

# Applying the MOOC-based Flipped Classroom Education to the Accounting Information System



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**Abstract.** In order to make up for the shortcomings of the existing courses, a MOOC-based flipped classroom teaching mode is proposed to improve students' interest in learning, autonomous learning ability, expressive ability, collaborative learning ability, practical and operational skills. The research results show that through the design and application research of the classroom teaching mode based on MOOC platform, it is found that the teaching mode has positive promotion effect in improving students' interest in learning, cooperative consciousness, autonomous learning ability, practical and operational skills. The MOOC-based flip classroom teaching model can make up for the shortcomings of the traditional classroom teaching model, and truly reflects the "student-centered" education teaching concept. At the same time, the MOOC platform has high-quality curriculum resources, which promotes knowledge transfer and sharing worldwide, creating a lot of opportunities for teaching and learning in different disciplines and subjects. It can be seen that mixed learning can create situations, promote learning orientation, promote students' cognition, enhance the meaning of constructivist learning, promote cooperative learning, and expand thinking development: mixed learning can promote the development of disciplines and specialty.

**Keywords:** flipped classroom, Internet plus, MOOC platform, teaching modes

## 1 Introduction

In recent years, various colleges and universities have applied information technology, multimedia teaching aids, and other teaching methods to education and teaching; however, the teaching methods adopted are still "teacher-centered, knowledge-based teaching mode" that belong to the traditional classroom teaching modes [1-3]. Although the traditional classroom teaching modes of colleges and universities could ensure the orderliness of classroom teaching, they neglect the individualized differences of learners and are in lack of communications and interactions between both teachers and students [4-5]. Therefore, the study highlights the problems in the traditional teaching modes of colleges and universities solved by using information methods.

Accounting Information System, one of the most important core main courses of accounting major, attempts to cultivate students' knowledge and ability in accounting information processing and financial management in the modern information environment [6-8]. The curriculum attribute of the course determines that information teaching methods should be used to achieve good teaching results both in the theory teaching and experiment teaching, especially the latter [9-11].

However, the experiment teaching of the Accounting Information System course offered today by most colleges and universities still adopt traditional teaching methods [12-14]. Take the experiment course of Accounting Information System in Hunan University of Technology for example, all the teaching processes are carried out in the experiment and training room [15-16], in which a teacher demonstrates the operation process after explaining the theories to the students and the students then follow the instructions and operates on the relevant software as required by the teacher [17-19].

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Generally, In such a traditional experiment class, the time for students to operate, discuss and explore is obviously insufficient and students' critical thinking and initiative ability cannot be developed or improved [20-21], which results in their loss of the interest in the course [22]. Therefore, in the era of the information age, the introduction of a new teaching method based on the modern teaching technology is necessary and the MOOC-based flipped classroom should be introduced in the experiment teaching of Accounting Information System [23-25].

As a new open education resource model, MOOC has been attracting more and more attention. Its advantages have a huge impact on the traditional teaching model and have received extensive attention from the education industry. As a new teaching method, MOOC has the advantages of convenient use, low cost, most free, wide-coverage, and rich learning resources. These characteristics and advantages of MOOC just meet the needs of the reform of accounting information system experimental education and teaching and provide strong support for the reform of the experimental teaching mode of accounting information system.

Based on the MOOC platform, the flipped classroom teaching mode could not only help more college students reach the world-class educational resources, but also make them develop better study habits and strengthen their comprehensive abilities, especially their practical ability. Students can conduct independent pre-class learning on the MOOC platform before the experiment class. Then, students can spend most of their time in the experiment class operating the accounting software and discussing with the teacher. In doing so, students are no longer passive recipients of knowledge, while teachers are no longer the indoctrinators. The MOOC-based flipped classroom teaching mode increases the interactions and individualized communications between students and teachers, which better satisfies the needs of individualized learning of students, as well as improving the abilities of self-learning and life-long learning of students, thereby making the students life-long learners with sustainable abilities and qualities.

## 2 Characteristics of the Flipping Classroom Teaching Mode Based on MOOC

Based on the detailed analysis of MOOC platform, flipped classroom and accounting information system experiment course [26-27], this study constructs the MOOC platform analysis index, selects the MOOC platform suitable for the research application, and builds the flipped classroom teaching mode based on MOOC platform [28]. Combined with the characteristics of the experimental course of accounting information system and the analysis of the learner's situation, the teaching design and application research of the flipped classroom teaching mode based on MOOC accounting information system experiment course was carried out [29]. Through the application of the flipped classroom teaching mode based on MOOC platform for accounting information system experiment course, it is expected that the enthusiasm of students to learn the accounting information system experiment course will be improved, as well as the practical ability, self-learning ability, expressive ability and collaborative learning ability [30].

