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## Analysis of problems and countermeasures in the reform of blended teaching in accounting practice courses

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### Abstract

Building a new blended learning model based on digital technology and promoting the deep integration of digital technology and education is the key to the reform of blended learning in accounting practice courses. This article studies the problems in the reform of blended teaching in practical accounting courses in universities, points out the causes of the problems, and benchmarks the construction standards of first-class blended courses. Suggestions are proposed from the aspects of blended teaching course goal design, classroom teaching organization and implementation, teaching methods and methods, effective connection of teaching content, integration of teaching resources, and improvement of teaching evaluation methods, in order to provide ideas for the reform of blended teaching in accounting practice courses and provide reference and inspiration for the digital teaching reform of accounting in universities.

**Keywords:** Digital economy, accounting practical courses, cost accounting, blended learning

### 1. Introduction

With the rapid development of the digital economy, new technologies and models such as big data, cloud computing, artificial intelligence, and sharing economy continue to emerge. The demand for accounting talents in enterprises has changed, and the demand for basic financial staff has decreased. The demand for accounting talents with composite and innovative abilities such as data analysis, information system application, and digital skills has increased. In 2019, the Ministry of Education issued the "Implementation Opinions on the Construction of First Class Undergraduate Courses", proposing to focus on building a batch of high-level courses, constructing new concepts for curriculum construction, and promoting curriculum reform and innovation. As an important part of curriculum reform, blended learning is a new teaching mode that connects offline theoretical lectures and online network resource learning. It has become the main mode of curriculum implementation in universities in the information age.

In this context, how universities can transform their development models, deepen education and teaching reforms, align with technological trends and market demands, enhance the practical and innovative abilities of accounting talents, utilize digital education resources and education service platforms, construct a new blended learning model based on digital technology, and promote the deep integration of digital technology and education and teaching are important issues that urgently need to be addressed in the current reform of accounting courses in universities.

This study aims to thoroughly explore the challenges and opportunities encountered during the implementation of blended teaching reforms in accounting practice courses (taking "Accounting Practice Courses" as an example) within the context of the digital economy in universities. The objectives of this research include:

- **Identification and Analysis of Problems:** Through empirical research, to identify and analyze the specific issues currently existing in the blended teaching reform of accounting practice courses, such as "Cost Accounting," in universities within the western Guangdong region.

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- **Investigation of Problem Causes:** Building upon the identified problems, to conduct an in-depth analysis of the underlying causes, considering the standards for constructing first-class blended courses as well as the evolving requirements for accounting talent capabilities driven by the development of the digital economy.
- **Proposal of Targeted Countermeasures:** Aligning with the requirements for first-class blended course construction, to propose actionable improvement suggestions and countermeasures. These will address the identified problems and their causes across multiple dimensions, including the design of blended teaching course objectives, the organization and implementation of classroom teaching, innovation in teaching methods, effective integration of teaching content, optimization of teaching resource integration, and improvement of teaching evaluation methods.

## 2 Literature Review

In recent years, the reform of blended learning has been ongoing, and many experts and scholars have explored teaching reform from the aspects of blended learning mode, teaching implementation, teaching methods, teaching evaluation, and the construction of blended first-class courses.

### 2.1 Exploration of Blended Teaching Mode

He Kekang and his colleagues were the first to conduct research on blended teaching theory in China. They believed that blended teaching is a new teaching model that integrates traditional classroom teaching with new media technology (Zhang, 2006) <sup>[14]</sup>. Luo *et al.* (2024) <sup>[6]</sup> indicate that the blended teaching model can enhance students' participation and learning outcomes, while also enriching the use of teaching resources. Ren *et al.* (2020) <sup>[8]</sup> proposed that in order to break the traditional teaching mode, it is necessary to use information technology to promote blended learning reform. Refactoring the concept, teaching objectives, and implementation path of blended learning reform, and establishing an innovative learning community. Luo (2019) <sup>[7]</sup> designed an eight stage blended learning process. Constructed an innovative blended learning model of "two-dimensional trinity" in universities.

### 2.2 Implementation of Blended Learning

Proposed to reconstruct teaching content, improve assessment mechanisms, and evaluate teaching in response to some problems exposed during the operation of blended learning courses, such as single teaching modes, single learning methods, and difficulty in supplementing offline grades with online grades. Zou *et al.* (2020) <sup>[15]</sup> studied the design and application effects of online, offline, and blended learning from three aspects, and pointed out that blended learning design plays a promoting role in cultivating students' comprehensive abilities.

### 2.3 Blended Learning Methods

Believes that in today's information age, information-based teaching models can stimulate students' interest in learning and make teaching methods more diversified. Jin *et al.* (2024) <sup>[5]</sup> pointing out that traditional teaching emphasizes "teaching" over "education", it is necessary to innovate and construct diversified blended learning models, and break

through the bottleneck of curriculum development with scientific teaching reform plans. Deng and Hu (2022) proposed an innovative path for blended learning in first-class undergraduate courses, emphasizing the need to improve teachers' professional competence, value courseware production and online resources, and use flipped classrooms to carry out blended learning.

