

# New Thinking of Curriculum Design for Study-Based Travel Based on the Novel “PBL+” Model

Weiling Zhu, Ruei-Yuan Wang\*

School of Sciences, Guangdong University of Petrochem Technology(GDUPT), Maoming 525000, China

\*Corresponding Author

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## Abstract

*Study-based travel is an emerging comprehensive practice for cultivating students' core literacy curriculum. However, there are many problems and phenomena in the implementation process. In the face of real-world situational issues outside of the classroom, effective teaching models to use for cultivating students' Geographic Core Literacy (GCL) are currently a study-based travel hotspot. This study integrates the problem-based learning (PBL) teaching method, integrates the theoretical concepts of structuralism and pragmatics, and combines the GCL and geography textbooks to propose a new thinking framework for the "PBL+" model. Based on this, curriculum design is introduced, with high school students as the study-based object, and a design case is proposed based on the unique local resources of Heyuan City. The main focus is to combine theoretical knowledge from books with practice and integrate local resources into the classroom. It is not only following the main line of cultivating students' GCL and promoting the construction and development of core competencies but also providing references for optimizing the curriculum of research bases and schools.*

**Keywords— Study-based travel (SBL); “PBL+” model; Curriculum design; Structuralism; Pragmatism; Geographic Core Literacy (GCL)**

## I. INTRODUCTION

Today, with the comprehensive implementation of the fundamental task of cultivating morality and promoting quality education, study-based travel (SBL), as an important form of educational innovation that focuses on students and practices, has received much support from the country and government in recent years. Since 2013, the State Council, the Ministry of Education, and various educational institutions have continuously introduced specific norms and measures based on the policies of the central government. This shows that SBL has become a consistent educational policy promoted by governments at all levels, from the

central to local levels, and has clear regulations on the purpose, standards, guarantees, and other aspects of SBL, providing a good regulatory basis and development platform. Highlight the educational significance and implementation vision of SBL. Simultaneously, in conjunction with the revision of the new geography curriculum standards, more emphasis is placed on geographic core literacy (GCL). The main goal is to truly cultivate students' geographical perspectives and practical abilities through "geographical practice" outside the classroom, reducing the vague and abstract textbook experience.

Under the influence of exam-oriented education,

traditional geography classrooms mainly focus on expanding students' geography knowledge and cultivating their ability to solve geography problems. Nowadays, the cultivation requirement of GCL is to reform the traditional geography classroom and adopt situational and case-based teaching to construct students' core geography abilities. In other words, it is necessary to cultivate practical contact and judgment abilities. However, the traditional teaching of geography knowledge in the classroom separates students from nature and society, severing their connection with nature and society. The geography knowledge learned by students cannot be combined with practical life and can only obtain scores, which cannot demonstrate the strength of their abilities. Furthermore, traditional geography classroom teaching has few means to cultivate geographic practical ability and cannot be close to physical objects, making it difficult to achieve the goal of cultivating GCL.

Various studies have shown that in the existing SBL curriculum, there may still be old thinking and habits, such as "traveling" instead of "studying", formalization of curriculum settings, dilution of curriculum implementation, unclear goals, random activity design, The implementation process did not prioritize students as secondary schools, one-sided evaluation methods, or single teaching models impact the implementation effectiveness of SBL curricula (Lu and Liu, 2023). Even in the context of the development and needs of the new generation, there are problems such as a lack of design thinking and theoretical guidance, an inability to support the concept of student-centered practice, and an inability to effectively integrate curriculum textbooks with design activities.

Based on this, in order to improve the difficulties in implementing SBL and deepen the curriculum education reform, this study attempts to introduce the PBL (problem-based learning) teaching concept and construct a SBL curriculum practice system that reflects students' autonomy. As a problem-oriented teaching model, PBL is an exploratory learning model that utilizes multiple resources in the real world to solve a series of interrelated problems. It has a guiding role for SBL curriculum design. Furthermore, this study

integrates the PBL teaching model with educational theory, GCL, and geography textbooks, proposing the "PBL+" model. Integrating methods such as creating problems, clarifying study-based objectives, and collaborating in groups in real geographical contexts into the geographic SBL curriculum aims to improve its practical effectiveness and shape a reasonable and feasible training plan. It can implement the cultivation of students' GCL and complete the fundamental task of cultivating virtue and talent.

