

# Discussion on the three hybrid teaching mode of “SPOC + Classroom + virtual simulation experiment” in undergraduate Auditing Course

## -- take the accounting major of Yunnan University as an example

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**Abstract:** under the background of using information technology to realize education modernization, Promoting the hybrid teaching of audit course for undergraduate accounting major in Colleges and universities is the inevitable requirement to adapt to the teaching reform of digital intelligence talent cultivation. Taking the accounting major of Yunnan University as an example, this paper summarizes the advantages of online and offline hybrid teaching through questionnaire survey, and points out that the current online and offline hybrid teaching is still limited by the lack of audit supervision scenes for students to learn how to implement audit supervision procedures, which makes it difficult for students to understand and master the practical operation related to the substantive procedures of audit supervision. In view of this audit teaching problem, the “three hybrid” teaching mode is constructed, including “pre class design: SPOC online course resource utilization, modification, update and supplement”, “in class design: virtual simulation experiment teaching integrated into offline classroom teaching” and “after class design: course performance evaluation, teaching effect evaluation and teaching research”.

**Key words:** accounting; Blended teaching; Virtual simulation experiment; Three hybrid teaching mode

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### 1. Introduction

The “education informatization 2.0 action plan” and other documents require to promote the development of “Internet + education”[1]. The requirements of using modern information technology to promote various forms of online teaching activities and encouraging teachers to use information technology to innovate teaching mode have promoted the upsurge of exploring Hybrid Teaching Reform in Colleges and universities[2]. Audit course is the core compulsory course of accounting major in Colleges and universities in China, and the audit substantive procedure is the key teaching content of the course. At present, colleges and universities actively comply with the trend of education informatization and introduce MOOC and other online teaching resources in the teaching of Audit Course MOOC’s small private online course (hereinafter referred to as SPOC) and other resources are used for online and offline hybrid teaching[3]. However, for key teaching contents such as audit supervision, even if the Online and offline hybrid teaching is also difficult to implement audit and inventory supervision at the actual audit and inventory site, Students are unable to understand how to implement the supervision procedure at the audit site, lack of experience and poor teaching effect[4], which seriously affects the teaching quality.

Virtual simulation experiment relies on multimedia, human-computer interaction, network communication and other technologies to build a simulated virtual reality environment, which can enhance students’ perceptual cognition of audit procedures, and give full play to the unique advantages of virtual simulation experiment teaching in cultivating students’ practical and innovative ability[6]. At present, the research on virtual simulation teaching in China is mainly focused on the science and engineering majors, and the teaching of economics and management majors is relatively less. It mainly focuses on the necessity of applying virtual simulation technology, the comparison of virtual simulation experiment and traditional experiment, the construction of virtual simulation teaching center or platform for economics and management majors, and the technical means and organizational design of virtual simulation teaching, However, less attention is paid to the application of virtual simulation technology in the teaching of audit courses of accounting or auditing and other economic and management subdivisions. This paper uses the method of questionnaire survey, and takes the students of four grades of accounting major in Yunnan University as the survey object to analyze the problems existing in the mixed teaching of audit courses, This paper discusses the three hybrid teaching mode of “SPOC + Classroom + virtual simulation” which integrates the virtual simulation experiment into the existing hybrid teaching of audit course. It is important to improve the traditional hybrid teaching mode and improve the existing problems such as students’ inability to understand how to implement the audit procedure in the real audit site, lack of real experience, and poor teaching effect, And improving the teaching quality of audit course has important practical significance.

### 2. Limitations of online and offline Hybrid Teaching of undergraduate Audit Course

#### 2.1 lack of audit supervision scenarios for students to learn how to implement Audit supervision procedures

The substantive procedure of audit supervision is an audit procedure that must be implemented in audit practice, and it is also Audit is an important teaching content of the course, but due to space constraints, students are generally not allowed to enter the auditee’s warehouse (monitoring scene), so it is difficult for students to go to the auditee’s site to learn how to implement audit monitoring during the first semester. Whether it is online teaching platforms such as MOOC or offline classroom teaching, teachers can only describe it orally to

studentsThe scene of audit supervision and how to implement audit supervision, students can not experience the audit supervision procedures on site, resulting in poor teaching effect[9]. Therefore, the online and offline hybrid teaching can not solve the audit teaching problem that there is no audit supervision scene for students to learn how to implement the audit supervision procedure.

