use technology to provide students with a classroom context in the midst of today's raging epidemic. Comprehensive English is a course that demands a high level of language in the classroom, the student's speaking skills, and the teacher's curriculum. Online teaching

allows students to achieve a more autonomous English environment through online materials and to choose the appropriate English reading materials according to their individual preferences. Both single-tiered and participatory teaching inevitably have problems, such as unstable and unmanageable classroom order. The Layered Participatory Teaching of the BOPPPS model uses small groups to select group leaders at different levels, and allows the group leaders to assist in the management of the class; at the same time, the class is taught according to the interests of the students, attracting their attention and stimulating their interests, thus solving the problem of unmanageability. This approach can be adopted not only online but also offline.

#### 4.2. Increasing Students' Enthusiasm and Efficiency in Learning

The BOPPPS model of tiered-participatory pedagogy can be extended with the use of the internet and technological platforms to create new and innovative ways of teaching and learning for different students. It breaks through the constraints of the offline environment and equipment and improves the quality and effectiveness of teaching through the online virtual environment. It improves a series of problems caused by the lack of a live learning environment for students, such as lack of concentration in class, lack of motivation to answer questions in class, low efficiency in the learning process, and lack of consolidation of knowledge after class. In contrast to the previous participatory approach, the classroom is inevitably a 'one-word' situation, which often occurs because students are 'unable to express', 'afraid to speak', and 'unwilling to respond' in class. "The Layered Participatory Teaching under the BOPPPS model encourages teachers to tier students and actively supervise them, encouraging them to overcome the appropriate difficulties at each stage and to solve the three problems of "inability to articulate", "fear of speaking" and "reluctance to respond" in order to increase their enthusiasm and efficiency.

#### 4.3. Diversified and Innovative Teaching Methods

The combination of The Layered Participatory Teaching under the BOPPPS model is a more innovative way of constructing the curriculum compared to other forms. By giving differentiated and intelligent management to students with different personalities in an English-speaking environment, the educational goal of considering each student and allowing everyone to access development is truly

achieved. For example, the introduction of tiered participation in learning mentions "assigning different levels of after-school work according to the different levels of the grouped students". In addition to this, it also has the advantage of flexible time and self-organized choice of learning intensity. This not only solves the drawbacks of traditional teaching but also offers the opportunity to improve the offline classroom in the future. Out of class, students can also make suggestions and comments on the teacher's class through individual conversations with the teacher, which provides an important role in diversifying and innovating teaching methods.

### 5. CONCLUSION

Good education requires the combined efforts of both teachers and students. In the current environment, the main problems with education are lack of visible teaching outcomes and the inability to practice the content. Layered Participatory Teaching under the BOPPPS model addresses the problems of the day by stimulating students' intrinsic motivation to learn, increasing their sense of self-efficacy, engaging them actively in learning, and allowing them to feel and find their own interests, inspiring a love of Comprehensive English courses. The BOPPPS model of layered-participatory teaching combines the traditional layered approach with the participatory approach, allowing students to discover new interests and motivations in a novel teaching system. Combination with online platforms will make the teaching and learning process more flexible and more relaxed for both teachers and students, and the relationship between teachers and students will be closed in order to achieve truly holistic and multi-level development. These platforms and systems, which are at the forefront of technology and development, will also provide a broader stage for education.

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