Research on Online-offline Blended Project-based English Teaching

-- Take China's PEP Textbook as an Example

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Abstract

With the development of technology, the frequency of "online + offline" teaching method is gradually increasing. At the same time, the emergence of the epidemic has made all parties pay more attention to the role of online education and put forward new thinking on today's teaching. On the connotation of English project-based learning, project-based learning is a new approach that takes learners as the centre, uses "online + offline" to complete sub-projects, and cultivates higher-order thinking. Specifically, we can establish four stages of English project-based learning design based on the perspective of Online-offline integration: project theme identification, stratified sub-project division, quantitative formulation, and sub-project implementation and evaluation. The English project-based learning under "online + offline" integration helps cultivate students' sense of cooperation, improve their analytical ability and cultivate their higher-order thinking ability.

Keywords

"Online + offline" teaching, Project teaching, Higher-order thinking.

1. The Necessity of "Online + Offline" Teaching

Theoretically: Piaget's (1981) constructivism learning theory says that teenagers gradually construct their cognition of the external world in the interaction with the surrounding environment. The learning process of learners should make not only specific responses to certain stimuli but also master problem-solving methods and procedures, adopt effective learning, and reconstruct cognitive schemata in their minds. We need to take students as the center, inspiring students to take the initiative to explore questions and carry out heuristic teaching. However, the single offline English teaching environment could not motivate students' enthusiasm in the past. At the same time, teachers did not provide students with effective ways to conduct heuristic training.

Practically: the 21st century is called the information age. The development of science and technology also leads the direction of teaching. "Mixing and co-existence of online and offline teaching" (Li, Z. T., 2020, p.36). For example, the channels for teachers and students to obtain information are increased: teachers and students can get messages about teaching content from multiple channels and supplement the knowledge they lack by collecting effective resources. Improve students' critical thinking ability: Students can further expand their learning content through online and offline resources. They can rely on information technology to verify information questioning points, thus improving their critical thinking ability. Promote students' reflection and evaluation: students can rely on teachers to test their mastery and directly use information technology to test their completion level and then reflect independently. Therefore, we try to explore practical approaches to English project-based teaching through the "online + offline" line.

2. The Connotation of Project-Based Teaching

Project-based teaching requires teachers and students to discuss and develop value-oriented teaching methods. (Jan, R. Thompson. Barb, L. & Lickliter., 2011, p.402) Project-based learning is different from traditional "spoon-feeding" teaching. It is based on projects, and teachers actively guide students to get familiar with and complete projects and then cooperate and communicate with students based on completing tasks alone. Such project-based learning has a positive effect on improving personal and teamwork ability. Through thinking about the connotation of project-based teaching, I believe the following aspects should become important factors for us to consider when designing project teaching.

First, learner-centered is advocated. There are internal and external factors that affect teaching. But it is the students who play the key role. We inspire students through the external environment, external means, and external materials. Students need to digest and think about them and then output them through processing and sorting. Therefore, project-based learning needs to emphasize the student-centered concept and increase students' sense of participation and autonomy. Teachers should also mobilize students' enthusiasm by using appropriate activities so that students can actively participate in the design of classroom teaching activities. At the same time, it is also necessary to pay attention to the overall difference of students. For students at different stages and levels, the project's content needs to be adjusted appropriately to conform to the level of students and mobilize students' enthusiasm to the maximum extent.

Second, organizing stratified design of the project well: teachers should understand the overall teaching requirements based on the curriculum standards of the English subject they teach. Thematic design is carried out for each Unit based on the comprehensive teaching syllabus. The content taught in each Unit needs project stratification in which the elements can consider the suitability of sub-projects to the teaching content. (Wang, B. R., 2015) The design of the sub-project does not appear out of thin air. Still, it can highlight the project theme, reflect the center of the teaching material and meet the comprehensive training requirements of the English curriculum standard of "listening, speaking, reading and writing." Connectivity between sub-projects: when designing projects, teachers should search for information from various sources, and the links between sub-projects should be set step by step.

Third, placing cooperative means appropriately. The completion of the project requires students to communicate and interact. However, when teaching, teachers should ensure that students have independent thinking and carry out the cooperative exploration between students after students finish the content of the plate independently. This way, students can prepare for the project before the discussion and have independent thinking. Students can be more oriented and targeted in the cooperative debate to cultivate students' higher-order thinking ability and critical thinking ability.