2.2 it is difficult for students to understand and master auditThe practical operation of the substantive procedure of supervision and examination

The classroom teaching of “emphasizing theory and ignoring practice” in the course of auditing is not conducive toStudents understand relevant knowledge and improve their application ability. The course resources in MOOC and other online teaching platforms are also mainly the lectures of the lecturer on relevant knowledge points, which can not make students truly experience the reality of audit supervision, and it is also difficult to understand and master how to implement the substantive procedures of audit supervision, which is not suitable for the characteristics of strong practicality of audit courses[10]. Students still need a long time of study and training to work in audit institutions after graduation, which increases the operation cost of audit institutions, and makes the audit practice ability of accounting students cultivated in Colleges and universities out of line with the requirements of society for audit interdisciplinary talents with “both audit theoretical basis and audit practice ability”.[11]

### **3. Integrated with virtual simulation experimentUndergraduate Audit Course“Advantages of “three hybrid” Teaching**

In view of the strong practicality of the audit course, the teachers in the class orallyIt is difficult for students to master how to implement the audit supervision procedure, which is not conducive to the cultivation of students’ audit practice ability. The integration of accounting major of Yunnan University into the teaching of Audit CourseVirtual simulation experiment, which takes virtual simulation experiment teaching as the supplement and extension of classroom teaching, uses computer and Internet technology to set scenarios, tasks and roles, and reproduces the real audit supervision scenes and processes through virtual simulation technology, so as to enhance students’ perceptual cognition of the audit supervision process and content, in order to achieve good teaching effect.

#### 3.1 design, distribution and recovery of questionnaires

In this paper, the students of grade 2018 and 2019 in accounting major of Yunnan University, who have studied the course of auditing in University, the teachers use hybrid teaching, and use the virtual simulation software of auditing supervision to conduct the experimental operation of auditing supervision in the teaching, are directed to send out questionnaires. Seven questions are designed in the questionnaire, and the Richter five scale is used to measure the score, Finally, 95 valid samples were collected from this part of the questionnaire.

3.2 Audit CourseAnalysis of the statistical results of questionnaire survey on the advantages of “three hybrid” teaching integrated with virtual simulation experiment

According to the questionnaire survey statistics, 90.53% of the students who have studied the course of auditing in University, and the teachers use hybrid teaching, and use the virtual simulation software of audit supervision in the teaching of audit supervision experiment, think it can help them feel the reality of audit supervision scene, 89.47% thought it could help them experience the detailed operation process of the real audit supervision procedures, 85.27% thought it could help them experience and discover the risks of audit supervision, 88.42% thought it could get an immersive learning experience and exercise their audit practice operation ability, It shows that the “three hybrid” teaching of the existing audit course integrated with the virtual simulation experiment can help students feel the real audit supervision scene, experience the detailed operation process of the real audit supervision substantive procedures, and help students experience and discover the risks of audit supervision; Enable students to get an immersive learning experience and exercise their ability to operate audit practice.

#### 3.3 conclusion of “three hybrid” teaching advantages of undergraduate audit course integrated with virtual simulation experiment

According to the analysis of the above questionnaire survey results, it can be seen that the existingThe “three hybrid” teaching of “auditing” course integrated with virtual simulation experiment can help students feel the real scene of audit supervision, experience the detailed operation process of the real substantive procedures of audit supervision, and help students experience and discover the risks of audit supervision; Enable students to get an immersive learning experience and exercise their ability to operate audit practice.