## II. LITERATURE DISCUSSION

### 1.1 Abroad Study

SBL activities abroad started early, and the "Great Study Tour" movement emerged in Europe in the 17th century. The academic terms related to SBL so far include "experimental education," "outdoor education," "field trips," "educational tourism," "study tourism," "learning travel," "camp education," etc. Common implementation methods include visiting scientific and cultural institutions, natural environmental landscapes, summer camps, studying abroad, etc. Among them, "Field Trip" and "Study Tour" are more focused on teachers and students and pay more attention to the connection between classroom education and outdoor education.

There are also diverse study-based directions regarding SBL, such as Zarzuela et al. (2013) studying the methods of conducting SBL activities based on VR. Salmi et al. (2016) utilized open learning environments and informal learning resources to evaluate the study-based curriculum of Finnish teachers and normal school students, as well as the professional development of teachers, using the "New Education model" and "Paradigm" theories. Mcgladdery et al. (2017) proposed a SBL model based on results, believing that the efficient operation of SBL should be promoted in three aspects: knowledge acquisition, attitude or thinking transformation, and skill development. Dillette and Sipe (2018) utilized Kolb's four-stage learning cycle and leadership development theory to explore SBL in the context of leader development in hotel and tourism management plans.

Malywanga et al. (2020) analyzed existing

literature and found that SBL is an effective teaching method for teaching entrepreneurship. Stavrianos and Adams (2022) adopted a qualitative paradigm to explore the benefits of integrating SBL into philosophy for students with learning disabilities. Gough (2022) discusses the changes involved in creating new disciplines from a broader perspective of social, cultural, and educational theory, resulting in the fields of SBL, subject teachers, and a more academic study-based curriculum.

Overall, these SBL abroad focus on utilizing models, theories, and analytical methods to explore their role and efficient operation in the new educational environment. By doing so, the scope of application of SBL will be expanded, making it more student-oriented and exploratory.

### 1.2 Domestic Study

The study orientation on SBL in China was conducted relatively late, and relevant study-based papers were searched in the CNKI database under the theme of "SBL". As of November 2023, a total of 6029 papers had been published. There are many scholars who apply models, analytical methods, and theories to SBL, such as Song (2021) study based on the service path and the study strategy of public library SBL development based on the AISAS model. Ma and Ye (2022) developed curriculum by combining geography and SBL based on the ADDIE model. Zhang and Lai (2021) used the "Study-Based Practice Activity in Ji Guan Cave" as an example to explore the application of the STEAM education concept in the SBL activity based on the karst landform study-based practice activity. Huang (2021) designed a high school geography SBL curriculum based on UbD theory. Construct a study-based curriculum in three stages: determining expected goals, determining appropriate evaluation evidence, designing teaching experiences, and teaching activities.

In addition, Chen and Wang (2022) took Qufu City as an example, combined with the SWOT analysis method, used system analysis theory to analyze the various factors related to geographical SBL and match them, and obtained a SBL curriculum development strategy for developing practical cultural heritage in

Qufu City. Wu and Liu (2023) designed a geography SBL curriculum based on the POGIL theory, emphasizing a student-centered approach and emphasizing the role of students as the main body and the leading role of teachers. Wu et al. (2023), based on the CIPP evaluation model and adhering to the principles of safety, student subjectivity, operability, education, and comprehensiveness, explored the study-based resources in the Southern Wu-dang Mountain area and constructed a SBL evaluation system.

### 1.3 Conceptual Overview

Based on the above review of study status both domestically and internationally, it can be seen that the SBL related to the study abroad has a long history and numerous directions, with early attention to policy level and leading technology. Some scholars have even conducted SBL studies abroad from the perspective of a new technology, VR. From a foreign study-based perspective, SBL pays more attention to study-oriented, exploratory, inspiring, innovative, and scientific aspects, and its target audience is not only limited to middle school students but also has a wide range of applications and can rely on cutting-edge technology and explore the feasibility of future development.