Fourth, diversifying the use of information tools: the real situation emphasized by project-based learning does not specifically refer to the real events in real life. The situation required by project-based teaching is constructed in combination with the help of information tools. (Li, M. F., 2019) As the carrier of context construction, information tools are increasingly applied in current instructions, such as multimedia, whose vivid intuitions support the structure of real English project-based learning. Language acquisition includes listening, speaking, reading, and writing. And multimedia has a set of sounds, images, animation, and text in integrating various information functions. Multimedia lets the student to the language situation of all-round, multi-level language communication and the use of different sensory practices in English learning, promoting the development of students' English subject core accomplishment.

To sum up, learners as the center is a 21st -century learning concept. Stratified design is a teaching method. Project-based cooperation and a combination of autonomous learning is an effective way. Higher-order thinking training is the ultimate goal of project teaching. We should

pay attention to these elements when designing project-based teaching so that several pieces should complement each other and serve project-based design well.

3. The Idea of English Project Design Under "Online + Offline" Teaching

Considering the connotation of project-based teaching, the effective use of information tools has many advantages for the smooth design of English projects. (Li, H, M.，& Dai, J, J., 2020) The popularization of information tools is achieved through "online + offline" teaching. (Jian, J., 2021) thus, when we design the teaching project, we need teaching-projected: the teaching goal, class content, time distribution, evaluation system, and then into the "online + offline" teaching in the process design, as much as possible to play the biggest positive role in the project aided English teaching to improve students' learning efficiency. The English project design under the "online + offline " integration should design learning objectives, teaching content, and after-school assessment based on the Curriculum standards of English subjects.

Based on the above ideas, English project-based design under "online + offline " integration can be divided into four stages. Stage one is to define the project theme. Stage two is the stratification of sub-projects and the formulation of quantification. Stage three is sub-project implementation. Stage four is evaluation and reflection. (Figure 1)
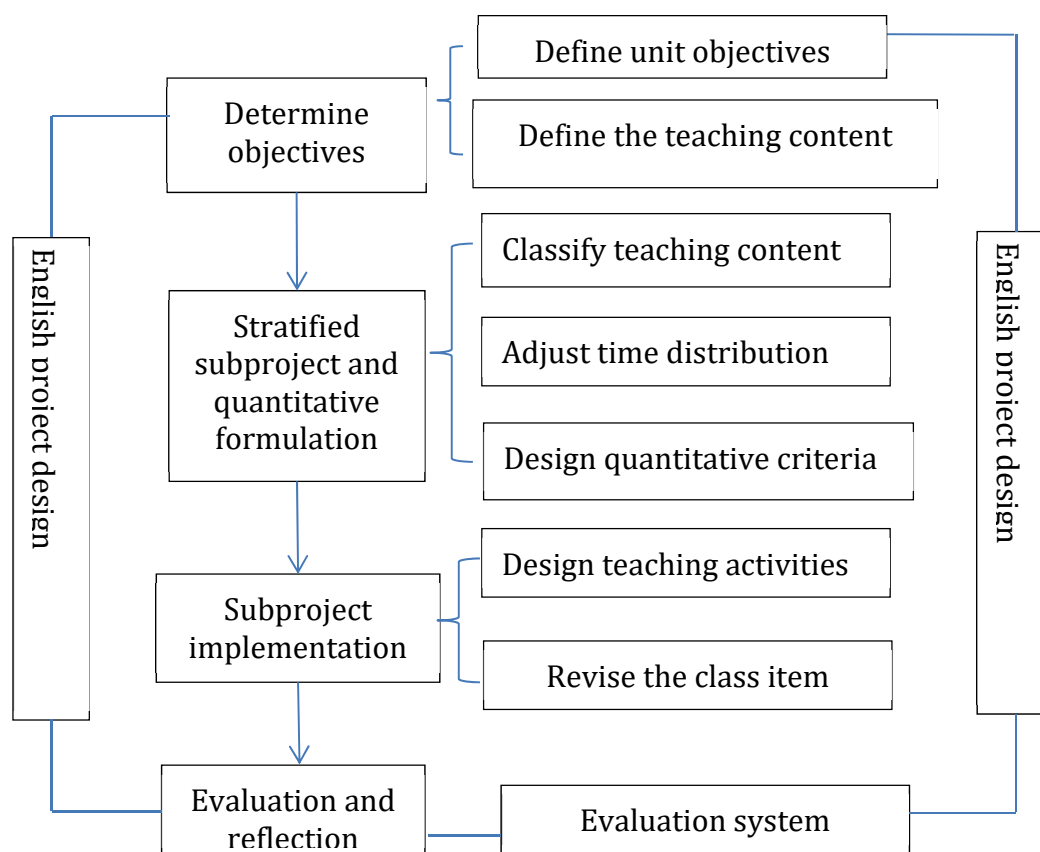