### 2.4 Blended Learning Evaluation

Xiao and Chen (2022) <sup>[11]</sup> proposed a cyclic blended learning method based on innovative design of industry education integration, and constructed a multi-dimensional curriculum evaluation system. Jia and Gu (2024) <sup>[4]</sup> evaluated the process and results of students completing blended collaborative learning tasks based on a multi subject, multi-dimensional, and multi method effective mixed multiple evaluation method. Yang and Wang (2022) <sup>[12]</sup> proposed the use of a "3+3+4" model for blended learning evaluation: voting, online learning tests, quizzes, discussions, and other activities account for 30%. Offline interaction, social survey reports, reading notes, and practical training achievements account for 30%. The final closed book exam score accounts for 40%.

### 2.5 Construction of Blended First-Class Courses

Wang and Zhang (2021) <sup>[9]</sup> proposed using the output oriented approach as the theoretical framework that building a blended first-class curriculum requires efforts in five aspects: teaching objectives, teaching methods, teaching content, teacher team building, and teaching evaluation. Yang *et al.* (2021) <sup>[13]</sup> discussed the connotation and goal of the construction of hybrid first-class undergraduate courses, and proposed to combine the core elements of the curriculum with the hybrid teaching elements by virtue of the Internet gene, focusing on the richness and cutting-edge of the curriculum content and the innovation of the teaching model. Wang *et al.* (2023) <sup>[10]</sup> constructed an integrated teaching resource for ideological and political case studies based on the framework of first-class curriculum construction, adopting advanced hierarchical teaching to cultivate students' innovative practical abilities.

In summary, scholars have explored blended learning models, teaching implementation, teaching methods, teaching evaluation, and first-class curriculum construction from multiple perspectives, clarifying the necessity of constructing a new blended learning model in the digital economy era, integrating diverse teaching methods, and setting up a reasonable curriculum evaluation system. This provides a reference for scientifically evaluating the effectiveness of blended learning implementation and promotes the development of blended learning theory and practice. However, blended learning practices in universities still face some complex problems. If the setting of course teaching objectives does not reflect the concept of "gender equality", the blended teaching of online and offline lacks effective supervision and integration, and the teaching still relies mainly on traditional lectures based on the construction of first-class undergraduate courses in analytical chemistry teaching reform and practice, achieving the optimization and integration of educational resources has become a key focus of the blended teaching reform of accounting practice courses.

### 3 Materials and Methods

In order to gain a deeper understanding of the current situation of blended learning, the research team used a questionnaire survey method to conduct a survey of accounting majors in some universities in western Guangdong, from freshman to senior year, and distributed and collected 192 valid questionnaires. To gain an in-depth understanding of the current status, effectiveness, and existing problems of blended teaching reforms in accounting practice courses (taking “Cost Accounting” as an example) in universities within the western Guangdong region, this study primarily employed the questionnaire survey method, supplemented by an analysis of relevant policies and literature reviews.

#### 3.1 Research Subjects and Sampling

This study selected several universities in the western Guangdong region that offer accounting programs as the scope of research. Considering that the implementation of blended teaching reforms might vary across different academic years, the research team targeted students from the first to the fourth year of the accounting major as the research subjects. A convenience sampling method was adopted to distribute questionnaires to students from all grades within the accounting major. A total of 192 valid questionnaires were ultimately collected, covering students from different academic years. This sample holds a certain degree of representativeness and is capable of reflecting the general perceptions and experiences of accounting students in the region regarding blended teaching.

#### 3.2 Research Instrument

The research instrument was a self-designed questionnaire titled “Online-Offline Blended Teaching Survey.” The design of the questionnaire was primarily based on the following considerations:

- **Foundation in Literature Review:** It referenced the literature previously discussed concerning blended teaching, teaching implementation, and teaching evaluation, extracting key potential issues likely present in current blended teaching practices.
- **Question Type Design:** The questionnaire included two types of questions: single-choice and multiple-choice. Single-choice questions were used to understand students' basic learning status, preferences, and satisfaction levels regarding single-dimensional aspects. Multiple-choice questions were employed to explore the problems students encounter and influencing factors, which may involve multiple possibilities.

#### The main content of the questionnaire covered the following aspects

(1) Basic student information (academic year). (2) Students' current learning status and habits (e.g., previewing habits, time allocation for online learning). (3) Preferences for different teaching modes. (4) Perceptions of the drawbacks of traditional classroom teaching. (5) Experiences and evaluations of various aspects of online-offline blended teaching during different phases (pre-class, in-class, post-class), including resource access, teacher-student interaction, and learning efficiency. (6) Overall satisfaction with the blended teaching model and suggestions for improvement. (7) Attitudes towards specific teaching

methods (e.g., case teaching, flipped classroom, course competitions).

#### 3.3 Data Collection Process and Analysis Methods

The research team contacted accounting faculty members at the selected universities to obtain their support. Following this, questionnaires were distributed to students via online platforms (such as XueTong, Wen Juan Xing, etc.) or offline methods (classroom distribution). Students were clearly informed about the anonymity of the questionnaire and the research purpose, and were encouraged to fill it out truthfully. Questionnaires were collected within a specified timeframe. Upon collection, the questionnaires were screened, and invalid responses (incomplete or obviously perfunctory) were removed, resulting in 192 valid questionnaires. The data from these valid questionnaires were processed using descriptive statistical analysis methods. The analysis of this data aims to provide empirical evidence for subsequent chapters in identifying the existing problems and their underlying causes.