### 2.1 MOOC

At present, some MOOC platforms already have relatively perfect systematic structures which are similar to that of colleges and universities; however, these platforms are still unable to completely replace traditional colleges and universities. MOOC learners need to set their own learning goals and participation, but many learners do not have highly self-controlled learning experiences and abilities. When they encounter learning difficulties or loss of interests, their willingness to learn would be weakened and lead to withdrawal. Therefore, the completion rate of learning on MOOC is relatively low. MOOC also has an imperfect platform teaching management system, insufficient cooperation, and communication between learners, and overload of information, which brings confusion to learners. In the process of specific practices, learners cannot be supervised nor guided; in addition, the online examination supervision systems and measures also have various shortcomings. However, the combination of flipped classroom and MOOC would perfectly compensate for the shortcomings of MOOC.

The flipped classroom refers to the reverse of the traditional teaching mode. The traditional process of teaching in the classroom is changed into the extracurricular activities; while students are studying independently outside the classroom, they often encounter problems such as finding, selecting and

autonomously exploring the learning materials. The MOOC platform provides convenient conditions for students who are learning under the flipped classroom teaching mode. The MOOC platform contains a large number of open learning resources, and students could choose their own learning materials in accordance with their own factors.

## 2.2 Flipped Classroom

As the soft power of national strength competition, education must meet the requirements of the times, and it should be able to cultivate talents who are innovative and creative in adapting to the times and let them master the ability of lifelong learning, cooperative learning, and independent learning to meet the needs of society. The traditional teaching mode regards knowledge itself as the teaching goal, and the teacher as the leader, and considers the teaching process as the accumulation process of knowledge, confined the cultivation of students' self-learning ability and innovative ability. In the traditional teaching mode, the teachers in the classroom have dominance, and it is prone to "indoctrination" teaching and "cramming" teaching, which overemphasizes the role of teachers. Teachers can't fully consider the ideas of students in each class, and can't timely communicate with classmates and explore the doubts and difficulties encountered in the teaching process. Because the teaching time of the traditional classroom teaching mode is limited, the teacher needs to impart the basic knowledge of the teaching materials completely. In the teaching process, students only passively listen to the teacher's lectures, passively remember the knowledge points, so lack of interactive communication links, which affect the students' initiative, potential release, and students' individualized learning and self-learning ability.

Due to the popularity and rapid development of information technology in the field of education, MOOC platform provides conditions for the emergence of the new flipped classroom teaching mode. It creates a freer teaching environment for both teachers and students, provides extremely diverse teaching resources, and enhances the interactions between teachers and students [13-15]. It also profoundly affects the contents and methods of teaching, even the concepts of teaching. In summary, traditional teaching modes are facing serious challenges. The differences between the MOOC-based flipped classroom and the traditional teaching mode are shown in Table 1:

**Table 1.** The comparison between traditional teaching modes and MOOC-based flipped classroom teaching modes

	Flipped classroom	Traditional classroom
Teachers	The designer, tutor, and promoter of learning	The lecturer of knowledge and the organizer of the class
Students	The positive and active learner, cooperater, and explorer	The passive acceptor and listener
Teaching objectives	Knowledge and skills, process and methods, attitudes and values	The management of knowledge
Teaching contents	Problem exploring, cooperative learning	Knowledge instructions
Teaching carriers	Multi-media equipment	Printed materials, objects, models, etc.
Teaching forms	Self-learning before the class; cooperative learning during the class	Listening to the lectures during the class; doing homework after the class
Technical supports	Blackboard-writing	Information technology
Evaluation methods	Homework, exams	Multi-approaches, multi-perspective, diversified methods

The MOOC-based flipped classroom teaching mode maximizes the propagation of the high-quality teaching resources and avoids the shortcomings of the MOOC platforms and the traditional teaching modes. The MOOC-based flipped classroom creates a free and easy learning atmosphere for students; meanwhile, it also increases the interactions between teachers and students and realizes the personalized learning styles; in addition, teachers are no longer just the lecturers of knowledge, but the assistants and promoters of students during the learning process. Teaching resources such as teaching videos and slides of the MOOC-based flipped classroom could be completely preserved, which is convenient for students to review; besides, it also makes up for the insufficiency of students to attend classes due to objective reasons such as illness.