Figure 1. Online-offline Blended Project-based English Teaching

According to Figure 1, teachers are first required to determine the overall objectives of the Unit and the project theme under the guidance of English subject curriculum standards. Teachers must guide students to understand the project requirements and content in advance through online data queries and data collection. After drawing up the project theme, it is necessary to analyze the Unit theme, interpret the meaning, and teach the sub-project at different levels. Sort to it, from shallow to deep, adjust the class hour. At the same time, teachers and students need

to discuss the standards of sub-projects, rely on online and offline information queries, sort out data, refer to the assessment quantitative criteria of other educational projects as much as possible, and pool wisdom. In the implementation stage of the sub-project, teachers can make corresponding adjustments according to the differences in teaching content and teaching group level. Information technology can be embedded in teaching activity design, student-student cooperation, and teacher-student interaction. Finally, we should rely on the evaluation carrier, the platform of "online + offline " integration, and the classified evaluation system to combine the formative evaluation of students' performance in class with the summative Unit evaluation of sub-project implementation results to consider students' performance comprehensively. The continuity of the four stages ensures the smooth implementation of English project-based teaching under the "online + offline " integration. The former stage is the premise and foundation of the later stage.

4. Concrete Design of Four Stages of English Project-Based Teaching Under "Online + Offline " Integration

The basic framework of four stages of English project-based teaching under "online + offline " integration shows the unit design's specific steps and implementation plan. Let's take Unit 2, "WILDLIFE PROTECTION," as an example. The four stages of English project-based teaching design under "online + offline " integration are described below:

4.1. Define the Project Theme

Through the English project-based design drawing with the above "online + offline " integration, the project theme design of the first stage can be carried out from two parts: "unit objectives" and "teaching contents with objectives." Through the analysis of the textbook of Unit 2, the Unit's theme is the protection of wild animals, including the habits of some wild animals, the description of the deterioration of their living environment and living situation, and the advocacy of animal protection actions.

Therefore, we can specify the Unit goal of Unit 2 as "protecting wild animals."

After the unit objective is determined, the target teaching content can be divided into three levels. First, the knowledge level: This Unit describes the living habits of African elephants, Pandas, Tibetan Antelopes, and other wild animals. Students should understand and master the situation of some important wild animals, which can expand their knowledge. Secondly, students should learn and know how to use the words of animals and their living actions mentioned in Unit 2 and sentence expressions describing the living environment and living state of wild animals. Finally, the emotional goal is also the most important aspect of the three-dimensional objects. After completing Unit 2, students should understand the current situation of endangered wild animals, cultivate the values of protecting wild animals, and establish the determination to cherish wild animals in action. These need to rely on the teacher's good curriculum design to arouse students' sympathy and stimulate their empathy. Here, teachers can use online and offline information queries, such as searching the literature and periodicals about the living environment of wild animals related to Unit 2 to understand the full content of Unit 2. Meanwhile, it is also helpful to guide students with more official materials and natural materials.

4.2. Stratified Sub-Projects and Quantitative Formulation

4.2.1. Classified Teaching Content

The teaching content can be formulated according to the three-dimensional objectives and the textbook content. According to Unit 2, the content of the teaching material can be divided into several parts: "listening and speaking," "Reading and thinking," "Useful Structures," "Talking."

In the sections of "Reading for Writing," the content is classified and formulated according to the requirements of students' ability cultivation in the English subject standard curriculum. The four stages of "listening, speaking, reading, and writing" are all included in the unit design. In this way, teachers can adjust and integrate the whole Unit 2 according to students' learning characteristics and levels. Through analysis and sorting, we can make the following adjustments suited to the contents of teaching materials:

"Listening and speaking" is listed separately, aiming to arouse students' interest and curiosity about wild animals' living situations by listening. Then, students can imitate and adapt what they hear and practice "speaking." Therefore, "saying" here is the superficial level of imitation and adaptation.

