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Based on the BOPPPS Teaching Method in the Instructional Design of the Fundamental Accounting Course

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Abstract: Fundamental Accounting, as a core introductory course for economics and management majors such as accounting and financial management, possesses both theoretical and practical dimensions. It serves as a crucial cornerstone for students to build their accounting knowledge system and master basic accounting skills. Traditional teaching of Fundamental Accounting predominantly relies on lecture-based instruction, leading to problems such as insufficient classroom interaction, low student engagement, and a disconnect between theory and practice, which fails to meet the demands for cultivating application-oriented accounting talents in the new era. The BOPPPS teaching method, a modular instructional model that is student-centered and emphasizes closed-loop teaching, systematizes and streamlines the teaching process through six stages: Bridge-in, Objective, Pre-assessment, Participatory Learning, Post-assessment, and Summary. This paper, by integrating the characteristics of the Fundamental Accounting course, deeply analyzes the application value of the BOPPPS teaching method, constructs an instructional design scheme suitable for the course, and validates its application effects through teaching practice. The aim is to optimize the classroom teaching model of Fundamental Accounting, enhance teaching quality, cultivate students' accounting professionalism and practical operational abilities, and provide a reference for the teaching reform of fundamental accounting courses for economics and management majors in higher education institutions.

Keywords: BOPPPS Teaching Method; Fundamental Accounting; Instructional Design; Teaching Reform; Application-Oriented Talents

1. Introduction

1.1 Research Background

Against the backdrop of the digital economy and the transformation and upgrading of the accounting industry, market demand for accounting talents is gradually shifting from traditional bookkeeping to comprehensive application. This requires students not only to master solid accounting theoretical knowledge but also to possess strong practical operational abilities, logical thinking skills, and problem-solving capabilities. The Fundamental Accounting course, as a foundational professional course for economics and management majors, covers core content such as accounting elements, the accounting equation, debit-credit bookkeeping, accounting vouchers, accounting books, and financial statements [1]. The knowledge points are complex and highly specialized, with some content being relatively abstract, posing significant comprehension challenges for students with no prior background. In the traditional teaching model of Fundamental Accounting, the classroom is teacher-centered, typically employing "spoon-feeding" lectures where students passively receive knowledge [2]. This leaves students lacking opportunities for active thinking and practical participation, resulting in low learning interest, a superficial understanding of accounting theory, and difficulty in applying theoretical knowledge to actual business processing, thereby failing to adapt to the talent requirements of industry development. Therefore, innovating the traditional teaching model, introducing scientific and efficient teaching methods, and creating an interactive, practical, and targeted classroom have become the core tasks of the teaching reform of the Fundamental Accounting course.

1.2 Overview of the BOPPPS Teaching Method

The BOPPPS teaching method originated in Canada and is a modular instructional design

model widely used in higher education teaching. Its name is an acronym formed from the initials of its six teaching stages: Bridge-in, Objective, Pre-assessment, Participatory Learning, Post-assessment, and Summary. This teaching method is student-centered, emphasizing clarity of teaching objectives, interactivity in the teaching process, and immediacy of teaching effects. Through the closed-loop design of the six stages, it achieves full-process teaching management encompassing "pre-class assessment, in-class guidance, and post-class consolidation." It can effectively stimulate students' learning initiative and enhance classroom teaching efficiency, and is widely employed in university classroom teaching and curriculum design [3].

1.3 Research Significance

On the theoretical level, the deep integration of the BOPPPS teaching method with the Fundamental Accounting course enriches the theoretical system of instructional design for Fundamental Accounting, providing theoretical support for the application of modular teaching methods in foundational accounting courses. On the practical level, through the scientific design of the six BOPPPS stages, it addresses the difficult problems of traditional Fundamental Accounting teaching, enhances students' classroom participation and learning interest, helps students efficiently understand abstract accounting knowledge, strengthens the connection between theory and practice, cultivates application-oriented accounting talents that meet market demands, and simultaneously promotes the innovation and reform of teaching models for accounting majors in higher education institutions.

2. Current Teaching Situation of Fundamental Accounting and the Adaptability of the BOPPPS Teaching Method

2.1 Current Teaching Situation of the Fundamental Accounting Course

Singular Teaching Model, Insufficient Student Initiative. Currently, most university Fundamental Accounting courses still rely primarily on traditional classroom teaching. Teachers explain knowledge points sequentially according to the textbook chapters, with the classroom pace entirely controlled by the teacher. Students complete their learning only through listening to lectures and taking notes, lacking interactive segments such as group discussions, practical exercises, and case analyses. This leads to low student learning motivation, inability to fully concentrate in class, and easy forgetting of knowledge points, making it difficult to cultivate a sense of active learning.