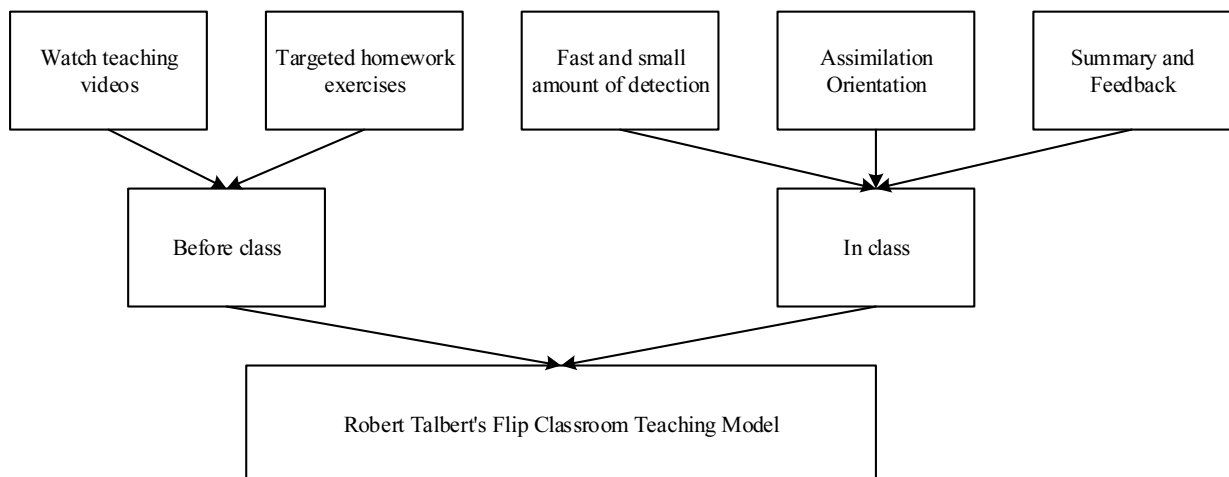
The accounting information system is a kind of management mode; thus, its benefit is actually the system integration benefit, which is the product of the combination of the accounting management system and other management systems. It mainly saves the resources of human, property, and materials, expands the scope of accounting information, improves the quality of accounting information, enhances the accounting decision-making ability, thereby achieving the goals of school management. The benefits of the accounting information system not only include the benefits of network technology but also the management benefits of the school.

The preview learnings of students are very important to the realization of the MOOC-based flipped classroom; however, such preview learnings are not simply reading the textbooks in advance and doing some exercises, which is not the real flipped classroom. Such a preview could only be counted as the simple pre-study works before classes; it should never be regarded as the flipped classroom. Therefore, in order to enable students to truly achieve in-depth knowledge acquisitions before classes, the contents of pre-view learnings must be carefully designed.

### 3 Construction of Flipped Classroom Teaching Mode Based on MOOC

Based on the experiences of the flipped classroom of American Professor Robert Talbert and the advantage of flipped classroom teaching mode designed by Chinese scholar Zhang Jinlei, the paper has constructed the concept of MOOC-based flipped classroom teaching mode. In the course of “linear algebra”, Professor Robert Talbert summarized the teaching structure model of the implementation of the flipped classroom in the linear algebra courses, as shown in Fig. 2. The flipped classroom teaching mode of Professor Robert Talbert consisted of two parts, i.e. pre-class and post-class. Before the class, it was mainly used for students to watch the teaching videos independently and complete the basic knowledge learnings, followed by targeted homework exercises. During the class, it was mainly used for students to test the learning results and conduct team discussions with teachers or peers. After the class, it was used to make a summary and feedback.

On the basis of the flipped classroom teaching model built by Robert Talbert, domestic scholars designed a relatively perfect flipped classroom teaching model as shown in Fig. 1. The teaching model is also divided into two parts before and during class. Students watch the instructional videos before class to complete some new knowledge and test their own learning outcomes. While watching the instructional videos and completing the exercises, if the learners encounter difficulties, they can seek help from the teachers through the communication platform, and can also reflect their learning status to the teachers through the communication platform. Before the class begins, the teacher determines the questions that need to be resolved in the class based on the feedback from the students and creates a learning environment in the class, then students complete the internalization of knowledge through independent thinking and group collaboration, and finally show results and exchange evaluation. This model emphasizes that information technology and activity learning are important factors influencing the smooth implementation of flipped classrooms.



**Fig. 1.** The structure of the flipped classroom teaching mode proposed by Robert Talbert

The two flipped classroom teaching modes designed by domestic scholars and Professor Robert Talbert each has its own advantages. Professor Robert Talbert has set up targeted homework exercises in the pre-course section. The domestic scholars used the communication platform before the class and set up 6 teaching activities in the course. However, Professor Robert Talbert and domestic scholars only consider the two aspects of pre-course and in-class during the construction of the flipped classroom teaching mode. There is no previous analysis and post-class design. Based on this, this study designs a flipping classroom teaching mode based on MOOC platform as shown in Fig. 2. The learning model includes 4 sections of the previous analysis, pre-course, in-class, and post-class. In previous analysis stage, the learner analysis, teaching goal design, teaching content design, and teaching environment design are set up. Through these four aspects of design and analysis, learning materials (MOOC video, document materials, PPT, etc.) are developed so that students can better conduct pre-class study and lay the foundation. The pre-class session sets up video viewing and pre-course exercises based on the MOOC platform. In this module, students can watch teaching video and proceed pre-course exercises on the MOOC platform and communicate with companions and teacher when encountering problems. This module fully satisfies the individualized needs of the students, and also maximizes the dissemination of high-quality teaching resources, and also enhances students' autonomous learning ability. In the class, the creation of scenarios and problem determination, analysis of problems and independent inquiry, group collaboration and teacher-student exploration, problem-solving and results exchange, and teacher-student summary and feedback evaluation are set up. Students can better complete the internalization of knowledge in the module, fully exercise their ability of expression, collaborative learning and practical ability. In the post-class module, knowledge consolidation, evaluation reflection, expansion and enhancement are set up, in which students can better consolidate knowledge.