Compared with foreign countries, in the context of exam-oriented education, China's geographic SBL places more emphasis on practicality, discipline, and standardization. Scholars have focused on introducing various theoretical models into the SBL curriculum design with a diverse study-based approach and exploration. However, the specific study based on integrating theories into the SBL curriculum design needs to be improved. For example, when scholars integrate POGIL theory, UbD theory, STEAM theory, etc. with SBL, they only describe the connotation of these theories without summarizing their characteristics and transforming them into specific solutions. Based on these theories, the design of SBL has the problem of assimilation.

Secondly, scholars have used AISAS models, ADDIE models, and other models to conduct study-based curriculum design without incorporating subject curriculum standards. The problem of subject characterization and curriculum fuzziness in SBL

curriculum design is more prominent. Simultaneously, although the study-based curriculum design takes into account the student's dominant position, no specific implementation measures are provided. It only moves the classroom outdoors, focusing only on the layout and experience of activities while neglecting the learning of key knowledge and other biases. Its practicality and operability need to be discussed. Moreover, in the case of integrating domestic SBL curriculum design with local resources, there is no study-based location that combines local characteristics, and there is a lack of reflection on highlighting local characteristics.

After exploring the above literature, the innovative thinking concept proposed in this article is to integrate the PBL teaching method with the four core disciplines of geography and integrate the "PBL+" model. The plan is to combine the content of study-based curriculum with geography textbooks and standards, select local study locations, and design a feasible and unique

geography SBL curriculum plan to explore the overall thinking and theory, core literacy, design principles, and feasibility of the design chain model for the development of geography SBL curriculum in order to provide a case study for achieving educational value.

### III. METHODOLOGY

This study mainly focuses on the PBL teaching method, integrating the understanding of structural theory and pragmatic educational ideas, and incorporating the main elements of GCL (including the human-earth coordination view, comprehensive thinking, sense of the region, and geographic practical ability). Combined with the theme of textbook revision, it forms design ideas and principles and proposes a new thinking model for "PBL+", as the thinking framework for the SBL curriculum design, the design ideas and content are finally proposed (Figure 1).

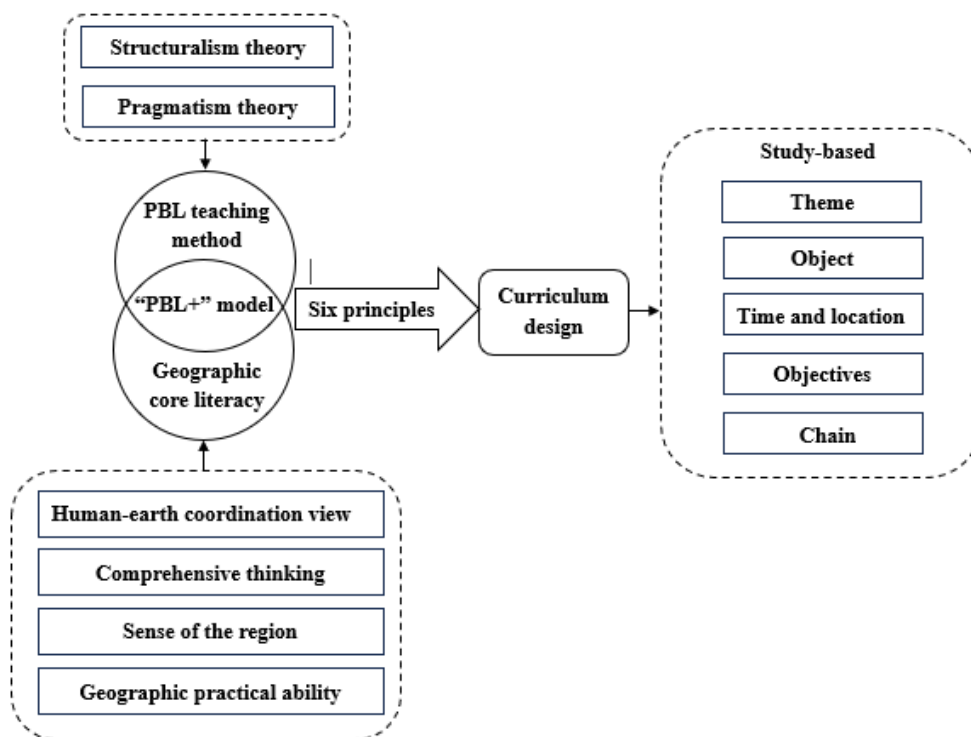


Fig.1. "PBL+" Model Framework for SBL Curriculum Design

#### 1.4 PBL Teaching Method

This study focuses on the PBL teaching method, which places learning in real and meaningful problem situations. By allowing students to explore and

