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An Exploration of the Blended Learning Model for the Course of "Public Finance" in Colleges

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Abstract

This paper aims to explore the feasibility and effectiveness of applying the blended learning model in the college course of "Public Finance." The traditional classroom teaching model often revolves around the teacher, with students passively receiving knowledge and lacking interaction and practical opportunities. In contrast, the blended learning model combines online and offline teaching methods, providing a more flexible and personalized learning experience. This paper first introduces the importance and objectives of the course of "public finance", and then discusses the concept of blended learning and its application in teaching. This study can provide reference and inspiration for improving the teaching quality and student learning outcomes of the course of "public finance".

Keywords

Blended Learning Model, Public Finance, Colleges.

1. Introduction

The blended learning model refers to a teaching approach that combines traditional face-to-face instruction with online learning. In the current educational landscape, blended learning has garnered widespread attention and research. In the field of the course teaching of "Public Finance", researchers have also begun exploring how to utilize the blended learning model to enhance teaching effectiveness and student learning experiences.

Recent studies on blended learning have shifted their focus towards educational technology, learning theories, and teaching methods. According to Nguyen[5], blended learning integrates conventional FTF（face-to-face）learning and digital learning and it involves students' independent revision and collaborative learning in the classroom when students performed self-study with their professors. Cronje[2]argues that the definition of blended learning should be built around learning theory and should refer to a blend of direct instruction and learning-by-doing. The model should include context, theory, method and technology and the appropriate use of a mix of theories, methods and technologies to optimise learning in a given context. Similarly, Ali et al. [1] conducted a comparative study on the effectiveness of blended learning and traditional classroom instruction, highlighting the advantages of blended learning in improving student engagement and achievement. Xiao [8] investigated the implementation of blended learning in fiscal education courses, finding that it enhances students' motivation and understanding of fiscal concepts. Additionally, Zhou [10]focused on the students' satisfaction in the mixed teaching process of " Finance"., conducting that students were satisfied with blended learning for the design factors of teachers' teaching content and teaching links in the whole process of teaching before, during and after class. Despite the benefits, recent studies have also identified challenges associated with blended learning in fiscal education. For example, Pirrone et al. [6]proposed strategies for effectively integrating face-to-face and online components in blended learning environments to address issues such as student engagement and interaction. Moreover, Liu and Li[3] focused the factors and mechanisms influencing the

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effectiveness of blended learning , conducting that in a blended learning environment, students' perceptions of ease of use, usefulness, interaction behavior, and learning atmosphere have a positive impact on their knowledge acquisition and subjective emotional experiences.

In conclusion, recent research indicates that blended learning is a promising approach for enhancing fiscal education, but careful consideration of instructional design and support mechanisms is needed to maximize its effectiveness.

2. Current Teaching Model of “Public Finance”

The course "Public Finance" is a core subject designated by the Ministry of Education for undergraduate programs in the field of economics and management. It is one of the key backbone courses supporting the discipline system of applied economics. Currently, most universities in China use the key textbooks designated by the Marxism Theory Research and Construction Project, such as "Introduction to Public Finance," as teaching materials. Upon completion of this course, students are expected to achieve the following objectives.

In terms of knowledge objectives, students should be proficient in understanding the theories of public finance, establishing a logical knowledge system covering fiscal foundation theory, fiscal revenue theory, fiscal expenditure theory, fiscal management, and policy theory, and grasp the essence of socialist finance: "for the people, by the people." In terms of ability objectives, students should be able to apply empirical analysis and normative analysis methods to analyze national fiscal policies and fiscal behaviors, and promote the improvement of operational performance in enterprises and institutions. In terms of quality objectives, students should be able to apply fiscal knowledge to deepen their understanding of the logic of trade-offs between individual interests, local interests, and overall interests, enhance national pride and confidence, and strengthen their confidence in the Chinese Communist Party's leadership in continuously developing the economy and culture to create a better future.

Currently, traditional teaching model of the course of “Public Finance” primarily relies on offline teaching, adopting a teacher-led, passive learning mode. However, several issues exist with this approach. Firstly, the teaching model is monotonous, mainly focusing on lecturing theoretical knowledge, concepts, and principles[4]. Secondly, there is minimal classroom interaction, leading to low student engagement[9]. Thirdly, the assessment methods are limited, with traditional exams focusing only on theoretical knowledge, lacking feedback on the application of knowledge[7].