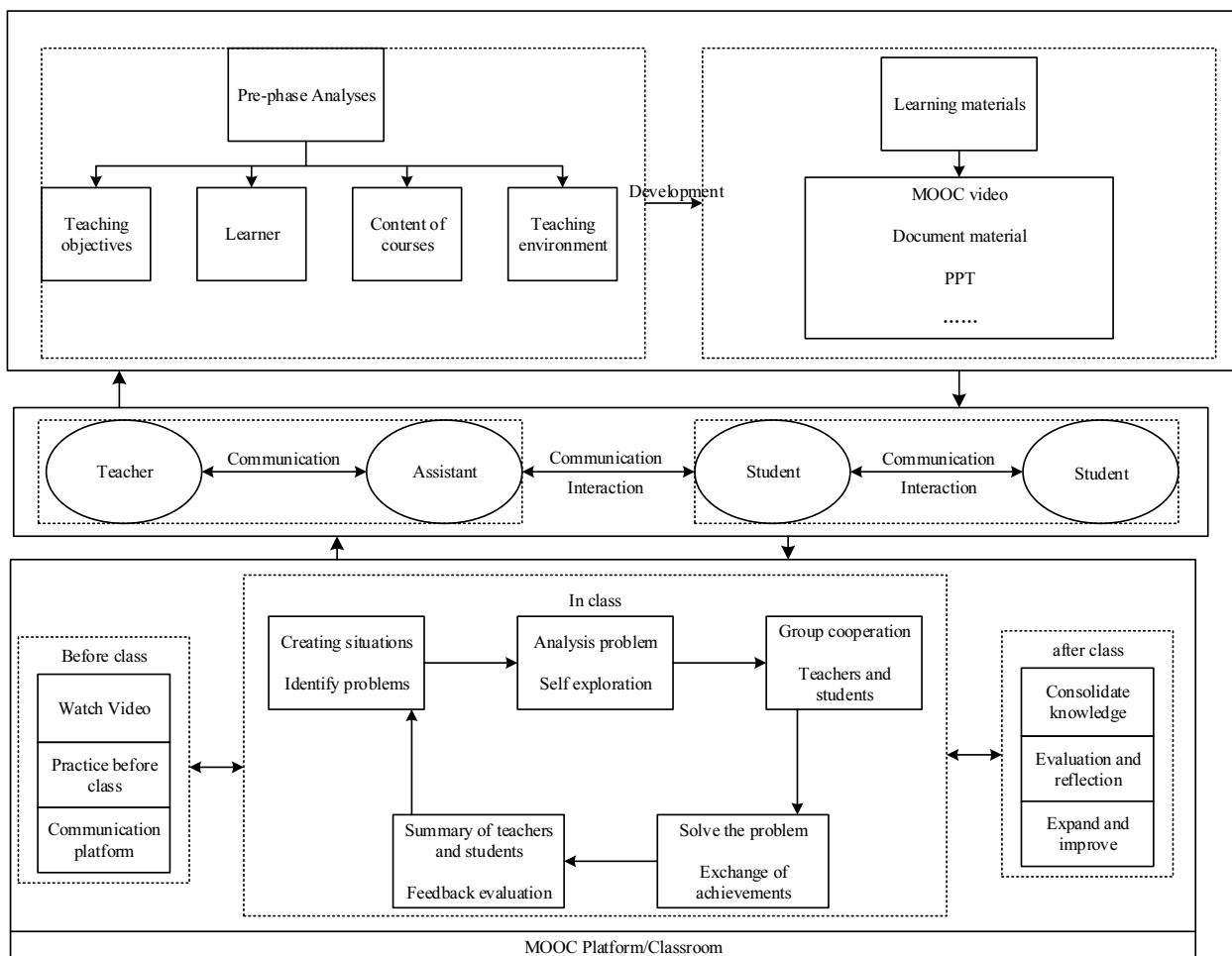


Fig. 2. The structure of MOOC-based flipped classroom teaching mode

The teaching mode is built to accomplish certain teaching goals. In the process of constructing the teaching model, the teaching goal is at the core position, and the teaching goal plays a restrictive role on other factors that constitute the teaching mode. It determines the syntagmatic relation of teaching activities in which the teachers and students participate in the teaching model and the procedures to be implemented. It is also the scale and standard of teaching evaluation. Based on the MOOC flipped classroom teaching mode, students' overall development is the overall teaching goal. Their pre-course, in-class, and post-class sections also have their own teaching goals.