### 4 Results

The survey results show that with the continuous deepening of the blended first-class curriculum reform, more and more accounting teachers are starting to use high-quality online course resources, gradually promoting blended teaching reform, and teaching effectiveness has been improved to a certain extent (See Table 1). Students' satisfaction with teachers' blended teaching has reached 81.25%. However, there are also some problems in the reform of blended learning, such as teaching design not reflecting the requirements of blended courses, teaching methods still mainly relying on lecture based methods, and poor integration between online and offline blended learning in teaching implementation.

Taking the course of cost accounting as an example, the problems of blended learning mainly manifest in the following aspects.

**Table 1:** Satisfaction with online and offline teaching methods

| Option                  | Subtotal | Proportion |
|-------------------------|----------|------------|
| Satisfied               | 156      | 81.25%     |
| Generally satisfied     | 33       | 17.19%     |
| Not very satisfied      | 2        | 1.04%      |
| Completely satisfied    | 1        | 0.52%      |
| Filling in person times | 192      |            |

#### 4.1 The design of course objectives still focuses on achieving knowledge-based goals

According to Tables 2. 88.54% of students believe that classroom teaching objectives should reflect flexibility and diversity, and focus on heuristic teaching. 89.06% of students believe that in the era of digital economy, the combination of traditional classrooms and information-based classrooms is very necessary. 92.19% of students believe that the course competition mode helps to stimulate the cultivation of students' innovation and creative abilities. 90.63% of students believe that the flipped classroom teaching model can help stimulate the cultivation of students' innovation and creative abilities, and improve the effectiveness of classroom teaching. However, some universities currently emphasize in their goal design that students should master the basic concepts and principles of cost accounting, and can use cost accounting methods to

conduct cost accounting, prepare cost reports, etc. There is less emphasis on the design of "evaluation" and "creation" goals in goal design, and there is no clear goal setting on how to improve students' practical ability and comprehensive quality. Some teachers in universities still use traditional teaching methods mainly based on lectures

during the teaching process, and relatively new teaching methods such as "online teaching", "project-based teaching", "case teaching", and "flipped classroom" are rarely used. The courses lack cutting-edge features and cannot reflect the requirements of the digital economy era.

**Table 2:** Results of various instructional design surveys

| <b>I. The flexibility and diversity of classroom design and heuristic teaching</b> |                 |                   |              |
|------------------------------------------------------------------------------------|-----------------|-------------------|--------------|
| <b>Option</b>                                                                      | <b>Subtotal</b> | <b>Proportion</b> | <b>Total</b> |
| Very good                                                                          | 64              | 33.33%            | 88.54%       |
| Better                                                                             | 106             | 55.21%            |              |
| Average                                                                            | 20              | 10.42%            | 10.42%       |
| Not good enough                                                                    | 2               | 1.04%             | 1.04%        |
| Filling in person times                                                            | 192             |                   |              |
| <b>II. Combine traditional classrooms with information-based classrooms</b>        |                 |                   |              |
| Extremely match                                                                    | 72              | 37.5%             | 89.06%       |
| Fairly match                                                                       | 99              | 51.56%            |              |
| Generally match                                                                    | 20              | 10.42%            | 10.42%       |
| Not quite match                                                                    | 1               | 0.52%             | 0.52%        |
| Filling in person times                                                            | 192             |                   |              |
| <b>III. Course competition mode</b>                                                |                 |                   |              |
| Agree                                                                              | 177             | 92.19%            |              |
| Disagree                                                                           | 15              | 7.81%             |              |
| Effective filling in person times                                                  | 192             |                   |              |
| <b>IV. Flipped classroom teaching model</b>                                        |                 |                   |              |
| Agree                                                                              | 174             | 90.63%            |              |
| Disagree                                                                           | 18              | 9.38%             |              |
| Effective filling in person times                                                  | 192             |                   |              |

#### 4.2 Lack of effective supervision in online teaching and single form of offline teaching

Firstly, there is a lack of supervision in learning on the front line of class, and there is less communication and interaction between teachers and students. Many teachers assign online learning content before class, such as self-learning high-quality online video resources, assigning some thinking questions, and requiring students to complete these thinking questions through previewing. Some teachers also assign some case study questions, but in this stage, there is less interaction between teachers and students. According to

Table 3, 28.13% of students think that the teacher's feedback is not timely, 27.6% of students blindly watch videos to complete the teacher's learning tasks, and have less understanding of the video content. 26.56% of students think that there are too few useful resources on the course website, only to complete the homework assigned by the teacher, and the teacher cannot supervise the students' learning situation, resulting in the learning on the front line of class becoming a formality. 33.85% of students feedback that online learning is inefficient and the learning effect is not ideal.