collaborate independently, they can learn the knowledge behind problems, develop problem-solving skills, and develop comprehensive abilities during the problem-solving process. The following will provide an

overview of the PBL teaching method, including its connotation, theoretical basis, and characteristics.

### 3.1.1 The Connotation of PBL Teaching Method

The PBL teaching method is generally translated as "project-based learning" or "thematic learning" in China, among which "project-based learning" is the most widely used. The Buck Institute of Education in the United States defines the PBL teaching method as "a systematic teaching method that explores complex and real problems, as well as the process of carefully designing project works, planning, and implementing project tasks. During this process, students are able to master the knowledge and skills they have learned. The PBL teaching method emphasizes a student-centered, problem-oriented learning approach that guides students to solve problems through group collaboration by creating real-life situations and ultimately completing projects. It starts with driving issues as the starting point for study-based projects, determines project objectives, plans and designs project plans, collaborates in group implementation, cooperates to solve related problems during implementation, completes the project, and presents and reports. The PBL teaching method is a process of exploring complex and real-world problems. It is an autonomous learning model of "problem-based learning" or "problem-oriented learning" (Yang, 2006) and also a process of carefully designing project works, planning, and implementing project tasks.

Compared to traditional indoctrination and cramming-based, knowledge-based teaching, the PBL teaching method is student-centered and problem-based. Imagination replaces traditional textbook knowledge in the classroom to cultivate students' cognitive ability, comprehensive thinking ability, and geographic practical ability. The main core spirit of combining the PBL teaching method with SBL lies in how students can use study-based learning to replace traditional passive learning with practice and adopt an active form. Based on textbooks, students can learn how to study and understand before class, judge the selection of study areas, plan and organize activity content, learn teamwork to explore study content, form key learning questions and establish hypotheses,

arrange activity content, conduct on-site visits and understanding, and observe, explain, and verify knowledge points to ensure that the entire teaching activity conforms to the core principles mentioned above and is feasible. Combining the PBL teaching method with geographic SBL with a focus on empowering students to be creative and able to transform traditional teacher-centered indoctrination into proactive exploratory teaching, we meet the needs of contemporary society for talent cultivation.

### 3.1.2 The Theoretical Basis of PBL Fusion

#### 1. Structuralism Theory

Structuralism theory is a branch of cognitive psychology, mainly represented by Jean Piaget, Lev Vygotsky, etc. Its core can be summarized in one sentence: student-centered, emphasizing students' active exploration, discovery, and construction of the meaning of the knowledge they have learned.

Structuralism advocates learner-centered learning under the guidance of teachers, emphasizing the cognitive subject role of learners while not neglecting the guiding role of teachers (Wang and Qiu, 2023). Students are not passive recipients of information stimuli but rather need to explore, discover, and actively select, process, and process external information during the learning process. Based on their existing knowledge and experience, they should recognize and encode new information, construct their own understanding, and become active builders of meaning. Teachers are helpers and promoters of meaning construction. They should use various teaching methods, such as creating situations that meet the requirements of teaching content, organizing and guiding collaborative learning, inspiring and guiding students to discover and solve problems, etc., to stimulate students' learning interest, help students form learning motivation, and help and promote students' meaning construction (Cai, 2023).

Based on this, when incorporating the PBL teaching method, the focus of study-based learning is to enable students to solve practical problems and complete tasks with existing knowledge and experience. In this process, existing knowledge is reorganized and transformed to form new knowledge, while teachers

provide more scaffolding to help students reconstruct knowledge and generate meaningful knowledge systems. This process supports student-centered practical learning, and SBL is simply a learning context provided by schools and teachers to serve as a foundation for inspiring students to engage in hands-on practice.