"Reading and thinking" and "Useful Structures" can be integrated. Through reading texts on the living conditions of wild animals, students can learn and explore effective sentence structure expressions and, at the same time, improve students' awareness of wildlife protection.

"Reading for Writing" and "talking" can be integrated. This step is also a continuation of the previous step by learning important sentence expressions. When combined with students' thinking to apply it, they can carry out their creation. Then proceed to the "speak" step. The final "saying" is the use of speech at a higher level, which is not the same as the simple imitation of the first stage. Here, "saying" emphasizes the free expression of independent thinking.

Thus, the whole project process of Unit 2 is classified into three sub-projects, which correspond to the listening, speaking, reading, and writing skills of The English curriculum standard. The ultimate purpose is to emphasize the speaking training based on the content learned.

4.2.2. Adjust the Allocation of Key Class Hours

According to the above reorganization of class hours, class hours must be allocated to the above three sub-projects. "Listening and Speaking" is the first sub-items, the introduction of the Unit, and the link to increase interest in learning, so the time consumption is not dominant. The Unit 2 project should not take more than one-fifth of the class time. The second sub-project focuses on "Reading-led" language structure learning, which includes teachers' explanation of language knowledge, students' absorption of knowledge, and the supplement of relevant social science knowledge. It also takes time for students to digest words and sentence structures. Therefore, the second subitem should have the largest time ratio. The last sub-project is the "talking" training based on writing, the output stage of students' digestion of the second sub-project, so we cannot ignore its importance. Thus, we can establish the teaching sequence of unit projects: from "listening" to "speaking," and then "reading" to learn the key structure to promote "writing," and finally to the process of "speaking."

4.2.3. Design Gauge Evaluation System

The third is gauge compilation. The gauge plays a very important role in teacher education. It is not only a grading standard for homework tasks but also a compass for exploring knowledge. (Ernesto, P. & Anders, J., 2013, p.129) The gauge should be researched and developed by teachers and students, relying on online and offline information retrieval, data collection, and sorting. According to the teaching requirements of the three stratified sub-projects, the measuring standards can be formulated separately. Specific as follows：

4.3. Sub-Project Implementation

4.3.1. Design Class Activities

Subproject 1 introduces the unit theme, which aims to arouse students' interest. Therefore, first of all, teachers can guide students to use online and offline channels to search the information about the life of wild animals discussed in the Unit. This step lets students know the content to be learned before class. Moreover, it is also beneficial for them to share information in the course and gradually develop the habit of independent learning in advance. Also, teachers can

use multimedia and other information channels to show the living conditions of wild animals, such as the broadcast of documentaries, wild animal migration maps, etc., to guide students to pay attention to the Unit 'topic and improve their interest in learning. About the selection of listening materials for subproject 1: students need to be centered and use relevant software to know students' weak points in advance. Teachers should choose listening materials suited to the most students in the class as the main reference and evaluation points. Effective listening expressions can enable students to cooperate, such as role-playing, scene simulation, and other forms, to imitate or adapt the material. Students' simple oral activities can be recorded using technology to facilitate "oral" comparison after the entire Unit to put forward more targeted problems and improvement measures.

Table 1. Gauge evaluation system

Unit project	Requirements	Elementary (Identification)	Intermediate (Organization)	Advanced (Application)
Subproject 1: Listen & Speak	Recognize, remember and pronounce wild animal words 2. Be able to understand the living conditions of wild animals in English	Can pronounce basically accurately; a few words memory loss and sentence understanding is not good	Be able to understand and memorize all words, but not complete sentences	Be able to understand complex listening sentences and translate them into Chinese
Subproject 2: Reading & Thinking	1.Can understand the general idea of articles, master new vocabulary and sentence patterns 2. Can use scan reading skills to capture details	Can understand the general content of the text, but cannot grasp the key information	Be able to complete all the information details, but it takes too long	Be able to use the reading skills taught effectively to complete detailed questions correctly in limited time
Subproject 3: Write & Speak	1.Be able to master grammatical and sentence structures and apply them 2. Be able to organize information and make speeches by learning materials and language structures	Can use the structure to write, but there are some grammatical mistakes; Inability to express oneself fluently	Be able to write with correct grammar and express ideas fluently	Be able to express ideas freely and fluently using the structures learned

