

ARTIFICIAL INTELLIGENCE-ENHANCED BLENDED LEARNING FOR ECONOMIC LAW: A NEW APPROACH FOR ECONOMICS AND MANAGEMENT EDUCATION IN CHINA

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Abstract: Economic Law education in Chinese universities, particularly for economics and management students, faces unique challenges, including complex legal content, limited classroom hours, and low student engagement. Traditional teaching methods often fail to connect theoretical knowledge with practical applications, leading to reduced interest and participation. This study explores an Artificial Intelligence (AI)-enhanced blended learning model tailored to the needs of economics and management students. By integrating AI technologies such as intelligent tutoring systems, adaptive learning platforms, and real-time analytics, the model personalizes learning experiences, improves feedback efficiency, and fosters student-teacher interaction. The approach combines digital resources with interactive online and offline activities to enhance student engagement and facilitate the practical application of legal knowledge. Preliminary results demonstrate significant improvements in student comprehension, participation, and problem-solving abilities. This AI-driven blended learning model provides a scalable framework for modernizing Economic Law education, aligning it with the evolving demands of interdisciplinary education in China.

Keywords: Artificial intelligence in education; Blended learning model; Economic law education; Personalized learning

1 INTRODUCTION

In Chinese universities, Economic Law serves as a critical foundational course for students in economics and management studies. Unlike the Economic Law courses tailored for law majors, which emphasize in-depth legal theory and rigorous case analysis, this course for economics and management students focuses on the practical application of legal principles in economic activities. However, traditional classroom-based teaching methods face significant challenges in engaging these students, who often perceive the subject as abstract and disconnected from their future careers.

The complexity of legal content, combined with limited classroom hours, makes it difficult for educators to fully cover both theoretical and practical aspects. Students in economics and management programs, accustomed to applied and interactive learning environments, frequently struggle with the memorization of legal terms and regulations, leading to low engagement and motivation. Moreover, the lack of practical problem-solving exercises further alienates students, reinforcing the perception that Economic Law is irrelevant to their professional goals.

To address these challenges, this study explores an Artificial Intelligence (AI)-enhanced blended learning model designed specifically for Economic Law courses in economics and management studies. This approach integrates intelligent tutoring systems, personalized learning paths, and interactive digital tools to align the course with the learning preferences of these students. By focusing on real-world applications, such as case-based exercises and scenario simulations, the model aims to make the subject more accessible and relevant.

This reform reflects broader trends in educational modernization and digital transformation in China. With the increasing adoption of AI technologies, there is a growing opportunity to transform traditional teaching methods into dynamic and engaging learning experiences. AI-driven tools not only provide real-time feedback but also enable instructors to design interactive, student-centered activities that bridge theoretical knowledge and practical skills.

By tailoring the Economic Law curriculum to the needs of economics and management students, this research seeks to enhance their interest and engagement in the subject. The AI-enhanced blended learning model emphasizes problem-solving, critical thinking, and collaboration, equipping students with the legal acumen necessary to navigate complex economic environments. This study contributes to the evolution of higher education in China, offering a scalable framework for integrating technology and pedagogy in similar interdisciplinary courses.

2 LITERATURE REVIEW

Economic Law education plays a vital role in the curriculum of economics and management studies in China, aiming to provide students with practical legal knowledge applicable to economic activities. However, the teaching of Economic Law for these students differs significantly from that for law majors. While the latter emphasizes in-depth legal theory and case analysis, the former focuses on applying legal principles to real-world business scenarios. Despite this distinction, traditional teaching methods have often failed to capture the interest of students in economics and

management, who perceive the subject as overly theoretical and disconnected from their professional needs [1-2]. Research has highlighted several challenges in the traditional teaching of Economic Law. The complexity of legal content, combined with limited classroom hours, often overwhelms students. Additionally, traditional lecture-based methods prioritize knowledge transmission over student engagement, leading to low participation rates and limited practical understanding [3-4]. These challenges have prompted calls for innovative teaching models that cater specifically to the needs of students in economics and management studies.