Disconnect Between Theory and Practice, Weak Practical Ability. The Fundamental Accounting course is highly practical and requires teaching integrated with actual accounting operations. However, in traditional teaching, theoretical instruction occupies an excessively high proportion, while practical teaching is mostly concentrated in end-of-term simulation training, with a lack of in-class practical segments. Students lack intuitive cognition of practical operations such as filling out accounting vouchers, registering accounting books, and preparing financial statements [4]. Even if they master theoretical knowledge, they cannot quickly apply it to actual business processing, resulting in the phenomenon of "understanding theory but difficult to operate."

Lack of Targeted Teaching, Neglecting Differences in Learning Conditions. During the teaching process, teachers often conduct lectures according to a uniform teaching schedule and content, without fully considering differences in students' professional foundations and learning abilities. Some students with zero foundation are slower in understanding basic accounting concepts, while students with some foundation find the teaching content too basic, easily leading to uneven classroom teaching effectiveness.

One-Sided Teaching Evaluation, Difficult to Assess Comprehensively. Traditional Fundamental Accounting course evaluation mostly relies on closed-book final examinations, with daily performance accounting for a low proportion. Furthermore, daily performance is only based on assignments and attendance, failing to comprehensively reflect students' classroom participation, practical operational ability, and learning process. This singular evaluation model is not conducive to the long-term cultivation of students' professional competence.

2.2 Adaptability of the BOPPPS Teaching Method to the Fundamental Accounting Course

Fits the Introductory Nature of the Course, Reducing Learning Difficulty. Fundamental Accounting is an introductory professional course for students with no prior background. The BOPPPS teaching method, through its engaging Bridge-in stage, connects abstract accounting knowledge with real-life situations and enterprise cases, quickly capturing students' attention. By clearly defining teaching objectives, it allows students to clearly understand the learning focus and direction, effectively reducing students' resistance to unfamiliar professional knowledge and helping them quickly get started.

Strengthens Participatory Learning, Connecting Theory and Practice. The core of the BOPPPS teaching method is the Participatory Learning stage, which can design activities such as case analysis, group practice, and scenario simulations. This integrates practical content like filling out accounting vouchers and applying debit-credit bookkeeping rules into the classroom, allowing students to understand theoretical knowledge through hands-on operation and collaborative exploration, achieving "learning by doing, doing by learning" [5]. This perfectly fits the highly practical nature of the Fundamental Accounting course.

Relies on the Pre-assessment Stage to Accurately Grasp Learning Conditions. The Pre-assessment stage can quickly gauge students' preparation status and knowledge base. Based on the pre-assessment results, teachers can promptly adjust teaching priorities and pace, focusing explanations on students' weak points. This addresses the problem of neglecting learning differences in traditional teaching, enhancing the targetedness and effectiveness of teaching.

Constructs Closed-Loop Teaching, Ensuring Learning Effects. The BOPPPS teaching method forms a closed loop of knowledge learning through Pre-assessment, Participatory Learning, and Post-assessment. The Post-assessment stage instantly checks students' classroom learning effects, while the Summary stage organizes knowledge points and strengthens memory. Combined with diversified evaluation methods, it comprehensively assesses students' learning process and outcomes [6], meeting the demands of systematic teaching in the Fundamental Accounting course.

3. Instructional Design of the Fundamental Accounting Course Based on the BOPPPS Teaching Method

This paper takes the chapter "The Impact of Business Transactions on the Accounting Equation" from the Fundamental Accounting course as an example to construct a complete instructional design scheme based on the BOPPPS teaching method. This chapter is key content for students to master accounting methods, possessing both theoretical and practical aspects, and is suitable for the application of the BOPPPS teaching model.

3.1 Basic Teaching Information

Course Name: Fundamental Accounting. Teaching Content: The Impact of Business Transactions on the Accounting Equation. Target Students: First-year students majoring in economics and management. Class Duration: 45 minutes. Teaching Philosophy: BOPPPS six-step closed-loop teaching method. Learning Condition Analysis: Students have just been introduced to accounting and have already mastered accounting elements and the basic accounting equation. They cannot yet analyze changes in the equation in conjunction with actual business, have relatively weak logical thinking skills, and prefer cases, practical exercises, and classroom interaction.