The core idea of flipping classroom design is to reverse and flip the two aspects of knowledge acquisition and internalization of knowledge in traditional teaching activities. That is, the acquisition of knowledge can be realized before the class by students. The problems that the students can't solve and the knowledge internalization process that requires teacher's guidance, inspiration, evaluation, etc., is completed in class. In the specific operation process, the content of the flip is not limited to the specific learning materials and can be extended to the flipping of the learning environment and the flipping of the learning process. The author, on the basis of the above-mentioned teaching modes, proposes the problem-solving flipping classroom teaching mode and puts forward the following teaching design.

### 3.1 Teaching Design Before the Experiment Class

The teacher first divides a series of sub-goals of the experiments of the Accounting Information System according to the overall teaching objectives, and then subdivide them into specific tasks according to the sub-goals. This process has important guiding significance for the realization of the teaching goals. If the target division is unreasonable, unscientific, or the task design is not operational and inconvenient to evaluate, it will affect the implementation of the entire teaching process. At the same time, different from the traditional teaching goal division and implementation, this process should adapt to the characteristics of independent learning conducted by the students before the class, with the task as the core, highlighting the students' problem-solving skills. Secondly, according to the detailed tasks and the actual situation of the students, the corresponding learning materials, mainly the MOOC courses, are introduced to meet the students' basic knowledge reserves. This process is the basis of the teaching process. While implementing the task, the students solve the actual problems encountered through the learning and get familiar with the supporting materials, complete the tasks, and then achieve the learning objectives. Therefore, the learning materials provided by teachers must be based on the teaching objectives and should be resolved around the task as far as possible. At last, the teacher decomposes the tasks, all of which are connected to each other. The leading tasks are the basis of the follow-up tasks; the students are grouped to ensure that different groups complete the same tasks, with the intention of promoting the learning atmosphere of teamwork, promoting Inter-group exchanges and discussions, paving the way for later evaluation.

It is worth noting that it is not enough to provide students with learning tasks and support learning materials when students are conducting self-learning practice. During the process of the task, the students will surely encounter many problems such as the lack of study materials and the mess in group coordination. At this time, the teacher is not a bystander, he should be based on specific problems, use remote assistance tools to effectively answer questions through the MOOC auxiliary platform., ensuring the smooth implementation of teaching tasks.

### 3.2 Teaching Design in the Experiment Class

Based on the performance of the students' learning activities before the experiment class and the questions generated during the task-completing process, the teacher needs to organize the teaching activities such as the reporting, evaluation and subsequent task arrangement. First of all, through organizing intra-group communication and inter-group Q&A activities, teachers should try to make students themselves solve more problems. For the problems that students cannot solve, teachers should discuss with the students about the problems and try to find out the origins of the problems, such as lack of supporting materials, insufficient knowledge and understanding of students, etc., Second, the team leaders should report the completion of the mission. In this case, the teacher can know the implementation process of the entire task, including the team's divisions of tasks, the leader, and how the team member collaborates with one another, etc., while providing guidance for the implementation of the following tasks. The third step is the assessment of the completion of the task, mainly conducted in the

form of self-assessment within the groups, mutual evaluation between groups, and comprehensive evaluation by teachers. The completion of the work is compared with the original teaching objectives. Finally, the following tasks should be arranged on the basis of the implementation of the previous tasks.