Overall, traditional teaching is relatively ineffective and fails to help students achieve course objectives. Based on the course of "Public Finance," exploring the design scheme of blended teaching mode is significant. It will help to improve the quality of the course and teaching effectiveness, promote active participation and communication between teachers and students, and drive the course towards a more flexible, personalized, and diversified direction.

3. Design Proposal for Blended Learning Model

Based on previous research and the author's teaching experience, the reform of the course "Public Finance" in blended teaching mode can be approached from several aspects. Firstly, adhering to the standards of "advanced, innovative, and challenging", the course content should be restructured to organically integrate the imparting of theoretical knowledge with the cultivation of practical skills. Secondly, efforts should be made to develop online resources extensively, ensuring a deep integration of online and offline components. Thirdly, the evaluation system should be improved to promote classroom interaction and extracurricular practical activities.

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3.1. Reconstruction of Teaching Content

In terms of restructuring the course content, it is suggested to deconstruct the existing curriculum system and construct modular teaching units composed of "knowledge points" and "skill points".

Previous research has shown that traditional course structures often tend to be too linear, emphasizing the transmission of theoretical knowledge while neglecting the cultivation of practical skills. Therefore, it is recommended to break down the course into multiple independent modules, each containing one or more related knowledge and skill points. Such modular teaching units can allow for more flexible arrangement of course content, enabling students to progressively learn and master different knowledge and skills, while also enhancing the integration of theory and practice. For instance, one module may include theoretical knowledge about fiscal policy, as well as practical skills in analyzing and interpreting fiscal data. According to table 1, this design of modular teaching units helps to improve the practicality of the course and the learning outcomes of students, enabling them to better tackle future challenges.

Table 1 The design of "knowledge points" and "skill points"

Part	Knowledge points	Skill points
Basic theory of finance	Public finance and public finance ideologies, functions of public finance	1. Understanding of the principles and ideologies of public finance 2. Comprehension of the functions and roles of public finance;
Theory of fiscal expenditure	General principles of fiscal expenditure, government consumption expenditure, government investment expenditure, social security expenditure	1. Ability to integrate knowledge from disciplines such as economics and management, and apply it to analyze the fiscal expenditure policies and structures of different eras in China, taking into account national systems, the national conditions of China, and using economic and management principles. 2. Capability to analyze and speculate on the fiscal expenditure structures and behaviors of China and major Western countries.
Theory of fiscal revenue	General principles of fiscal revenue, taxation, non-tax revenue, government bonds	1. Ability to integrate knowledge from disciplines such as economics and management, and apply it to analyze the fiscal revenue policies and structures of different eras in China, taking into account national systems, the national conditions of China, and using economic and management principles 2. Capability to analyze the fiscal revenue structures and behaviors of China and major Western countries
Theory of fiscal management and policy	Government budget, fiscal system, fiscal balance and fiscal policy, international finance	1. Ability to analyze and evaluate government budgets 2. Understanding of the structure and operation of fiscal systems 3. Capacity to assess fiscal balance and develop fiscal policies 4. Proficiency in analyzing international financial issues related to fiscal management and policy

3.2. Development of Online Resource

The development of online resources includes micro-videos, test resources, and online tutoring and Q&A. In terms of micro-video development, existing online open course resources such as

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MOOC resources can be fully utilized. At the same time, based on the characteristics of the course, localized private lectures can be produced, dividing the course content suitable for online self-learning into independent knowledge points and recording them into micro-videos, with each video lasting 5-7 minutes. Taking "Public Finance" as an example, micro-videos can be produced on the following knowledge points in Table 2.