After the study of sub-project ii, it is necessary to cultivate students' reading skills such as "scanning," "skimming," and "Careful Reading." First, students should be able to understand the content of the article. At this time, students should have no great difficulty in understanding the article. Because subproject 1 completed the learning of Unit new words. Students' greatest difficulty in reading is unfamiliar sentence structure, phrase collocation, etc. Therefore, students are required to read the passage for a limited time. They only need to answer the main idea of the passage. What is the living condition of wild animals? This step is good for developing students' skimming ability. In the second reading, students are required to master the central idea of each section and train their ability to scan. Teachers can use multimedia to

present some basic questions of the article and let students make choices after reading. Then teachers give answers and corresponding difficulties and explain the language structure. When describing the language structure, teachers should contact the phrases that have appeared or are likely to occur as test questions in the future. Expand students' knowledge reserve and strengthen their memory by searching online information test questions and collecting related vocabulary and phrases in foreign magazines. Finally, after explaining the material, students are presented with detailed questions through multimedia without specific options. Students are required to read the details of the text independently and use the text materials to organize language answers, which helps develop students' ability of "careful reading." Finally, students share their answers in class before presenting their final answers. After reading this article, teachers can organize other teaching activities, such as group cooperation, to discuss and formulate effective ways to alleviate the deteriorating living conditions of wild animals. Teachers need to go to each group separately to exchange ideas. The last step is to invite several groups. The teacher needs students for effective feedback, puts forward feasible suggestions after their sharing, and finally analyses problems through "online + offline" two channels: online depends on network resources, tracking other wild animals to improve the project's feasibility. Students learn how to implement from experience and better guide themselves. Offline: you can refer to the regulations and actions of nearby government departments and relevant wildlife protection societies. Students can make a multi-dimensional reference in groups after class based on the information, they collect online and offline, then modify their wildlife protection measures to make them more feasible.

After students have accumulated knowledge and understanding of the living conditions of wild animals and the corresponding protection measures, they can enter the study of sub-project three and output the absorption after class through written and oral expression. Teachers can collect some writing materials in advance for students to read and deepen their understanding. Students need to rely on the language structure learned in class to write, and the final writings can be uploaded and modified through the relevant App between teachers and students. Through the App, teachers can receive the composition immediately and directly send it to students, which saves time and multi-step modification procedures. Students can also rely on the App to modify, submit, and store their documents. The last step of "speaking" is a way to show the learning effect in the form of oral expression. Teachers should focus on students' verbal expression ability and provide students with more opportunities for oral practice. Then, by comparing some official and authentic wildlife protection videos, correct some pronunciation, language structure, word misuse, and other problems.

4.3.2. Revision of Class Item

Project design is a process of reflection, criticism, adjustment, and re-revision. (Ron, B., Lean, L. & Libby, W., 2020) The core literacy, unit concept, and driving issues need to be constantly improved and revised in the whole design process. Reflection and revision are important links in project-based learning design. Teachers should reflect deeply on the unit project's objectives and the actual project's teaching results and work with students to revise the project's design using structured procedures.

4.4. Evaluation and Reflection

Classification evaluation system: the measurement standard of sub-project content has been defined in the previous measurement formulation. However, the combination of formative and summative evaluation should gradually replace the single evaluation system prevailing in primary and secondary schools. The effective combination of the two is a fair assessment means to measure the overall learning status of students. Teachers consider "attendance, question answers, daily homework completion" and so on according to multiple factors and record students' classroom performance numerous times through information technology. At the

same time, the helpful inspection system cannot be ignored. Students under the management of parents may present a different state from the school, which is always a headache for most parents. Therefore, home-school supervision and communication technology can be relied on to effectively restrict and manage student behaviour. Strengthen the supervision of students employing information exchange between teachers and parents, which is also a reflection of transparency of students ' learning.

5. In Conclusion

"online + offline " integration project under the perspective of English teaching design is a new exploration teaching model for the new era. This paper explores the necessity of the "online + offline" teaching, "four" English project-based teaching connotation. The concrete project is divided into four stages, in the case of Unit 2 divided into three components in teaching. Exploring English project-based teaching practice under the "online + offline " integration also faces many difficulties and challenges. How to deepen understanding and promote its application in normal English teaching mode should be a process of continuous practice, thinking, and improvement. We need to review the practice approach of English project-based teaching under the "online + offline " integration perspective of thinking and spiral development, constantly promote students' core competitiveness and cultivate their higher-order thinking through the continuous improvement of project teaching.

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