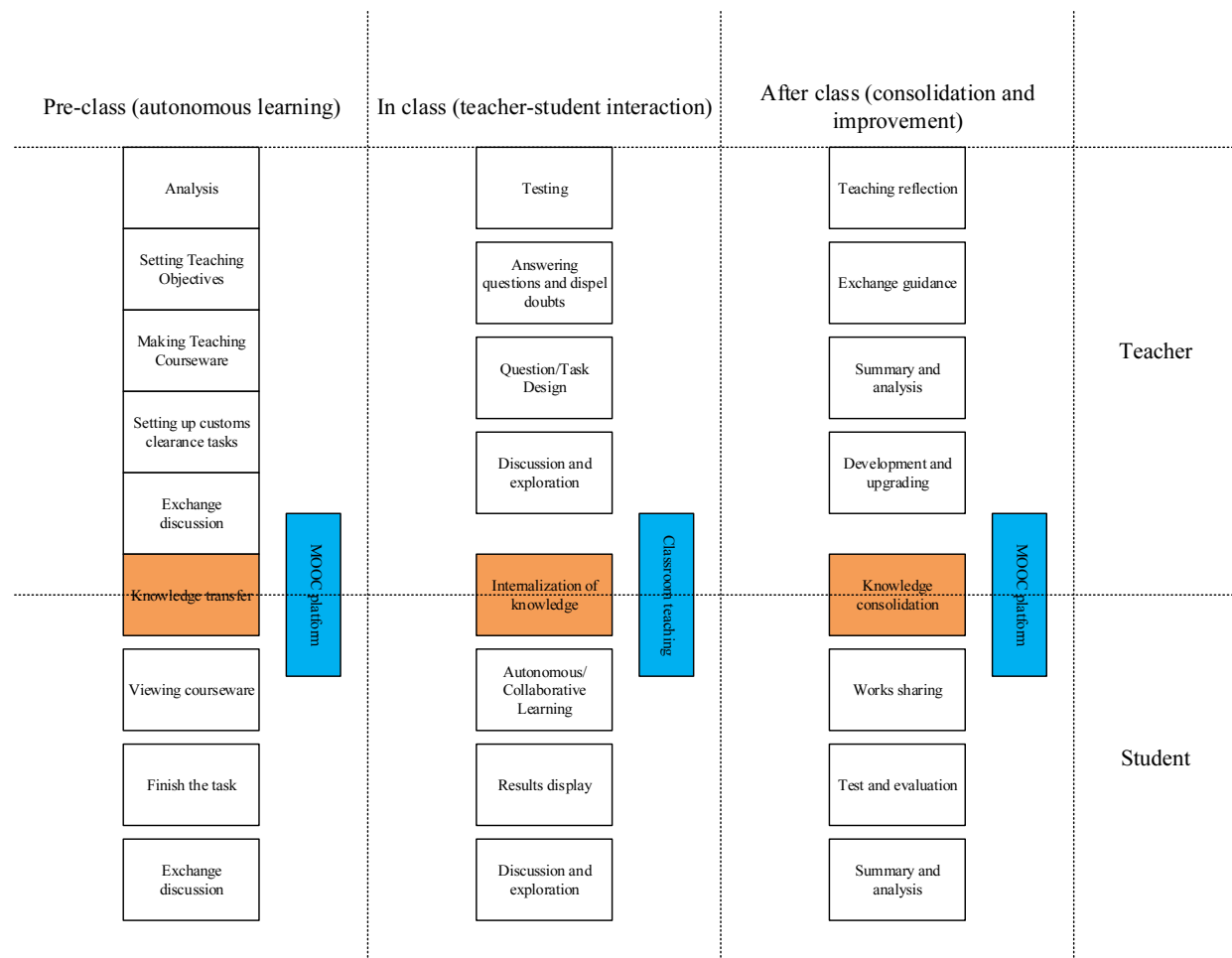


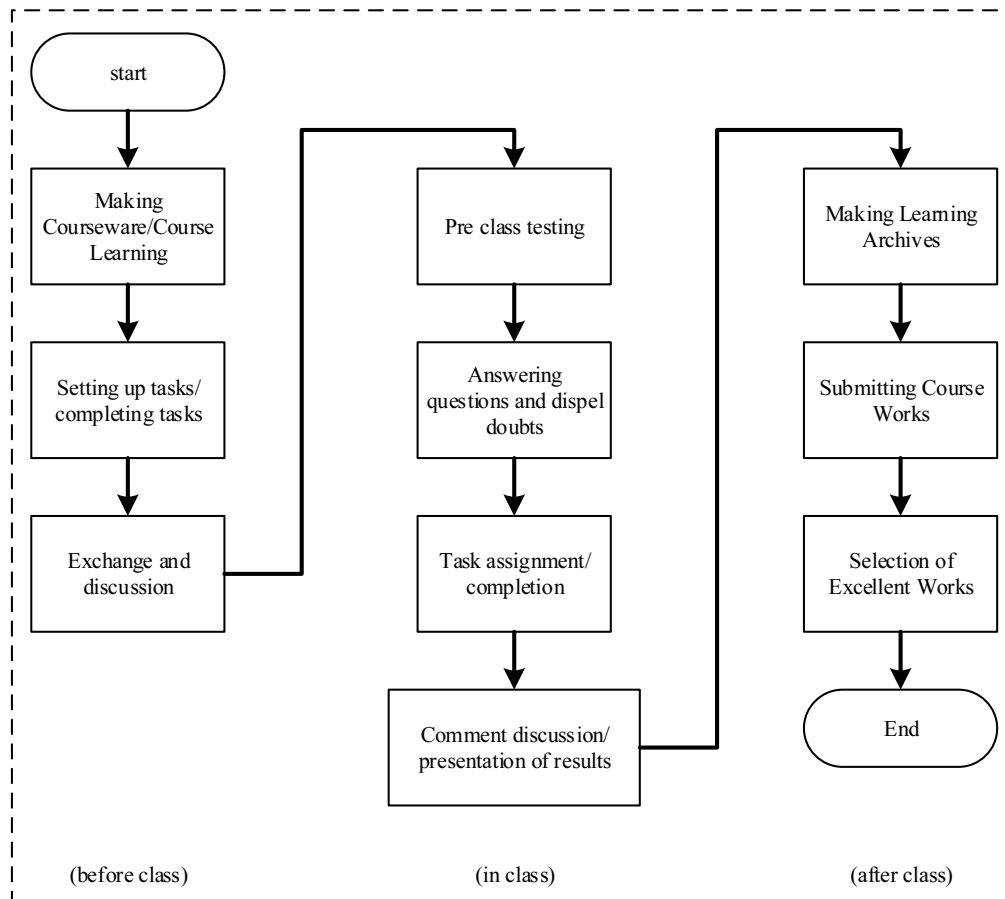
Fig. 3. The comparative teaching based on MOOC mode