Blended learning has emerged as a promising approach to address these issues. By integrating online and offline teaching methods, blended learning offers greater flexibility and interactivity, enabling students to engage with the subject matter more effectively. Studies have shown that blended learning enhances student performance in business-related courses such as marketing and financial management by combining theoretical knowledge with practical applications [5-6]. However, its application in Economic Law education remains underexplored, particularly in the context of Chinese economics and management programs [7].

The integration of Artificial Intelligence (AI) into blended learning models has further transformed educational practices. AI technologies, such as intelligent tutoring systems, adaptive learning platforms, and data analytics tools, have demonstrated their ability to personalize learning experiences, provide real-time feedback, and improve overall teaching effectiveness [8-9]. In the context of economics and management education, AI has been applied to tailor learning content to individual needs, helping students better understand complex topics and engage more deeply with the material. Despite these advancements, the use of AI in Economic Law education for economics and management students is still in its infancy [10].

Existing literature on Economic Law education and AI-enhanced blended learning highlights several gaps. Most studies focus on generic blended learning models or the application of AI in STEM fields, leaving the specific needs of students in economics and management studies insufficiently addressed [1, 5]. Furthermore, there is limited research on how AI can be leveraged to design interactive, application-oriented learning activities that bridge the gap between theoretical knowledge and practical skills [4, 8].

This study seeks to address these gaps by proposing an AI-enhanced blended learning model tailored specifically to Economic Law education in Chinese economics and management studies. By combining AI technologies with interactive teaching strategies, this model aims to enhance student engagement, improve learning outcomes, and equip students with the legal knowledge and skills necessary for their careers. In doing so, the study contributes to the ongoing modernization of higher education and demonstrates the potential of AI to transform traditional teaching methods in interdisciplinary courses [2, 10].

3 RESEARCH METHODOLOGY

This section introduces the research methods used to design and implement the AI-enhanced blended learning model for the Economic Law course. It includes the teaching philosophy, the integration of AI technologies, and the practical steps for course implementation.

3.1 Teaching Philosophy

The teaching philosophy adopted in this study is rooted in the goal-problem-oriented approach, which restructures course content around clear objectives and problem-solving tasks. This approach emphasizes setting specific learning goals that align with the students' academic and professional needs. For the Economic Law course, these goals include mastering key legal concepts, applying legal principles to business scenarios, and fostering critical thinking skills.

The course design integrates problem-based learning (PBL) principles by introducing practical, real-world legal problems. Each module begins with a clearly defined objective, followed by a series of guided questions and tasks designed to facilitate active learning. This method encourages students to engage critically with the material, promoting a deeper understanding of the subject while addressing the challenges of traditional rote memorization.

3.2 AI-Supported Blended Learning Approach

The blended learning model integrates AI technologies with traditional teaching methods to enhance student engagement and learning outcomes. AI tools were used to align learning objectives with the content and individual student profiles. Personalized study plans were developed using intelligent platforms, while resources such as video lectures, interactive question banks, and case libraries were prepared to support the learning process. AI tutors facilitated real-time Q&A and provided tailored guidance, helping students address challenges in understanding complex legal topics.

Interaction within this model occurred both online and offline. Online, students engaged with tasks, discussions, and assessments on AI-driven platforms, which provided real-time feedback and progress tracking. Offline sessions, informed by AI-generated insights, focused on targeted group discussions and case analyses, encouraging collaboration and practical problem-solving. Dynamic feedback mechanisms ensured continuous improvement, with AI tools generating individualized reports for students and instructors to identify learning gaps and adjust strategies accordingly.

3.3 Course Implementation

The AI-enhanced blended learning model was implemented for second-year undergraduate students in accounting and business management programs. These students require a practical understanding of legal concepts to navigate business environments effectively. The course design balanced online and offline activities to integrate theoretical and practical knowledge. Online sessions delivered lectures, interactive exercises, and progress tracking, while offline activities such as case studies and group discussions reinforced the application of legal principles.