**Table 3:** What are the main problems in blended learning process

| <b>Option</b>                                                                      | <b>Subtotal</b> | <b>Proportion</b> |
|------------------------------------------------------------------------------------|-----------------|-------------------|
| Teacher feedback is not timely                                                     | 54              | 28.13%            |
| There is a lot of video content, blindly watching videos consumes a lot of traffic | 53              | 27.6%             |
| There are too few useful resources on the course website                           | 51              | 26.56%            |
| Low learning efficiency                                                            | 65              | 33.85%            |
| Too many courses require blended learning                                          | 49              | 25.52%            |
| Extremely time-consuming                                                           | 26              | 13.54%            |
| It's uncomfortable to study on a computer                                          | 75              | 39.06%            |
| The course website is inconvenient to operate and I am not used to it              | 54              | 28.13%            |
| Obtaining teaching resources through the internet incurs high network costs        | 27              | 14.06%            |
| slow internet speed                                                                | 59              | 30.73%            |
| The logical system of video teaching is unclear                                    | 32              | 16.67%            |
| Insufficient teacher care and few Q&A sessions                                     | 27              | 14.06%            |
| Effective filling in person times                                                  | 192             |                   |

Secondly, offline teaching is mainly used in class, with less emphasis on practical experience and case studies. According to Table 4, 63.02% of students believe that students in traditional classrooms lack autonomy and cannot adjust according to their own learning situation. 41.15% of students think that offline Q&A time in traditional classrooms is limited and questions cannot be answered in a

timely manner. 22.92% of students believe that there are fewer opportunities to express their opinions in class and the content format is single. The course of Cost Accounting is designed for sophomore students, who lack understanding of the product production process and have difficulty forming a systematic understanding of the overall process of cost accounting. This course involves a large amount of data



information, multiple accounting methods, and a tedious accounting process. In terms of teaching methods, many colleges and universities mainly rely on lecture based methods, lacking simulation of cost accounting practices. Students have no sensory understanding and practical experience of the enterprise cost accounting process, and their practical and innovative abilities are poor. The tedious accounting process and tedious data calculation make students lack interest in learning and have a weak sense of identification with the course.

**Table 4:** What drawbacks have affected your learning in traditional classrooms

| Option                                                                       | Subtotal | Proportion |
|------------------------------------------------------------------------------|----------|------------|
| Lack of autonomy, unable to adjust according to one's own learning situation | 121      | 63.02%     |
| Lack of teacher-student interaction and easy distraction during class        | 74       | 38.54%     |
| There are few opportunities to express one's own opinions                    | 44       | 22.92%     |
| Lack of abundant learning resources, limited offline Q&A time                | 79       | 41.15%     |
| Effective filling in person times                                            | 192      |            |

Thirdly, there is a lack of group discussions and practical expansion training after class, resulting in poor students' practical abilities. After class, teachers usually assign practice questions to consolidate the knowledge learned. However, the practice forms are mainly focused on completing cost accounting single chapter exercises, and there are few case studies completed in groups. Students can master various accounting methods, but for a specific enterprise, how to choose the appropriate cost accounting method according to the characteristics of the enterprise's production and management requirements, students generally lack intuitive understanding. Lack of case studies and practical training has led to a general lack of innovative thinking and operational skills in business practice among students.

#### 4.3 The design of the curriculum evaluation system still relies mainly on traditional evaluation methods

At present, the evaluation method of blended courses mainly relies on summative assessments, manifested in the form of final exams. The exam score accounts for the vast majority of the total evaluation score, with process assessment as a supplement, mainly manifested in attendance, regular tests, exercises, homework, etc. There is less assessment of students' practical ability and comprehensive quality in blended learning grading, and more emphasis is placed on attendance, homework, classroom exercises, final exams, etc. Still using the traditional assessment model. This kind of evaluation, which is led by teachers and passively accepted by students, neglects the cultivation of students' personality, practical ability, and innovation ability. It focuses too much on the exam results of written knowledge, and the evaluation of students' learning attitude, learning ability, learning process, and learning results is not comprehensive enough. Students passively accept evaluations, leading to a test taking mentality, neglecting the cultivation of interests and the improvement of comprehensive quality, and cannot reflect the learning effect of students. The survey shows that only 29.69% of students are very satisfied with this assessment method. The,

disconnect between teaching and learning limits the development of teachers and students.

## 5 Discussion

### 5.1 The design of teaching objectives does not reflect the requirement of the "Gender Parity" Goal

The course of Cost Accounting not only requires students to master the basic methods, principles, and procedures of cost accounting, but also to have a deep understanding of the complex knowledge scenarios of cost accounting and the changing factors caused by business differences in practical applications. At the same time, it is necessary to enable students to understand the requirements of modern cost management on the basis of mastering traditional accounting knowledge. The current goal design of Cost Accounting lacks difficulty levels and is designed uniformly for all students, resulting in a lack of challenge and reduced interest in learning. The survey shows that only 31.77% of students are very satisfied with the effectiveness of blended learning. In addition, the teaching content design of the course "Cost Accounting" does not reflect the ideological and political goals well, and there is a lack of design for "case teaching", "classroom group discussions", "practical training", "simulation training" and other contents that are helpful for integrating ideological and political education into the course. Some teachers also do not consciously integrate the ideological and political content of the course into various aspects of teaching.

### 5.2 The teaching content, methods and implementation process have not kept pace with the times and changed

In the era of digital economy, the demand for talents in the market has undergone significant changes, and universities should also keep pace with the times in terms of course teaching content, methods, and implementation processes. However, at present, many universities fail to pay attention to the integration of theory and practice in the design of cost accounting courses, and there is a lack of effective supervision and connection between online and offline teaching. The teaching methods are still limited to traditional lecture based teaching, and have not effectively integrated various teaching methods such as case teaching, project-based teaching, problem oriented learning, situational teaching, gamified learning, and group cooperative learning to stimulate students' interest in learning and improve their participation. During the implementation of teaching, teachers failed to adjust their teaching methods in a timely manner according to market demand, and were unable to develop differentiated teaching strategies based on different students' learning abilities and understanding of knowledge. There was limited real-time interaction between teachers and students on online platforms, and there was a lack of effective supervision over platform learning.