Teaching Objectives: Combining the objective-oriented nature of the BOPPPS teaching method, teaching objectives are set from three dimensions: knowledge, ability, and competence. Knowledge Objectives: Memorize the accounting identity "Assets = Liabilities + Owner's Equity"; master the four categories and nine types of business transactions; clarify the impact of each transaction type on both sides of the equation. Ability Objectives: Be able to independently judge the types of daily business transactions; accurately analyze the increases and decreases in accounting elements after a transaction occurs; proficiently verify the equilibrium relationship of the accounting equation. Competence Objectives: Establish rigorous and meticulous accounting thinking; cultivate an objective, realistic, and standardized professional habit in bookkeeping; enhance the sense of responsibility for accounting positions.

Teaching Key and Difficult Points: Key Point: The classification of nine types of business transactions; the rules governing increases and decreases in elements. Difficult Point: Analysis of the impact of complex business transactions

on the accounting equation.

3.2 Instructional Design of the Six BOPPPS Stages

3.2.1. B - bridge-in: course introduction (5 minutes)

(1) Introduction Method: Real-life example + scenario-based questioning.

Scenario Introduction: Xiaoming starts his own business by opening a stationery store. A series of daily operations, such as investing capital, borrowing money to purchase goods, selling merchandise, and paying rent, all constitute business transactions in accounting terms.

(2) Questioning to Stimulate Interest: What happens to the store's assets when capital is invested? How do the store's financial relationships change when borrowing money from a friend? After all these business activities occur, can the accounting equation still remain in balance?

(3) Connecting with Prior Knowledge: Review the core formula from the previous lesson, "Assets = Liabilities + Owner's Equity," leading into the theme of this lesson: exploring the principle that the accounting equation always remains in balance after all business transactions occur.

(4) Teaching Purpose: Reduce learning difficulty by connecting to real life, quickly focus students' attention, and build a bridge between old and new knowledge.

3.2.2. O - objective: clarifying learning objectives (3 minutes)

The teacher announces the learning tasks for the lesson, allowing students to clearly know what to learn and what they will be able to do: distinguish the major categories of daily business transactions; understand how each transaction causes increases or decreases in assets, liabilities, and owner's equity; for any given business transaction, quickly determine its type and verify the balance of the equation; understand the underlying logic of why the accounting identity always holds true. Simultaneously, the key and difficult points of this lesson are pointed out, allowing students to follow the lecture with clear priorities and direction in their learning. By clearly presenting the objectives and key/difficult points, students are made aware of the learning tasks and core content.

3.2.3. P - pre-assessment: gauging learning conditions, adjusting teaching strategies (7 minutes)

Pre-assessment Form: Oral questions + brief in-class quiz.

(1) Oral Questions: What is the basic accounting equation? What are the common items included in assets, liabilities, and owner's equity?

(2) Paper Quiz (2 basic questions): When an owner invests capital, which category of element changes? When a business repays debt using bank deposits, how do assets change?

(3) Feedback on Learning Conditions: Based on students' answers, it is found that most students can only recite the formula but cannot analyze element changes in conjunction with business transactions. This confirms the need to focus the lesson on explaining business examples and summarizing rules, slowing down the introductory pace.

(4) Teaching Purpose: Accurately identify students' weak points, adjust the classroom teaching pace, and achieve individualized instruction. Focus subsequent explanations and intensive training in the Participatory Learning stage to address these points, realizing tailored teaching.

3.2.4. P - participatory learning: core stage, interactive exploration + practical application (20 minutes)

Participatory learning is the core of the BOPPPS teaching method. It adopts a model combining focused teacher explanations, case breakdowns, group discussions, and quick-response classroom quizzes, deeply integrating theoretical knowledge with practical application. It is carried out in four steps:

(1) Focused Theoretical Explanation: Summarize the general rules of the four major categories of business transactions: An increase and a decrease within assets on the left side of the equation keep the total unchanged; an increase and a decrease within equity on the right side keep the total unchanged; a simultaneous increase on both sides of the equation leads to an equal total increase; a simultaneous decrease on both sides leads to an equal total decrease.