Assessment methods combined formative and summative approaches, including AI-adaptive quizzes, problem-solving tasks, and traditional written tests. Real-time feedback provided students with actionable insights into their progress, while instructors utilized the data to refine their teaching strategies. This comprehensive approach ensured that the course addressed the specific needs of economics and management students, improving engagement and preparing them for practical applications in their professional careers.

4 KEY FINDINGS AND CHALLENGES

This section explores the differences observed before and after implementing the AI-enhanced blended learning model, highlights existing weaknesses and challenges, and discusses the integration of commonly used AI-assisted teaching tools in China. It also reflects on the specific requirements of teaching Economic Law to economics and management students.

4.1 Differences Before and After AI-Enhanced Teaching

Prior to the integration of AI, the teaching of Economic Law for economics and management students in China faced significant challenges. Traditional lecture-based methods relied heavily on the transmission of dense legal theory, which often alienated students. Engagement levels were low, as students perceived the subject as irrelevant to their career goals. Assessments primarily focused on memorization, offering little opportunity for critical thinking or problem-solving.

After incorporating AI, notable improvements were observed:

- (1) **Enhanced Engagement:** AI tools such as intelligent tutoring systems and adaptive learning platforms personalized the learning experience, making content more relatable and engaging.
- (2) **Improved Feedback Mechanisms:** Real-time feedback allowed students to identify and address their weaknesses promptly, while instructors could adjust teaching strategies based on data-driven insights.
- (3) **Increased Practical Applications:** Case-based scenarios and interactive exercises, supported by AI, bridged the gap between theoretical content and practical business applications.
- (4) **Flexible Learning Paths:** Students could progress at their own pace, ensuring a better understanding of complex legal concepts.

4.2 Weaknesses and Challenges

Despite the benefits, several weaknesses and challenges remain in the AI-enhanced teaching model:

- (1) **Technical Barriers:** Not all students were familiar with AI tools, requiring additional training and support.
- (2) **Resource Limitations:** Developing high-quality digital resources, such as videos and interactive case studies, demanded significant time and investment.
- (3) **Over-Reliance on AI:** Some students relied excessively on AI tools, which reduced their initiative to engage critically with the material.
- (4) **Assessment Complexity:** Balancing formative and summative evaluations while incorporating AI feedback required careful planning and execution.

4.3 Integration of Common AI Teaching Tools in China

This study leveraged five AI tools commonly used in Chinese higher education to address these challenges:

- (1) **Wisdom Tree:** Used for delivering video lectures and monitoring student progress.
- (2) **Rain Classroom:** Integrated for interactive online quizzes, real-time feedback, and classroom interaction.
- (3) **XuetangX:** Provided a platform for MOOCs, enabling students to access supplementary resources.
- (4) **iFlytek Learning Assistant:** Assisted with personalized learning plans and real-time Q&A.
- (5) **Intelligent Question Bank Systems:** Enabled adaptive testing and automated grading.

4.4 Teaching Economic Law to Economics and Management Students

Economic Law courses for economics and management students in China emphasize the practical application of legal principles to business contexts. Core content includes topics such as contract law, corporate governance, competition law, and financial regulations. Unlike law majors, these students require an applied understanding of how these laws influence business decisions.

The AI-enhanced teaching model addressed this need by restructuring the course to focus on:

- (1) **Real-World Scenarios:** Students analysed case studies involving common business disputes and regulatory compliance.

(2) Interactive Problem-Solving: AI tools facilitated group discussions on legal dilemmas, encouraging collaboration and critical thinking.

(3) Customized Learning Pathways: Adaptive systems ensured that students with varying levels of prior knowledge could engage meaningfully with the material.

By aligning the course content with the professional needs of economics and management students, the study successfully enhanced their interest and engagement in Economic Law while addressing key teaching challenges.

5 RESEARCH FINDINGS AND DISCUSSION

This section presents the key findings from the implementation of the AI-enhanced blended learning model, focusing on its impact on learning outcomes, personalized learning experiences, teacher-student interaction, and the challenges encountered during the process. These findings provide valuable insights into the effectiveness of this innovative teaching approach and its implications for improving Economic Law education.