### 5.3 There is no emphasis on vocational and innovative abilities in the design of course evaluation

The course assessment and evaluation methods include two parts: process assessment and final assessment. Process assessment can be composed of assignments, sign ins, group tasks, chapter learning frequency, Chinese university MOOC learning, classroom case discussions, reading, mid-term exams, etc., The final assessment is an offline exam. At present, the proportion of mid-term and final exam scores in

the curriculum evaluation system design generally exceeds 50%, which is a relatively large proportion. The process assessment mainly focuses on attendance, homework, and classroom exercises. The attendance score accounts for a large proportion, and the survey shows that only 39.58% of students are very satisfied with attendance (according to Table 5-I). Online assignments include video learning and other assignments assigned by teachers, and online assessments lack effective supervision. 25.52% of students believe that too many courses use blended learning,

according to table 6. 56.77% of students think that online learning is boring and affects their interest in learning (according to Table 5-II), and 25% of students watch videos to complete their assignments (according to Table 5-III). Classroom case discussions and group task scores account for a relatively small proportion. In mid-term and final exams, knowledge and ability are more emphasized in the assessment, while vocational and innovative abilities account for a relatively small proportion of the evaluation scores.

**Table 5:** Survey results on course evaluation design

| <b>I. Satisfaction level with attendance management</b>                          |                 |                   |
|----------------------------------------------------------------------------------|-----------------|-------------------|
| <b>Option</b>                                                                    | <b>Subtotal</b> | <b>Proportion</b> |
| Very satisfied                                                                   | 76              | 39.58%            |
| Satisfied                                                                        | 97              | 50.52%            |
| Generally                                                                        | 14              | 7.29%             |
| Relatively dissatisfied                                                          | 4               | 2.08%             |
| Very dissatisfied                                                                | 1               | 0.52%             |
| Effective filling in person times                                                | 192             |                   |
| <b>II. The main reasons for lack of concentration in online learning process</b> |                 |                   |
| Low online learning ability and operational level                                | 73              | 38.02%            |
| Relatively dull and boring, affecting learning interest                          | 109             | 56.77%            |
| Lack of interactivity and insufficient self-control ability                      | 114             | 59.38%            |
| The course content is a bit difficult and I don't want to learn anything else    | 44              | 22.92%            |
| Effective filling in person times                                                | 192             |                   |
| <b>III. Check the status of the course video</b>                                 |                 |                   |
| A video will be watched multiple times for review and revision                   | 43              | 22.4%             |
| Watch the video at 1x speed like an offline course                               | 68              | 35.42%            |
| 1.5 or 2x speed for early viewing and early ending                               | 33              | 17.19%            |
| After opening the video, simply hang it aside                                    | 48              | 25%               |
| Effective filling in person times                                                | 192             |                   |

## 6 Conclusion and Suggestion

### 6.1 In the design of teaching objectives, emphasis should be placed on ability objectives and literacy objectives

The design of ability goals should reflect the improvement and expansion of abilities. Including comprehensive application ability, analysis and decision-making ability, and innovation ability. Students can design cost accounting programs based on the actual production characteristics of enterprises, choose cost accounting methods suitable for enterprises, and apply theory to practice. It can provide decision support for enterprises based on cost data. Can participate in cost planning, control, assessment and other management activities of the enterprise to enhance management decision-making level. Students constantly explore new methods, new ideas, and new strategies in their learning and practice, and their innovation ability, analytical ability, and comprehensive application ability are improved. The design of literacy goals should focus on strengthening and elevating ideological and political education. Explore the ideological and political elements of the course, and organically combine ideological and political cases with the knowledge points of each chapter of the course. Firstly, when formulating the teaching syllabus, integrate ideological and political elements organically into the curriculum teaching objectives and content, ensuring the organic integration of ideological and political education with professional education; Secondly, by utilizing AI technology, the course ideological and political case library can be built into a course ideological and political knowledge graph, enabling the sharing of case resources and facilitating teachers and students to access and use them; Again, in combination with the requirements of the digital

economy era market for professional competence in employment positions, through case teaching methods, students' professional ethics and social responsibility are strengthened. Optimize the course content of Cost Accounting around professional qualities such as objectivity, fairness, honesty, and trustworthiness, so that students can strengthen their professional competence while mastering professional knowledge.

### 6.2 Adopting the smart classroom teaching organizational model

Driven by OBE tasks and centered on students, this innovative classroom adopts a blended learning model of "national level MOOCs + offline classroom teaching + flipped classroom + online Chaoxing Learning Platform and other auxiliary teaching platforms + three-dimensional textbooks" to complement each other. It fully utilizes online teaching resources, guides students to learn independently through blended learning, and integrates the idea of "cultivating morality and talent" into professional education (See Figure 1).