## 2. Pragmatism Theory

Pragmatism education theory is an educational theory that originated from the philosophical foundation of Pragmatism and emerged in the United States in the late 19th century. American philosopher and educator John Dewey is his advocate and most important representative. Dewey believed that life and experience are the souls of education. Without life and experience, there can be no growth and, therefore, no education. Dewey's discourse on the essence of education based on empirical philosophy can be summarized in three aspects: "education is growth," "education is life," and "education is the continuous transformation of experience" (Li and Wu, 2021).

Dewey's pragmatic theory criticizes traditional educational theories, disregarding the individual characteristics of children and the continuous changes in social life. It criticizes traditional educational theories that focus on teachers and textbooks, emphasizing the three major factors of students, experience, and activities in education. It is student-centered, characterized by activities such as curriculum and learning by doing, and emphasizes students' independent exploration and discovery of knowledge. Learning occurs in specific activities, where students are the core of learning, not passively accepting textbook knowledge but processing students' experiences through activities.

Students actively construct their new knowledge, and the role of teachers is to organize and guide students' activities based on their characteristics and needs. The education process is a process of joint participation and cooperation between teachers and students, and there is a democratic and equal teacher-student relationship between teachers and students. These contents have been reflected in the PBL teaching method, and integrating them into SBL can

also fully reflect the essence of education.

## 1.5 Geographic Core Literacy (GCL)

The curriculum standard for geography in ordinary high schools (revised in 2017 and 2020) states that GCL mainly includes Human-Earth Coordination View, Comprehensive Thinking, Sense of the Region, and Geographic Practical Ability, which are interconnected organic entities.

Human-Earth Coordination View refers to the correct values that people hold towards the relationship between humans and the geographical environment. The "Human-Earth Coordination View" literacy helps people better analyze, understand, and solve problems related to human land relations, becoming builders of a harmonious world.

Comprehensive thinking refers to people's way of thinking and ability to understand geographical environments from a comprehensive perspective. 'Comprehensive thinking' literacy helps people to comprehensively, systematically, and dynamically analyze and understand the geographical environment and its relationship with human activities from a holistic perspective.

Sense of the region refers to people's way of thinking and ability to understand the geographical environment from a spatial regional perspective. The "Sense of the Region" literacy helps people analyze and understand the geographical environment from a regional perspective, as well as its relationship with human activities.

Geographic practical ability refers to the willpower and action abilities that people possess in geographical practical activities such as investigation, experimentation, and investigation. "Geographic practical ability" literacy helps to enhance people's awareness and ability to take action, better observe and comprehend the geographical environment and its relationship with human activities in real situations, and enhance social responsibility.

## 3.3 "PBL+" Model

The "PBL+" model proposed in this study is a model that integrates the PBL teaching method with the four core competencies of geography. On the one hand, in the curriculum reform centered on cultivating

core competencies, geography teaching highlights the four core competencies of "comprehensive thinking," "regional cognition," "geographical practical ability," and "human environment coordination concept." This puts forward new requirements for geography teaching; that is, in the design of geography research travel, the new curriculum standards propose to guide students to carry out rich and diverse geography practical activities in real situations through independent, cooperative, and exploratory learning methods and implement the four core competencies.

On the other hand, the PBL teaching method is a systematic learning and research activity based on real-life situations. By creating real-life problem situations, it triggers students to think deeply and actively cooperate to solve problems, enabling them to move from traditional disciplinary learning to comprehensive learning, which coincides with the requirements proposed by the new curriculum standards. Therefore, this study integrates the PBL teaching method with the four core competencies of geography and proposes the "PBL+" model. In this model, SBL design can be combined with curriculum standards, student-centered, problem-driven, and guided by creating real situations to guide students to solve problems in a group cooperation manner; implementing the four core competencies of geography. At the same time, it can reflect the teaching philosophy of structuralism and pragmatism.

### **3.4 Design Principles**

Analyze the relevant cases of PBL teaching methods and GCL and propose the six principles of the "PBL+" model and SBL curriculum design in this article: That is, the regionality principle, the theme-objectives principle, the project-task-driven principle, the integration principle, the feasibility principle, and the geography principle.