### **4. Undergraduate audit course integrated with virtual simulation experimentConstruction of “SPOC + Classroom + virtual simulation” Three Hybrid Teaching Mode**

#### 4.1 pre class design: SPOC online course resource utilization, modification, update and supplement

The development of new media enables students to use fragmented learning time to complete learning tasks remotely. The hybrid teaching under the SPOC mode of MOOC platform plays a positive role in improving students’ learning interest and mastering course knowledge[13]. In the pre class stage, teachers introduce MOOC courses of Chinese Universities Based on their colleges and universities, synchronize the original online excellent MOOC courses of Chinese universities to the school cloud of their colleges and universities through asynchronous SPOC, and form the online MOOC of their colleges and universities. After teachers copy the original online excellent MOOC courses to their colleges and universities, Teachers can modify and update the course content on the basis of the original course, and release it to the students of the school for learning. You can also push the preview contents and pre class learning tasks of the learning objectives, key points and difficulties of each teaching chapter, upload supplementary learning resources, supplementary courseware and handouts, and publish them to the students of our school for learning. The teacher is the manager of the teaching content of the course. Generally, the teacher and the assistant teacher assigned according to the course are authorized to jointly manage the teaching content of

the course. The assistant teacher assists the teacher in completing the above push, upload and release work. In the pre class design stage, students' learning methods are mainly independent learning or group discussion, so as to preview the contents of each chapter in advance before class and improve students' autonomous learning ability and effect.

In addition, students can MOOC's SPOC platform timely puts forward questions or suggestions to teachers about the puzzles and difficulties encountered in their autonomous learning, The teacher or assistant teacher can respond to students' questions, or initiate questions on the platform to fully interact with teachers and students. The teacher can adjust the teaching plan or teaching progress according to the students' questions or suggestions.

#### 4.2 in class design: integrating virtual simulation experiment teaching into offline classroom teaching

As the core course of accounting major, audit course is an important cornerstone for students majoring in finance and accounting to build the basic knowledge framework of their major. Audit substantive procedures are the key teaching content of the course. However, the traditional online and offline Hybrid Teaching of the course still fails to enable students to understand and perceive how to implement audit substantive procedures such as audit. Therefore, we can build audit scenarios by using 3D virtual simulation technology, introduce real audit scenarios into teaching through interactive simulation, and integrate them into offline classroom teaching. The teaching link of virtual simulation experiment can help students understand the obscure audit concept, understand how to implement the audit procedure in the audit practice, and cultivate their practical ability[14]. In the course design stage, the specific teaching procedures of integrating the virtual simulation experiment teaching of audit supervision into offline classroom teaching are as follows:

According to the students' autonomous learning and preview in the pre class stage, analyze and summarize the problems that may be faced in the teaching of subsequent courses, and adjust the original teaching scheme;

Import the student information template of the teaching class that has been filled in before the teaching of audit course reaches the relevant chapters of audit procedures. Virtual simulation experiment teaching system, the establishment of virtual simulation experiment teaching class;

Ask students to Autonomous Learning on SPOC course platform of MOOC. The content of the substantive procedures of audit supervision and audit shall be supplemented by the teachers in the off-line classroom. After the important knowledge points of the substantive procedures of audit supervision, the virtual simulation experiment operation manual of the substantive procedures of audit supervision will be given to students for reading, and how to carry out it will be explained to students in class. The operation of virtual simulation experiment of the substantive procedure of audit supervision and inspection and the matters needing attention in the experiment;

Arrange students to The virtual simulation experiment of the substantive procedures of audit and supervision, the teaching and assistant teachers provide experimental guidance on the spot, and timely answer and solve the problems encountered by students in the process of experiment;

After the students' experiment, the teacher organizes classroom discussion, and through listening to the students' summary, experience and feedback on the experiment, teaching and learning benefit each other, answering questions and solving doubts, fully stimulating the students' enthusiasm and initiative, and constantly consolidating the knowledge learned.