Pay attention to problem oriented and cooperative learning before class. Before class, the teacher assigns cases and questions, divides students into groups, and encourages them to start from the problem and analyze and solve it through independent research and collaborative learning. Guide students to actively think, explore, learn from each other, exchange ideas, collaborate to solve problems, and cultivate students' collaborative abilities and team spirit. Emphasis is placed on multimedia teaching, flipped classroom, and experimental teaching methods during class. Traditional classroom teaching will be conducted online,

while offline classes will mainly focus on the difficult and key issues of online learning, using teacher-student interaction and student interaction. Add experimental operations to the course, allowing students to understand knowledge points and improve their understanding of business through hands-on practice. Provide feedback and expand knowledge after class. Collect students' learning data in a timely manner through online testing, homework, topic discussions, and other means, communicate with students in a timely manner, and provide teaching feedback and answer questions. Helping students understand their learning

situation in a timely manner, adjusting their learning strategies, and also assisting teachers in providing differentiated guidance based on students' learning situations.

Innovative classrooms require teachers to continuously improve their teaching abilities and levels, encourage teachers to independently develop digital teaching resources, regularly organize online seminars, share teaching experience, share high-quality teaching resources, constantly summarize excellent teaching experience and achievements, and enhance the overall teaching level.

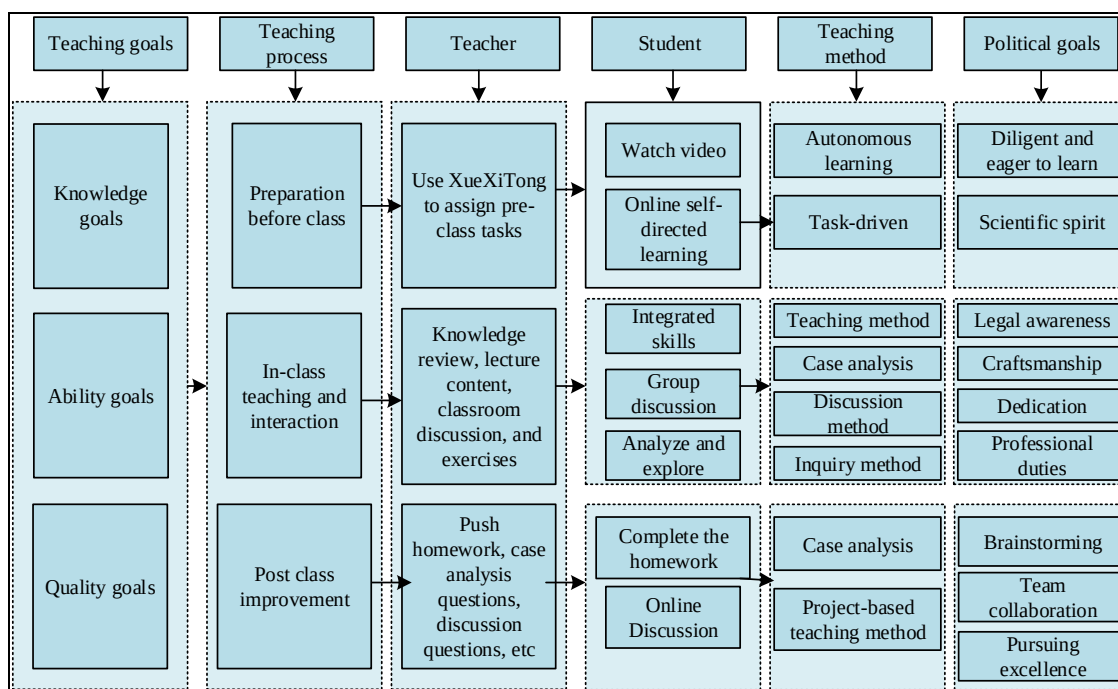


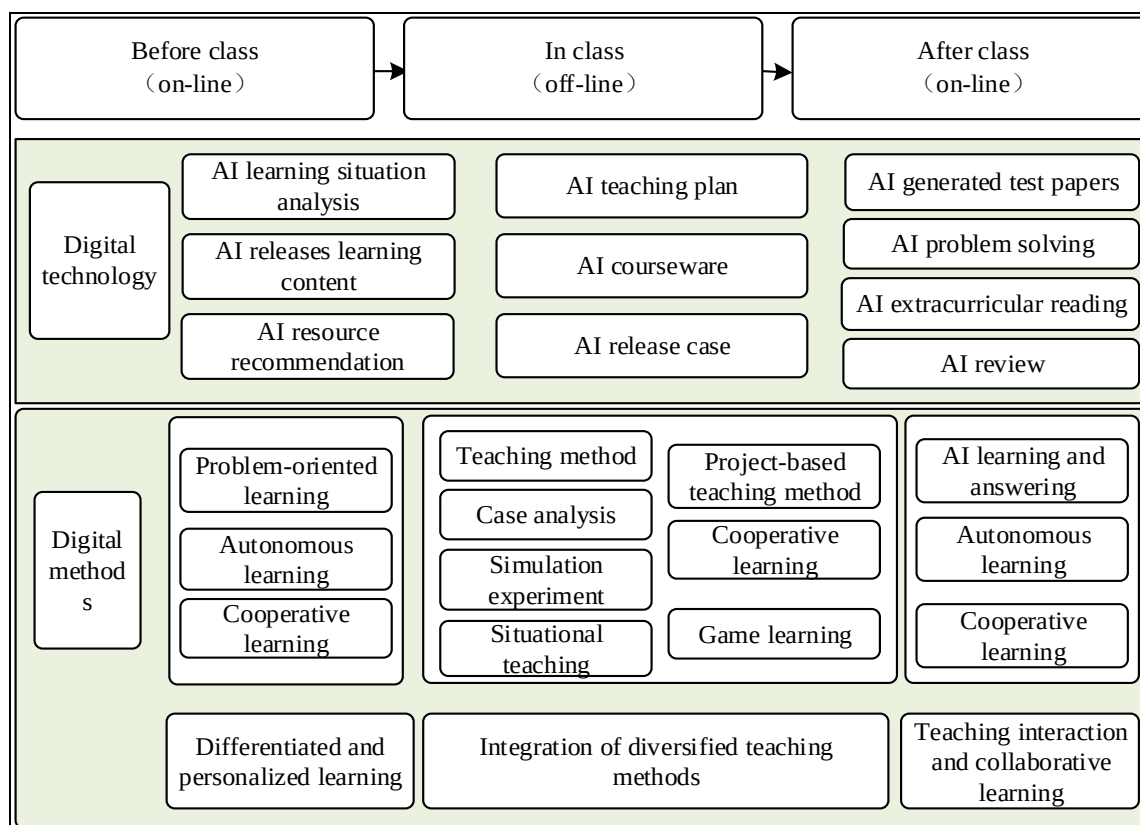
Fig 1: Implementation chart of smart classroom teaching organization