Table 2 Knowledge points of micro-video

Part	Theme	Knowledge point of micro-video
Chapter 1	Public Finance and Public Finance Ideologies	1.1 Overview of Public Finance 1.2 Theories of Public Finance
Chapter 2	Functions of Public Finance	2.1 Government and Market 2.2 Fiscal Functions 2.3 Provision of Public Goods 2.4 Public Production and Public Pricing
Chapter 3	Fiscal Expenditure Overview	3.1 Overview of Fiscal Expenditure 3.2 Scale and Structure of Fiscal Expenditure 3.3 Economic Effects of Fiscal Expenditure 3.4 Performance and Reform of Fiscal Expenditure
Chapter 4	Government Consumption Expenditure	4.1 Administrative Management Expenditure 4.2 Defense Expenditure 4.3 Education, Science, Culture, and Health Expenditure
Chapter 5	Government Investment Expenditure	5.1 Overview of Government Investment 5.2 Infrastructure Investment 5.3 Expenditure on Agriculture, Rural Areas, and Farmers
Chapter 6	Social Security Expenditure	6.1 Overview of Social Security 6.2 Social Insurance Expenditure 6.3 Social Assistance Expenditure
Chapter 7	General Overview of Fiscal Revenue	7.1 Overview of Fiscal Revenue 7.2 Scale of Fiscal Revenue 7.3 Structure of Fiscal Revenue
Chapter 8	Taxation Theory	8.1 General Introduction to Taxation 8.2 Value-Added Tax (VAT) 8.3 Consumption Tax 8.4 Corporate Income Tax 8.5 Personal Income Tax
Chapter 9	Non-tax Revenue	9.1 Government Charges 9.2 Government Funds 9.3 State-Owned Capital Operation Income 9.4 Social Insurance Fund Income
Chapter 10	Government Debt	10.1 Overview of Government Bonds 10.2 Government Bond Burden 10.3 Government Bond Management
Chapter 11	Fiscal Management	11.1 Government Budget 11.2 Fiscal System
Chapter 12	Fiscal Policy and International Finance	12.1 Fiscal Balance and Fiscal Policy 12.2 International Finance

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In online learning, in-class quizzes and chapter tests are essential components of testing resources. They effectively help students consolidate knowledge, assess learning outcomes, promote independent learning, and improve teaching quality. It is recommended to establish a chapter test question bank for the automatic generation of test questions. In-class quizzes are mainly used to assess students' understanding of the content taught in class, typically covering key knowledge and skills points explained during the lesson. These quizzes can be in the form of multiple-choice questions, fill-in-the-blank questions, true/false questions, etc., for quick and effective assessment of student learning. Through in-class quizzes, teachers can promptly understand students' comprehension of knowledge points, providing a basis for subsequent teaching adjustments and guidance.

Establishing an online discussion forum or social media group facilitates communication and interaction among students. Relevant discussion topics can be set before and after class for both teachers and students to discuss and exchange ideas. Pre-class discussions mainly focus on guiding questions to help students preview and think about the upcoming knowledge points, directing their thinking and stimulating their interest in learning, thus preparing them for classroom teaching. Post-class discussions mainly involve divergent topics to help students extend and expand upon the knowledge learned in class, stimulate their creative thinking, and promote a deeper understanding and application of the learned knowledge.

Utilize the Chaoxing platform to establish a real-time online Q&A platform where students can ask questions to course instructors and teaching assistants during designated time slots. Instructors and TAs provide timely answers and guidance. This format enables students to receive help promptly when encountering problems, thereby improving learning efficiency. Additionally, offer open appointment-based online tutoring services where students with specific needs can schedule one-on-one online tutoring sessions at suitable times. In these sessions, teachers provide targeted tutoring and answer questions according to students' needs.

3.3. Design of Evaluation System

Centered around student development capabilities, with the guiding principle of "diversity, emphasis on process, and ability-oriented assessment," the evaluation system shifts from primarily assessing knowledge to primarily assessing abilities. It constructs a diversified evaluation plan including online and offline, standard and non-standard assessments, with a focus on examining students' ability to apply knowledge to analyze and solve problems, increasing the weight of process assessment.

The course adopts a combination of formative and summative assessment methods, with formative assessment accounting for 50%. This includes 20% for online learning (involving video learning records, topic discussions, and chapter test scores), emphasizing students' participation in online self-learning and mastery of knowledge points, 15% for classroom performance, and 15% for practical applications (such as mind map creation, micro-course production, and case analysis). The final exam accounts for 50% of the total assessment.(see Table 3)

Table 3 Elements of Formative assessment

Online learning	20%	Video learning logs; Topic discussions; Chapter tests;
Classroom performance	15%	Class participation; Attendance; Group presentations; Group task completion;
Practical application	15%	Mind map creation; Micro-lecture creation; Case analysis

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4. Implementation of Blended Learning Model

Based on the characteristics of the fiscal education course, it is suggested to adopt a flipped-style blended learning model, with alternating online and offline learning, organically integrating knowledge dissemination and skill development, with online sessions accounting for about 40% and offline sessions accounting for about 60%.