(2) Step-by-step Explanation of Nine Classic Business Examples: Receiving cash investment from an owner; borrowing a short-term loan from a bank; purchasing raw materials with bank deposits; repaying previous accounts payable with bank deposits; converting capital reserves into paid-in capital; withdrawal of investment by an owner; retention of earned profits within the

business; accruing unpaid expenses; using surplus reserves to cover a deficit. For each transaction, the teacher guides students to mark: which element increases, which element decreases, and whether the equation remains in balance.

(3) Group Collaborative Exploration: In groups of four, students are given five business transaction cases. The groups collaboratively analyze: the accounting elements involved, the direction of increases/decreases, the type of business transaction, and whether the equation remains in balance. The teacher circulates among the groups, providing real-time guidance and answers, encouraging active communication and peer support. The teacher gives timely reminders for common problems arising in group discussions and corrects erroneous lines of thinking.

(4) Classroom Quick-Response Interaction: The teacher randomly presents questions, and students raise their hands to answer. This enlivens the classroom atmosphere and strengthens immediate memory.

(5) Teaching Purpose: Abandon the lecturing model, enabling students to use their brains, speak, and write, truly achieving "learning by doing, insight through learning."

3.2.5. P - post-assessment: instant verification, identifying and filling gaps (7 minutes)

The Post-assessment stage is closely linked to the teaching objectives of this lesson, testing the effectiveness of students' classroom learning. Stratified test questions are designed to cater to both basic proficiency and advanced application, verifying learning outcomes in class.

(1) Basic Required Questions (for all students): Examine mastery of core knowledge.

Write out the element changes for the following transactions and determine if the equation balances: The business withdraws cash from the bank for petty cash; receives advance payment from a customer for goods; pays employee salaries via bank deposit.

(2) Enhancement and Extension Questions (for capable students): Enhance knowledge application ability. Briefly explain: The reason why the accounting equation always remains in balance regardless of the type of business transaction that occurs.

(3) After Post-assessment completion: The teacher marks on the spot and provides instant feedback. Supplement explanations are given for persistent problems, and common mistakes are uniformly corrected to achieve in-class digestion of knowledge points, ensuring students master the key and difficult knowledge during the lesson and eliminating knowledge gaps.

3.2.6. S - summary: organizing knowledge, consolidating and enhancing (3 minutes)

(1) The teacher and students jointly review and organize the knowledge framework of this lesson.

(2) Condensed Memorization Tip: "Same side, one up one down, total unchanged; Different sides, both up or both down, total changes; Myriad businesses ever-changing, the equation remains eternal."

(3) Assign Post-Class Tasks: Complete the post-class business transaction exercises; preview the next section on accounting subjects; thereby forming a teaching closed loop.

3.3 Design of Teaching Evaluation

Combining the process-oriented characteristics of the BOPPPS teaching method, a diversified teaching evaluation system is constructed to change the traditional single end-of-term assessment model [7]:

Process-Based Evaluation (60%): Includes classroom participation (group discussions, class presentations, speaking contributions, 20%), pre-assessment and post-assessment results (15%), quality of post-class homework completion (15%), and performance in practical exercises (10%). This comprehensively assesses the student's learning process.

Summative Evaluation (40%): End-of-term closed-book examination, assessing the overall mastery of course knowledge, with emphasis on the comprehensive application of theoretical knowledge and practical operations.

Through the combination of process-based and summative evaluation, the learning effect is comprehensively and objectively reflected, motivating students to focus on daily learning and classroom participation [6].

4. Application Effects and Reflections on the BOPPPS Teaching Method in the Fundamental Accounting Course

4.1 Application Effects

This teaching case strictly follows the six BOPPPS processes: Bridge-in – Objective – Pre-assessment – Participatory Learning – Post-assessment – Summary. It fits the introductory characteristics of the Fundamental

Accounting course, is based on the zero-foundation learning conditions of first-year students, and abandons the traditional lecture-based knowledge instillation model. It highlights the student as the main body and the teacher as the guide, integrating theoretical knowledge, case analysis, classroom practice, and effect detection into one cohesive unit. It not only completes the transfer of classroom knowledge but also cultivates students' accounting professional thinking and practical application abilities. It is a highly practical and easily implementable BOPPPS teaching case suited for the Fundamental Accounting course.

4.1.1 Significant improvement in student learning interest and engagement

The BOPPPS teaching method, through interactive segments like engaging introductions, group collaboration, and class presentations, changed the traditional singular model of "teachers lecture, students listen." Students' initiative to participate in class discussions and practical exercises significantly increased, the classroom atmosphere became more active, the resistance of zero-foundation students to the accounting course was noticeably reduced, and their learning interest continuously strengthened [8].