In the classroom learning environment, students first need to summarize the problems encountered before the class, and the group members should determine the problems to be solved in the experiment class. Secondly, the team leader should reports to the teacher and classmates on the specific situation and task progress of the learning activities before the class, and conducts group discussion and inter-group Q&A activities under the teacher’s organization, through which the students can enhance the emotional communication and cultivate team spirit, and also solve more problems. The opportunity is given to the students to develop their ability to explore and solve problems. The teacher should help solve the problems faced by the students. Finally, students should participate in intra-group evaluation and inter-group evaluation activities.

## 4 Evaluation of Flipped Classroom Teaching Mode Based on MOOC

### 4.1 Experimental Design and Environment

Teaching assessments are the processes of judging the values of the teaching effects based on the degree of completion of the teaching objectives. Through a large amount of information obtained from the feedback of teaching evaluation, teachers could regulate their teaching activities, motivate the learnings of students, and help themselves improve their teaching plans. As a new kind of teaching mode, the teaching evaluation of MOOC-based flipped classroom should also have its unique roles.



**Fig. 4.** The operation process of the experiment

**Before the class:** In the previous round of teaching, the teachers have neglected the students' pre-class studies, which has led to poor follow-up teaching. In this round of teaching, the teacher has informed the students to learn through various channels such as class notice, platform announcement, and group private message. At the same time, in the pre-class studying process, the learning situations are checked, and the studying statuses are supervised at any time, thereby actively communicating with the students, enhancing the students' goodwill towards the course, and going deep into the study. In the process of learning, students would raise questions that they do not understand, and teachers would give answers in a timely manner.

**During the class:** the teachers quickly check the students' pre-class learning situations (teachers can use the platform to learn the data to show the summary and combine the on-site inspection to ensure the authenticity of the results), analyze the test results, explain the typical error questions in detail, and design the course tasks finally. The students ask the teachers about the questions they do not know before class and carry out the autonomous/assisted learning under the teachers' organization, as well as completing the tasks set by the teachers for practical operation and demonstration.

**After the class:** Another difference from the previous round of action research is that the curriculum discussion is transferred to the after-school class. The students reflect that the pre-class discussion is in the form, and they cannot really ask valuable questions. However, the discussion after class is the internalization of knowledge acquired during the daytime. Through the operation and display during the day, the students not only mastered the basic knowledge but also accumulated a lot of experience and questions. Therefore, the after-school discussion is more valuable.

The mastery of knowledge and the comprehensive development of students must be ensured. The purposes of the assessments and evaluations of the traditional teaching mode are to classify the students, while the assessments and evaluations of the MOOC-based flipped classroom teaching help students achieve better overall development. The assessments and evaluations of the new teaching mode could better judge the mastery of knowledge of students and help students understand their actual mastery levels of knowledge.



The fairness of performance evaluations should be guaranteed. The traditional classroom teaching assessments and evaluations of students only consider the results of examinations; such assessments and evaluations are unfair and will lead to the frustration of the self-confidence of students, dispel the enthusiasm for learning of students, and affect the healthy mental developments of students. Students are equal individuals. The assessments and evaluations conducted by teachers based on the scores of students are not conducive to the overall developments of students. Therefore, the assessments and evaluations of the MOOC-based flipped classroom teaching mode consist of multiple measurement dimensions to ensure the fairness of student performance assessments.

#### 4.2 Teaching Materials and Activities

The teaching goal of the class based on MOOC flipped classroom teaching mode is to enable students to better complete the internalization of knowledge, cultivate students' collaborative learning ability, expression ability and practice ability through the creation of scenarios, problem analysis, and self-exploration, group collaboration and teacher-student exploration, problem-solving and achievement communication, and teacher-student summary and feedback evaluation.