4.1. Student-Directed, Task-Driven Online Independent Learning

Before each chapter's online learning, teachers should assign students tasks to complete after studying the chapter's knowledge, allowing students to engage in self-directed learning with tasks. Online independent learning is organized by knowledge points, and teaching resources for each knowledge point are provided in a quest mode, including learning objectives, instructional videos, and in-class quizzes. Taking the section on "Social Assistance Expenditure" as an example, the online learning tasks could be as follows. Firstly, watch videos to understand the meaning and content of social security. Secondly, complete five related test questions on social assistance expenditure policies. Thirdly, consider the following question: Given the aging population in China, what suggestions would you make for the reform of the social assistance system? And upload the thinking results to the discussion forum. Students encountering problems during online learning can initiate discussions on the online platform or ask questions directly to the teacher. When common problems arise, teachers can guide group discussions.

4.2. Teacher-Guided, Case-Based Offline Collaborative Learning

During offline classroom teaching, teachers summarize and provide feedback on the online learning situation, consolidate and deepen key and difficult points, and then guide students to work in groups to analyze and solve practical economic problems and make economic decisions through case studies, achieving knowledge internalization and flexible application. Teachers can provide a real-world corporate financial management case, such as problems encountered in budgeting and control by a company. Students are divided into several groups, each responsible for analyzing the case and proposing solutions. In the analysis process, students can apply theoretical knowledge learned in fiscal education courses, such as budgeting methods and control techniques, to analyze problems in the case and propose solutions.

During group cooperation, students can discuss, share opinions, collectively analyze problems, and discuss solutions. Teachers can act as guides, encouraging students to raise in-depth questions, helping them clarify their thoughts, and providing necessary assistance and guidance. Finally, the group with the highest score is selected through online voting to present their analysis and solutions to the entire class. Such collaborative learning activities not only allow students to apply the knowledge they have learned in practical cases but also cultivate their teamwork and communication skills. Meanwhile, students can learn new perspectives and ideas from the analysis of other groups, enriching their knowledge and insights.

4.3. Task-Driven, Innovative Practice Based on Extracurricular Activities

Extracurricular activities refer to learning and practical activities outside the campus, which can be student-initiated club activities, voluntary services, or social practices.

In fiscal education courses, teachers can guide students to participate in fiscal-related competitions and contests, such as financial knowledge contests and financial planning competitions. Through participation in these competitions, students can improve their abilities, broaden their horizons, and deepen their understanding and application of fiscal knowledge.

Moreover, students can be encouraged to actively participate in financial clubs or financial practice teams. For example, students can join the school's investment club and participate in simulated stock trading and investment decision-making, learning financial analysis, portfolio

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management, and risk management knowledge. Additionally, students can participate in financial lectures and finance salons organized by the school, exchange ideas with industry experts, and learn about the latest financial trends and practical experiences.

Furthermore, teachers can organize students to participate in fiscal-related social practice activities. For example, students can participate in voluntary service activities for community financial management during their spare time, helping community organizations prepare and analyze financial statements or participate in community financial planning. Through such practical activities, students can not only apply theoretical knowledge learned in class to practical work but also develop practical skills and teamwork spirit.

On WeChat official accounts and teaching online platforms, display students' innovative practice results in a timely manner, guide the practice atmosphere, and accumulate credits for student practice activities. Awards and interviews are conducted at the end of the semester. Through the "practice-display-evaluation-reflection" mode, students' enthusiasm for applying knowledge can be stimulated.

5. Conclusion

By adopting a blended learning model with online and offline components, students engage in online independent learning, topic discussions, and extended reading, supplemented by in-class quizzes for immediate checks. Offline sessions focus on consolidating key and difficult points, with teachers guiding case analysis to help students develop critical thinking and innovative thinking. Through innovative teaching methods and the reorganization of teaching content, the integration of knowledge dissemination and skill development, and innovation training can be achieved, truly realizing the high-level and challenging nature of the course.

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