4.1.2 Significant enhancement in teaching targetedness and effectiveness

The Pre-assessment stage accurately grasped student learning conditions, allowing the teacher to adjust teaching content and pace based on students' knowledge weaknesses, avoiding ineffective teaching. The Participatory Learning stage focused on key and difficult points, strengthening knowledge application through practical exercises. Students' mastery of core content such as debit-credit bookkeeping rules and preparing journal entries significantly improved, and the classroom knowledge absorption rate increased markedly [9].

4.1.3 Cultivation of students' practical ability and comprehensive competence

Integrating practical operations into the classroom participation stage enabled students to quickly apply theoretical knowledge to actual business processing. Their practical accounting operation ability, logical thinking ability, and problem-solving ability were effectively exercised [10]. The group cooperation model cultivated students' teamwork and communication skills, and the rigorous practical requirements helped students establish standardized accounting professionalism.

4.1.4 More comprehensive and scientific teaching evaluation

The diversified evaluation system considers both the learning process and learning outcomes, effectively avoiding the phenomenon of students "cramming before the exam." It motivates students to value daily learning accumulation, and the evaluation results more accurately reflect students' professional abilities and learning attitudes.

4.2 Teaching Reflections

4.2.1 Need for further optimization of teaching time management

The BOPPPS teaching method has multiple stages, and the time for student group discussions and practical exercises in the Participatory Learning stage may easily exceed expectations, potentially leading to time constraints for the subsequent Post-assessment and Summary stages. In future teaching, it is necessary to plan the time for each stage in advance, strengthen classroom pace control, and adjust flexibly according to the actual learning situation of the students [11].

4.2.2 Need to enhance group collaboration efficiency

In some groups, there is an issue of uneven student participation, where a few students dominate the discussion while others passively follow. In the future, it is necessary to optimize group formation methods, clarify division of labor within groups, and establish group evaluation mechanisms to motivate every student to actively participate in collaborative learning.

4.2.3 Need to further enrich teaching resources

To better support the Participatory Learning and practical stages, it is necessary to further enrich teaching cases, practical training materials, and online teaching resources. By combining with digital accounting training platforms, practical teaching scenarios can be expanded, allowing students to encounter accounting business scenarios closer to actual enterprise realities, thereby strengthening practical teaching effects [12].

5. Strategies for Optimizing the Application of the BOPPPS Teaching Method in the Fundamental Accounting Course

5.1 Precisely Design Each Teaching Stage to

Fit Course Characteristics.
Differentiate the design of BOPPPS stages based on the content characteristics of different chapters in Fundamental Accounting. For highly theoretical chapters (e.g., accounting elements, accounting assumptions), focus on the engaging nature of the Bridge-in and case discussions in Participatory Learning. For highly practical chapters (e.g., accounting vouchers, accounting books), strengthen practical exercises in the Participatory Learning stage, ensuring that the design of each stage is highly compatible with the teaching content to enhance teaching targetedness.

5.2 Integrate Information Technology-Based Teaching Methods to Enhance Teaching Efficiency.

Utilize information-based teaching platforms such as Xuexitong (Chaoxing) and Rain Classroom to optimize stages like Pre-assessment, Post-assessment, and assignment distribution. This allows for real-time data statistics and feedback, saving classroom time. Use online accounting training software, micro-lecture videos, and other resources to expand pre-class preparation and post-class consolidation channels, creating a blended online-and-offline BOPPPS teaching model. This enriches teaching formats and enhances teaching efficiency [13].

5.3 Strengthen Teacher Teaching Ability Training to Ensure Teaching Quality.

The BOPPPS teaching method places higher demands on teachers' classroom management skills, interactive guidance abilities, and learning situation analysis capabilities [14]. Universities need to strengthen training for accounting professional teachers, organizing them to learn the design concepts and practical skills of the BOPPPS teaching method. Encourage teachers to conduct teaching seminars and experience exchanges, continuously optimizing instructional design and enhancing teaching standards.

5.4 Improve the Teaching Evaluation System, Strengthening Process Assessment.

Further refine process-based evaluation indicators, incorporating aspects like classroom speaking contributions, group contribution degree, and practical operation accuracy into the evaluation scope, and increase the proportion of process-based evaluation. Introduce a combination of student self-assessment, intra-group peer evaluation, and teacher evaluation to make the evaluation more comprehensive and objective, fully leveraging the motivating and guiding role of teaching evaluation.