### 6.3 Reform of blended learning methods using AI technology

One is to focus on the integration and diversity of teaching methods and approaches. The blended teaching method for accounting practice courses can no longer be limited to traditional lecture based teaching, but should incorporate various teaching methods such as case teaching, project-based teaching, problem-based learning, situational teaching, gamified learning, and group cooperative learning to stimulate students' interest in learning and improve their participation. By using VR and AR technology, students can immerse themselves in learning content and enhance their learning experience and immersion. It is also possible to simulate business scenarios of enterprises, allowing students to learn in specific situations, such as directly designing business processes such as procurement and sales, allowing students to play different roles involved in the business, truly experience business processes and job responsibilities, and increase the fun and practicality of learning. Game elements can also be designed to allow students to learn in games, enhancing their motivation and participation in learning. Students' learning data can be collected and analyzed using data platforms such as Study Pass to provide data support for personalized teaching. AI technology can also be used to assist teaching, such as AI online homework grading, AI recommended learning resources, AI published cases, AI learning analysis, etc.

The second is to adopt differentiated teaching and personalized learning paths. Through the data analysis capabilities of the AI online assisted teaching platform, teachers can understand each student's learning progress, difficulties, problems, and interests. Differentiated teaching strategies can be developed based on different students' learning abilities and understanding of knowledge. For example, for students with weaker knowledge mastery, extracurricular tutoring and Q&A can be increased. For students with stronger learning abilities, they can be encouraged to engage in more in-depth training in scientific research knowledge and practical skills. Personalized learning paths meet the different needs of students and improve learning outcomes.

The third is to enhance teaching interaction and collaborative learning. Real time interaction between teachers and students is achieved through AI intelligent agents. Students can ask questions to teachers at any time through AI assistants, which can provide timely answers and feedback. Teachers can also adjust teaching progress and strategies based on students' questions. In addition, students can also collaborate on learning through platforms such as Study Pass to complete group tasks, such as case studies, project planning, market research, etc. Through online sharing of learning outcomes and experiences, group discussions, and teacher feedback, we aim to cultivate students' teamwork and communication skills. (See Figure 2).



**Fig 2:** AI technology empowers the reform of teaching methods and approaches

#### 6.4 Strengthen the Effective Connection and Supervision Between Online and Offline Teaching Implementation

One is to achieve the connection between online and offline teaching materials in the course. Blended learning has strict requirements for the teaching materials of the course. Firstly, the teaching calendar needs to allocate teaching hours reasonably according to the requirements of online and offline courses. Online and offline teaching should achieve a reasonable connection in terms of time and content; The lesson plan needs to be written according to the requirements of blended learning, which includes both online and offline content arrangements for each chapter, as well as requirements for blended learning online and offline; The design of teaching courseware should focus on reflecting the precise lectures, practical training, and case studies of online learning knowledge; Course assessment is divided into process assessment and summative assessment. Blended learning places more emphasis on process assessment and online learning data; The curriculum outline should also be developed according to blended learning, with teaching resources not only including textbooks and reference books, but also online learning resources. Pre class learning includes video guidance, knowledge expansion, case analysis, and learning effectiveness testing. National level high-quality online first-class course video resources can be selected for theoretical learning. Provide students with a preliminary understanding of the course content. Teachers provide knowledge expansion training materials and enterprise cases, and students deepen their understanding of the cost accounting process through online discussions. Teachers can also test the learning content to check students' learning effectiveness.

The second is to strengthen the connection between online and offline teaching and the supervision of the teaching process. Teachers can use online teaching platforms such as

iCourse, Xuetong, and Rain Classroom to create learning spaces for courses. They can set up learning resources for courses in the space, including course outlines, course videos, chapter learning materials, key and difficult points, lesson plans, practice questions, knowledge expansion materials, enterprise cases, homework questions, etc. In the space, they can post theme discussions to encourage students to share their learning experiences on certain knowledge points. Students can also ask questions in the Q&A area. Teachers can answer students' questions in a timely manner according to their learning situation and needs, and provide personalized learning guidance and suggestions for students. In addition, teachers can also showcase course content through videos, teaching animations, and other forms to help students understand theoretical knowledge. Regularly organize online activities, such as theme discussions, online case analysis, etc., to enrich students' learning experience, strengthen communication and cooperation between teachers and students, and between students.