5.1 Differences Before and After AI-Enhanced Teaching

The implementation of the AI-enhanced blended learning model resulted in significant improvements in student learning outcomes. Participation rates in online and offline activities increased markedly, with task completion rates exceeding 90% in most modules. Classroom discussions became more dynamic, as students demonstrated greater engagement with legal concepts and actively contributed to problem-solving exercises. This increased interaction fostered a deeper understanding of Economic Law and its practical applications, particularly in business contexts relevant to economics and management students.

5.2 Personalized Learning Experiences

AI technologies played a pivotal role in creating tailored learning experiences for students. Intelligent tutoring systems and adaptive platforms identified individual weaknesses and recommended targeted resources to address them. For example, a group of students struggling with corporate governance concepts received additional case-based exercises through the AI system, enabling them to focus on their specific learning gaps. As a result, these students achieved an average improvement of 20% in their assessment scores compared to their initial performance. This level of personalization not only improved comprehension but also increased students' confidence in tackling complex legal topics.

5.3 Enhanced Teacher-Student Interaction

The integration of real-time data and AI-generated insights significantly enhanced teacher-student interaction. AI systems provided instructors with detailed analytics on student progress, including task completion rates, participation levels, and areas of difficulty. This allowed teachers to dynamically adjust lesson plans, introduce targeted discussions, and provide timely interventions. For instance, during a module on competition law, instructors used AI insights to identify students who were struggling with key concepts and organized additional offline sessions to address their questions. This proactive approach strengthened the teacher-student relationship and created a more supportive learning environment.

5.4 Challenges and Solutions

While the AI-enhanced blended learning model demonstrated clear benefits, several challenges were encountered during its implementation:

(1) Technical Training for Teachers: Many instructors initially lacked familiarity with AI tools, which hindered their ability to fully utilize the technology. To address this, workshops and training sessions were conducted, focusing on the operation of AI platforms and data interpretation.

(2) Student Adaptation: Some students faced difficulties adapting to the AI-supported environment, particularly those less comfortable with technology. To mitigate this, onboarding sessions were organized to familiarize students with the platform's features and functionality.

(3) Resource Development: Creating high-quality digital resources, such as video lectures and interactive case studies, required significant time and effort. Collaboration with instructional designers and subject matter experts helped streamline this process.

(4) Over-Reliance on AI: A minority of students exhibited over-dependence on AI tools, potentially reducing their critical thinking skills. This was addressed by incorporating offline activities and encouraging students to engage in collaborative problem-solving without AI assistance.

Despite these challenges, the study demonstrated that a carefully designed AI-enhanced blended learning model can effectively address the traditional limitations of Economic Law education. By balancing technology with human-centred teaching strategies, this approach not only improved learning outcomes but also provided valuable insights for future applications in similar educational contexts.

6 CONCLUSIONS

The findings of this study demonstrate that the AI-enhanced blended learning model can significantly improve the teaching effectiveness of complex courses like Economic Law. By leveraging AI technologies, this model personalized learning experiences, increased student engagement, and strengthened teacher-student interaction, addressing many challenges inherent in traditional teaching methods. The integration of digital tools and adaptive learning strategies proved particularly effective for economics and management students, making legal education more relevant and accessible.

Looking forward, this innovative teaching approach has the potential to be extended to other disciplines, particularly those requiring the combination of theoretical knowledge and practical application. Additionally, its scalability and flexibility suggest that it could be implemented across the university to modernize education and improve learning outcomes in diverse academic fields. Future research should explore the long-term impact of such models and refine their application to ensure continued effectiveness in evolving educational environments.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

FUNDING

This study is supported by the project Research on Innovative Practices of the Blended Teaching Model for Economic Law Under the Goal-Problem-Oriented Approach, funded by the 2023 Guangdong Education Science Planning Program (Higher Education Special Project) (Ref. No. 2023GXJK394), and the 2024 Guangdong University of Petrochemical Technology Smart Course Project (AI+Course Initiative).

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