6. Conclusion

With its modular, closed-loop, and student-centered advantages, the BOPPPS teaching method is highly compatible with the teaching characteristics and talent cultivation needs of the Fundamental Accounting course. It can effectively address the pain points of the traditional Fundamental Accounting teaching model, stimulate students' learning interest, enhance classroom teaching efficiency, and strengthen the integration of students' theoretical knowledge and practical operational abilities. Applying the BOPPPS teaching method in Fundamental Accounting instruction requires precisely designing the six teaching stages based on course content and student learning conditions, integrating information technology-based teaching methods, improving the diversified evaluation system, and continuously optimizing the teaching process. In the future, against the backdrop of the continuous transformation and upgrading of the accounting industry, it is necessary to further promote the deep integration of the BOPPPS teaching method with the Fundamental Accounting course. Combining digital and intelligent teaching trends, teaching models should be continuously innovated to make Fundamental Accounting teaching even more suitable for the needs of cultivating application-oriented talents. This will lay a solid foundation for students' subsequent professional course learning and the cultivation of accounting professionalism, while also providing transferable ideas and methods for the teaching reform of other economics and management courses in higher education institutions.

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References

[1] Yuan Le. Practice and Exploration of the Curriculum Reform of "Big Data Fundamental Accounting" in Higher

Vocational Colleges from the Perspective of Curriculum Ideology and Politics. Industry and Science and Technology Forum, 2025(23): 150-152.
[2] Zhao Haitao, Huang Yanqing. Dilemmas and Responses of Innovation and Entrepreneurship Teaching for History Majors under the Background of Cultural and Tourism Integration. New Curriculum Research, 2026(4): 97-100.
[3] Wang Liping, Li Zhenhua. Exploration of Ideological and Political Reform in the International Logistics Course Based on BOPPPS. Modern Business Trade Industry, 2025(21): 50-52.
[4] Zheng Rui, Meng Jin. Reconstruction and Implementation Path of Accounting Teaching Model Based on Knowledge Graph. Commercial Accounting, 2026(5): 118-121.
[5] Qiu Wenbo. Research on the Design and Application of Blended Teaching for the Pure Electric Vehicle Structure and Maintenance Course Based on the BOPPPS Model. Automobile Maintenance and Repair, 2026(6): 1-3.
[6] Zhang Meiying. Innovative Application of the "BOPPPS + Flipped Classroom" Blended Teaching Model in the "Psychology" Course. Journal of Jinzhong University, 2026(1): 90-96.
[7] Kang Rui. Research on Internal Control Teaching Based on the BOPPPS Method. Economist, 2026: 194-195, 293.
[8] Liu Lijia. Practice of the Higher Vocational Public English Teaching Model Based on the Integration of the BOPPPS Model and AI Technology. China New Telecommunications, 2026(3): 209-211.
[9] Su Qinwen. Research on the Application of the Case Teaching Method Based on the BOPPPS Model in the "Chinese Tourism Geography" Course of Secondary Vocational Schools. Jinan: Shandong Normal University, 2024.
[10] Tang Qingyan. Application and Exploration of the Teaching Model Based on "BOPPPS + PAD Class" in the "Fundamental Accounting" Course of Secondary Vocational Schools. Nanning: Nanning Normal University, 2025.
[11] Li Xiyan, Liu Kaifeng, Qi Zhenqiang, et al. Application of the BOPPPS Teaching Model Based on PDCA Cycle Theory in the Teaching of Civil Engineering Materials Course . Construction Economy, 2025(12): 369-373.
[12] Li Qing. Research on the Application of the Blended Teaching Model Based on "BOPPPS + Rain Classroom" in the Internal Control Course. Journal of Xinyang Agriculture and Forestry University, 2024(3): 149-153.
[13] Li Xulong, Zhang Guiqing, Qian Junwei. Research on the Smart Teaching System of Public Physical Education Courses in Universities Based on the BOPPPS Model from the Perspective of Effective Teaching. Journal of Higher Education, 2025(10): 27-30, 35.
[14] Wu Lei, Wang Yan. Instructional Design for Theory-Practice Integrated Classroom Teaching under the BOPPPS + PAD Blended Teaching Model — Taking the Fluid Conveying Course as an Example. Yunnan Chemical Technology, 2025(6): 155-159.