#### 6.5 Integrating diverse teaching resources to form a resource network

One is to achieve diversification of teaching resources. Make full use of the rich teaching resources provided by online teaching platforms, such as Chinese university MOOC resources including lecture notes, courseware, videos, exercises, etc. These resources come in various forms and can meet the diverse learning needs of students. Teachers can also use platforms such as Xuetong or Rain Classroom to establish their own SPOC assisted teaching platform. They can put e-books, lecture notes, courseware, question banks, enterprise cases, experimental training business, teaching videos, scientific research and expansion knowledge, etc. on the SPOC assisted teaching platform,



digitizing traditional teaching resources and facilitating students' independent learning.

The second is to integrate teaching resources and improve the convenience of resource acquisition. Firstly, comprehensively review the existing teaching resources such as MOOC resources, SPOC resources, textbooks, courseware, classroom recordings, lesson plans, question banks, case banks, etc. Blended learning can integrate teaching resources from different times and spaces, achieve the sharing of teaching resources, and schools can also introduce high-quality teaching resources from outside the school, such as inviting expert lectures, conducting online course training, etc., to integrate with on campus resources and form a more comprehensive teaching resource system. Students can access learning resources anytime through online teaching platforms, no longer limited by classroom time and location, which improves the convenience of learning.

The third is to construct a curriculum knowledge graph and form a resource network. Applying the course knowledge graph to teaching can help teachers organize the course knowledge framework, easily obtain course information, and form course teaching ideas. Students can directly click on knowledge nodes in the graph to access relevant resources, learn and explore independently, and improve knowledge utilization and learning effectiveness.

6.6 Reforming the evaluation system for blended curriculum teaching

The mixed course evaluation method adopts a diversified evaluation approach. The weight of process assessment generally accounts for about 50%-60%, and the weight of

final evaluation accounts for about 40%-50%. The process assessment can generate evaluation results independently by the Chinese university MOOC platform and the Learning Platform. The evaluation form can be composed of assignments, signins, group tasks, number of chapter studies, Chinese university MOOC learning, classroom case discussions, reading, mid-term exams, etc. Among them, case discussions, group tasks, mid-term exams, and final assessments should highlight the evaluation of professional and innovative abilities, the final assessment is an offline exam. The process assessment of the course "Cost Accounting" consists of six parts, including assignments accounting for 25%, attendance accounting for 5%, group tasks accounting for 25%, chapter learning (reading) frequency accounting for 15%, Chinese university MOOC learning accounting for 10%, case discussions accounting for 10%, and mid-term exams accounting for 10%; The final assessment is an offline exam, accounting for 40%. The process based assessment mechanism can dynamically track students' learning situation, grasp their learning progress, help teachers continuously improve classroom teaching methods, and have a positive impact on improving teaching quality (See Table 6.)

In short, with the continuous development of the digital economy, the reform of blended teaching in accounting practice courses will continue to innovate. In the future, we need to further optimize the teaching staff, innovate teaching methods, continuously improve teaching resources according to first-class curriculum standards, summarize teaching experience, enrich teaching achievements, improve teaching quality and level, and cultivate more high-quality and innovative accounting talents for society.

Table 6: Assessment and evaluation system for the mixed course of cost accounting

| Constitute         | Evaluation type                                           | Object                                | Target assessment                | Weight | Total |
|--------------------|-----------------------------------------------------------|---------------------------------------|----------------------------------|--------|-------|
| Process assessment | Self-generated evaluations on platforms such as Xuexitong | School assignment                     | Ability and literacy             | 25%    | 60%   |
|                    |                                                           | Sign in                               | Literacy                         | 5%     |       |
|                    |                                                           | Group tasks                           | Ability and literacy             | 25%    |       |
|                    |                                                           | Learning frequency                    | Knowledge objectives             | 15%    |       |
|                    |                                                           | Case discussion                       | Ability and literacy             | 10%    |       |
|                    |                                                           | Midterm examination                   | Knowledge, ability, and literacy | 10%    |       |
|                    | MOOCs                                                     | Video learning and chapter assessment | Knowledge objectives             | 10%    |       |
| Final-examination  | Final exam                                                | Closed-book exam                      | Knowledge, ability, and literacy | 40%    | 40%   |
| Total              |                                                           |                                       |                                  |        | 100%  |

6.7 Research Limitations

This study primarily employed the questionnaire survey method, which may entail the following limitations. Firstly, although the sample size reached 192, it was predominantly concentrated within a single university in the western part of Guangdong province. This geographical and institutional limitation may restrict the generalizability of the findings to the entire country or a broader regional context. Secondly, the questionnaire relied heavily on students' subjective perceptions and recollections, which could be susceptible to memory bias or social desirability effects. Thirdly, the research perspective was mainly centered on students' viewpoints, lacking sufficient integration of perspectives from instructors and educational administrators. Consequently, the understanding of the issues identified might not be entirely comprehensive. Future research could consider expanding the sample scope, adopting more in-depth methods such as interviews and classroom

observations, and incorporating a multi-stakeholder perspective for a more integrated analysis.

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