#### **1. Regionality Principle**

When designing a SBL plan, it is important to consider selecting a closer location as the study-based point, which can reflect the local regional and cultural characteristics, closely connect local knowledge with teaching knowledge, strengthen the sense of the region, and implement the cultivation of GCL..

#### **2. Theme-Objectives Principle**

Develop appropriate themes based on the requirements of the curriculum standards and local characteristics; select appropriate study-based resources and design routes based on the themes; integrate study content to adapt to the study-based theme; and develop study-based objectives on this basis to meet the requirements of cultivating the core of the discipline and the SBL curriculum objectives. Once the theme and goals of the SBL are determined, the context for conducting study-based learning will be locked in, which is beneficial for students to enter the context.

#### **3. Project-Task-Driven Principle**

SBL is a learning experience activity in real situations that requires students to experience both "in context" and "real situations." The task-driven principle refers to the design of teaching content into one or more specific and actionable tasks by teachers in real-life situations guided by projects, task-oriented, and linked by knowledge points. Students closely revolve around task activities and, under the guidance of teachers, achieve the internal construction of knowledge through autonomous learning and collaborative exploration, improving their self-learning and innovation abilities.

#### **4. Integration Principle**

The design of SBL should reflect the integration of various course resources, including the integration with classroom teaching resources, the integration of students' life experiences, the integration with other disciplines, and the integration of natural and human geography resources. It should consider the existing knowledge background of students, connect theory with practice, and think about the causes, processes, results, and development of geographical phenomena, cultivate students' comprehensive thinking level, comprehensively understand the regional geographical environment, and cultivate students' overall understanding of the region.

#### **5. Feasibility Principle**

Conduct a comprehensive investigation of the study site and conduct site visits in advance to ensure the feasibility of the study route. To choose a research

site with high safety factors and regional characteristics, it is necessary to consider the content involved in the research site as well as the cognitive level, ability, and related knowledge reserves of students.

## 6. Geography Principle

When developing geography practice curriculum, teachers should focus on the knowledge, laws, and principles involved in high school geography and use geographical study-based methods and means to conduct investigations. In the curriculum's design, the disciplinary characteristics of geography should be highlighted, guiding students to analyze and explore problems from a geographical perspective and achieving the improvement of GCL.

## 2 CURRICULUM DESIGN OF "PBL+" MODEL

The design concept of SBL curriculum based on the "PBL+" model will integrate the PBL teaching method with the four core competencies of geography and propose six principles for the design of SBL curriculum in the "PBL+" model: regional principle, theme goal principle, project task-driven principle, integration principle, feasibility principle, and geographical principle. Under the guidance of these six principles, design research themes, objects, time and place goals, and the learning chain:

### 2.1 Study Theme

Heyuan has the largest lake in South China, the "Wanlv Lake." It is one of the top ten cities in China's green economy, an excellent tourist city, and an

international green ecological tourism city. It has been awarded the honorary title of National Garden City. And it has a long history and is an important birthplace of Hakka culture. Since the Qin Dynasty, it has been a part of Nanhai County in Gulongchuan County and is known as the "Hakka Ancient City." The region is also the birthplace of dinosaurs in China, with the city's collection of dinosaur egg fossils ranking first in the world and obtaining the Guinness World Records. The rich local resources of dinosaur geological relics can provide sufficient materials for research and learning, helping students understand their hometown and learn about the geography around them.

### 2.2 Study Object

Based on the design of the geography textbook for the second volume of compulsory geography for the first year of high school in the New Education Press, the target audience for this research is determined to be high school students.

### 2.3 Study Time and Location

The study time can be sunny in spring, summer, and autumn. The study-learning duration is arranged for one day. Based on the SBL theme design, a location with strong geographical practicality is selected to create a project scenario, and it is determined as the Wanlu Lake Scenic Area, Heyuan Sujiawei, and Heyuan Dinosaur Museum. The specific SBL location is shown in Figure 2.