#### 4.3 after class design: course performance evaluation, teaching effect evaluation and teaching research

After class teachers assign homework exercises and chapter tests to students through MOOC's SPOC course platform, and upload cases, documents and other learning materials as teaching supplements and extensions, so as to broaden students' learning horizons and deepen students' understanding and mastery of relevant knowledge[15]. At the same time, a question answering and discussion area and an anonymous teaching evaluation and feedback area are opened on the SPOC course platform for students to discuss doubts in the course and make evaluation and feedback on the teaching. Teachers can adjust the teaching progress and plan according to the problems and suggestions put forward by students on the teaching, continuously optimize online teaching resources and improve the teaching design of offline classroom.

The course performance evaluation is based on the diversified evaluation principle of "focusing on the process assessment, not only the examination results". The mid-term and final scores of the total score generally account for 50%. Other performance evaluation items and score proportions are set by the teachers according to the teaching situation, and the scores of the virtual simulation experiment test of the audit and supervision procedures generally account for 10%.

Finally, the virtual simulation experiment of the substantive procedures of audit supervision is distributed to students, which is integrated into the teaching questionnaire of the course of auditing, accumulates teaching research data, writes relevant teaching research papers, and realizes that teaching practice and teaching research complement each other.

## References:

- [1] Kekang He How to implement the ambitious goal of "education informatization 2.0 action plan" [j]Open education research, 2018,24 (05): 11-22
- [2] Lin Chen, Lin Xu Research on the development strategy of education informatization 2.0 in the new era [j]China audio visual education, 2021 (01): 96-101+127
- [3] Fan Wang, Yuanting Tao Research on online and offline hybrid teaching method of audit course [j]Business accounting, 2020 (13): 121-123+61
- [4] Sicheng Shang, Xuelan Li, Wen Zhou Analysis of the current situation of the development of audit major in Colleges and universities in China [j]Monthly journal of Finance and accounting, 2013 (02): 113-117
- [5] Hanyou Xu, Guocheng Liu, Ying Li Research on Accounting grassroots teaching organization in the era of digital transformation [j]Accounting newsletter,

2022 (16): 40-45

- [6] Yin Feng Jin Construction of virtual simulation “golden course”: path, problems and Countermeasures [j]Journal of Hebei Normal University (EDUCATION SCIENCE EDITION), 2021,23 (05): 115-121
- [7] Xiaoshuang Feng Reform and implementation of audit teaching mode under the background of MOOC [j]Business accounting, 2019 (09): 115-117
- [8] Jinliang Zhang,Zhende Xing,Miao Yang,Jinghan Zhang University double line mixed teaching: connotation, factors and strategies [j]Contemporary education forum, 2022 (02): 80-90
- [9] Kun Li,Lisha Chen, Jiexuan Zhu Design of virtual simulation experiment teaching system for behavior attribution audit [j]Experimental technology and management, 2021,38 (09): 229-236
- [10] Chen Qian, Xiang Qiaojun,Yongfeng Ma,Jun Chen Research on the teaching mode of traffic design course under the background of MOOC [j]Journal of Southeast University (PHILOSOPHY AND SOCIAL SCIENCES), 2019,21 (S1): 140-142
- [11] Zhan Jiang,Xi Qin Construction and guarantee of virtual simulation teaching platform for accounting major [j]Laboratory research and exploration, 2019,38 (10): 238-241
- [12] Wenyong Lan,Qiqi Yang,Juan Xia Research on the teaching of auditing course based on the new auditing standards system [j]Accounting newsletter, 2010 (33): 69-71
- [13] Xifeng Chen Research on the effect of blended teaching based on SPOC mode -- Taking “advertising psychology” as an example [j]Media, 2021 (19): 80-83
- [14] Yanjun Tang,Shizhuan Han,Yun Wang The reform path of new liberal arts accounting talent training [j]Laboratory research and exploration, 2020,39 (11): 275-278+308
- [15] Mei Zhu Discussion on the online and offline hybrid teaching mode of government auditing course for audit majors in Colleges and universities [j] International business accounting, 2020 (12): 71-73

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