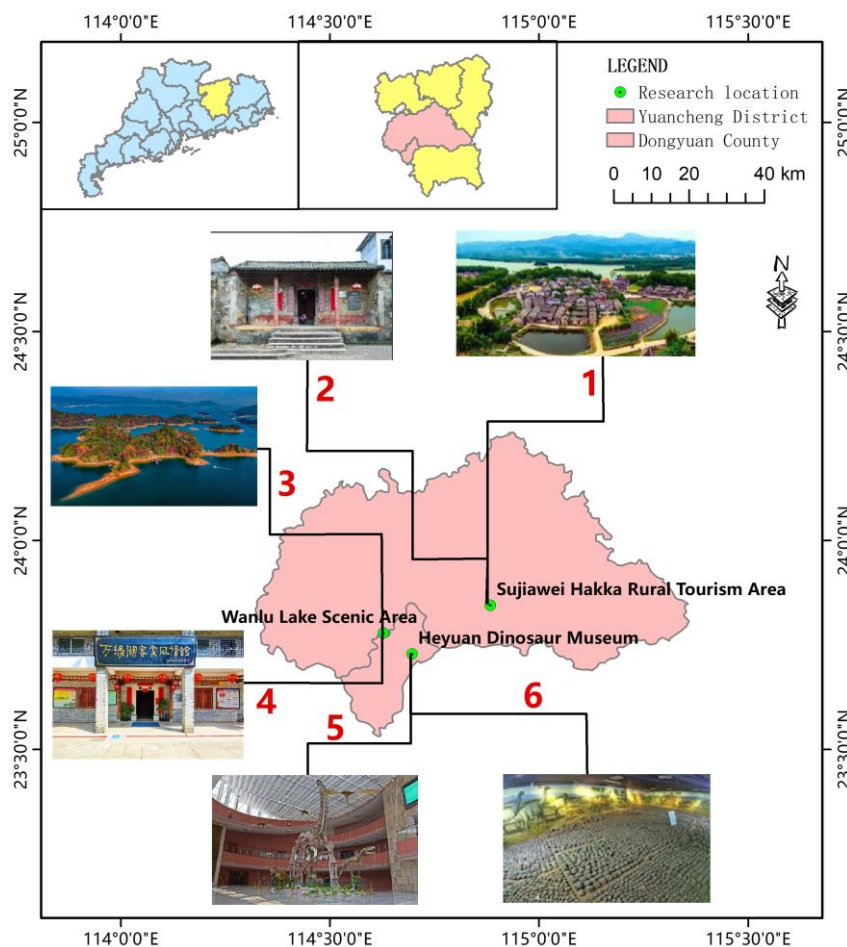


Fig.2 Study-Based Travel Location

## 2.4 Study Objectives

Embodying the basic goals of the "PBL+" model, students should form a team organization before leaving to collect, study, exchange, and discuss data, generate issues and questions, and verify, reflect, and summarize their experiences after arriving at the internship site. Based on the standard textbooks of high school geography courses and aimed at cultivating students' GCL, the study objectives for this study are set in Table 1.

Table 1 Design of Study Objectives

<p>Human-Earth Coordination View</p>	<p>(1) Visiting the ruins of the Su family enclosure can analyze the formation and development conditions of the Su family enclosure from the perspective of human land relations.</p> <p>(2) Through the investigation of environmental issues in the Wanlu Lake scenic area, understand the interrelationships between population, resources, environment, and development in the region and propose optimization strategies for sustainable development. Cultivate the concept that "humans and nature are a community of life" and establish the Human-Earth Coordination View.</p>
<p>Comprehensive Thinking</p>	<p>(1) Visit the Heyuan Dinosaur Museum and analyze the causes of dinosaur extinction and the characteristics of dinosaur development history at each stage from a comprehensive perspective.</p> <p>(2) Combining the collected data with on-site study analysis, analyze the land use and spatial layout structure of the Su family enclosure from a comprehensive perspective.</p> <p>(3) Be able to analyze the environmental problems and reasons for the Wanlu Lake Scenic Area based on factor synthesis, spatiotemporal synthesis, and local synthesis.</p>

Sense of the Region	<p>(1) From a regional perspective, analyze the characteristics of the site selection and overall planning layout of the Su family's enclosure, highlight the value of Sense of the Region in study-based practice, and cultivate students' Sense of the Region ability.</p> <p>(2) Correctly understand and evaluate the current development status and environmental issues of Wanlu Lake from a spatial regional perspective, compare the governance measures of the same type of scenic area, seek feasibility measures for the sustainable development of the Wanlu Lake scenic area, and strengthen the sense of the region capability.</p> <p>(3) Visit the Hakka Style Museum of Wanlu Lake and analyze the regional cultural characteristics reflected by observing historical images, texts, and precious objects from different periods.</p>
Geographic Practical Ability	<p>(1) Utilize geographic tools such as GPS to determine routes and regional boundaries on site, create study-based maps, and cultivate students' geographic practical ability.</p> <p>(2) On the spot investigation, we analyzed the reason why there was no ponding in Su's enclosure during the extremely heavy rainstorm and explained the uniqueness of its drainage system.</p> <p>(3) Conduct on-site inspections, analyze the current tourism development status and existing environmental problems of the Wanlu Lake Scenic Area, and propose optimization strategies based on the on-site inspections.</p>

### 2.5 Study-Based Chain

Students are divided into geographical groups and, based on study-based objectives, develop their own project group and propose a study-based chain for on-site experience and exploration, as shown in Table 2.

*Table 2 Study-Based Exploration on "Appreciating the Hometown of Dinosaurs and Tasting the Historical Rhyme of Hakka"*

Serial Number	Project group content	Study-based chain
Project 1	Taste the Historical Rhyme of Su Family's Surrounded Houses	Chain 1: Exploring the types and formation processes of Yongsitang enclosure buildings.
		Chain 2: Explore the uniqueness of the Sujiawei drainage system.
		Chain 3: Explore the land use and spatial layout structure of the Su family's surrounding houses.
		Chain 4: Explore the natural and cultural conditions for the location selection of the Su family's surrounding houses.
Project 2	Sustainable Development of Wanlu Lake	Chain 1: Conduct an on-site investigation on the current situation of tourism development in the Wanlu Lake scenic area.
		Chain 2: Analyze the main environmental problems and reasons faced by Wanlu Lake.
		Chain 3: Propose optimization strategies for the sustainable development of Wanlu Lake.
		Chain 4: Visit the Hakka Style Museum of Wanlu Lake and analyze the regional cultural characteristics reflected by observing historical images, texts, and precious objects from different periods.
Project 3	Appreciating the Hometown of Dinosaurs	Chain 1: Watch a popular science video on the development history of dinosaurs, describing their development history and the characteristics of each stage.
		Chain 2: Explore the environmental conditions suitable for dinosaur survival in Heyuan City.
		Chain 3: Analyzing the causes of dinosaur extinction from multiple perspectives.

#### IV. CONCLUSION

The design of the SBL activity in this study adheres to the principles of structuralism and pragmatics (student-centered, collaborative, and self-directed learning), applies the PBL teaching model method to ensure the enrichment and effectiveness of the SBL activity, and closely adheres to the requirements of high school geography learning, shaping the design principles and plans, and forming a "PBL+" model with overall design thinking.

The content of the design case study, first of all, takes the local resources of Heyuan as the theme of the textbook, incorporates them into the design model, and carries out a study-based activity with the theme of "Appreciating Dinosaur Hometown and Tasting the Historical Rhyme of Hakka." Three characteristic study-based locations are selected, including Wanlu Lake Scenic Area, Sujiawei Hakka Rural Tourism Area, and Heyuan Dragon Museum, highlighting the local characteristics. Secondly, for the three characteristic study-based locations, corresponding study-based objectives will be developed around the four major qualities of the geography discipline to solve the problem of feathering and blurring in the travel curriculum design discipline. Finally, based on the real scenarios created by SBL, develop a project group and propose a study-based chain for on-site experience and exploration, providing specific Study-Based chains for practicality and operability. It not only focuses on cultivating the literacy of geographic practical ability but also takes into account the cultivation of GCL such as comprehensive thinking, regional understanding, and human-earth coordination view to better leverage the educational value of SBL.

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