The implementation of each teaching mode is subject to various conditions, and the main conditions affecting the implementation of the classroom teaching model based on the MOOC platform include the educational concept of the educated, the educational concept of the educator, and the information literacy of the educator and the educated, the ability of teachers to construct teaching design, the ability of students to learn independently, the equipment of software and hardware.

**Table 2.** Comparison of application knowledge and skill differences in MOOC flipped classroom education in accounting information system

Items	1	2	3	4	5	6
Survey objects						
The experimental class	4.65	4.59	4.82	4.15	4.38	4.50
The control class	4.66	4.69	4.69	4.10	4.41	4.28

**Table 3.** Comparison of application process and method of MOOC flipped classroom education method

Items	7	8	9	10	11	12
Survey objects						
The experimental class	4.44	4.38	3.79	4.35	4.41	4.56
The control class	3.94	3.78	3.31	3.44	3.47	4.60

**Table 4.** Comparison of differences in emotions, attitudes, and values

Items	13	14	15	16	17	18	speed=auto duplex=auto	20
Survey objects								
The experimental class	4.00	4.21	4.56	4.24	4.24	3.65	4.41	4.71
The control class	3.72	4.16	4.13	4.31	3.59	3.25	4.31	4.66

In terms of students, before implementing the flipped classroom teaching mode based on the MOOC platform, it is important to understand the learner's concept of learning, to investigate whether they can accept this new type of teaching model, and to be willing to start a series of learning in the new teaching mode. Then, it is necessary to understand the status quo of learners' information literacy and see if they have basic computer operation ability. Finally, it is necessary to understand whether the learner has the hardware support to implement the MOOC platform-based flipped classroom teaching mode. Because the pre-class learning session of the flipped classroom teaching mode based on the MOOC platform requires the learners to perform on the MOOC platform, the learners must have hardware such as a computer or mobile phone. Also, it is also important to learn about the learner's ability to operate some communications software and operating systems to communicate with teachers and peers before and after class.

In terms of teaching staff, teachers should have good information literacy, and have the ability to explore new things, and they should be willing to become teaching assistants of students. They should also have the ability to develop good instructional design under the guidance of a new teaching model.

**Table 5.** The evaluation methods of MOOC-based flipped classroom teaching mode

Methods	Basic requirements
Written homework	Finished in time as required
Group discussion	Positively participated; the group scores were taken as the score of each member
Computer experiments	Realized the basic requirements of experiments
Openness experiments	Answers of students mustn't be sole
Examinations	Once at the end of each semester; closed-book examinations

### 4.3 Evaluation and Discussion

The major evaluation items of MOOC-based flipped classroom teaching mode include: attendance, feed-forward situations, classroom performances, group performances, exercises, quizzes, practices, openness examinations; the detailed requirements and occupations of the items are shown in Table 6.

**Table 6.** The composition of evaluation items

Item	Times	Occupation	Remark
Feedforward situations	14	5%	Individual or group, 5 times of evaluation per student on average
Classroom performances	15	10%	Individual or group, 5 times of evaluation per student on average
Exercises, homework, or quizzes	15	15%	Individual, 5 times of evaluation per student on average
Openness examinations	1	25%	Performed since the 16th week to the 18th week
Computer experiments	5	15%	3 points for each class
End-of-term examinations	1	30%	Closed-book examinations
Total			100%

The grade standards of MOOC-based flipped classroom teaching mode are composed of three major parts, i.e. the learning process evaluation method and scores, practices, and openness examinations. These parts also contain several detailed rules and regulations, as Table 7 indicated.

**Table 7.** Standards of score

		Absence no less than 1/3	0 points
Learning process evaluation method and scores	Occupation of attendance 0~5 points	Not full attendance; absence more than 15% but less than 1/3	1~4 points
		Absence of less than 15%	5 points
		No awareness of the preview; or being aware of the preview but not finishing it	0~1 point
	Occupation of feedforward evaluations 0~5 points	Being aware of the preview, not finishing all of the contents of self-learning	2~3 points
		Being aware of the preview, preferably finishing the contents of self-learning	4 points
		Being aware of the preview, completely finishing all of the contents of self-learning	5 points
	Occupation of classroom performances 0~5 points	Bad	0 points
		Ordinary	1~3 points
		Satisfied	4 points
		Complete immersion in the classes	5 points

**Table 7.** (continue)

Occupation of group performances 0~5 points	Never participating in the group discussions	0 points
	Participating in the group discussions	1~3 points
	Preferably participating in the group discussions	4 points
	Positively and actively participating in the group discussions	5 points
Occupation of homework 0~10 points	Not finishing the homework, or copying the homework of others	0 points
	Not finishing all the homework	1~3 points
	Preferably finishing the homework	4~9 points
	Independently, seriously, and carefully finishing the homework	10 points
Occupation of practices 3 points for each, 5 in total, 0~15 points	Not proposing practice reports, 0 points	Accumulated by the number of times, 15 points in total
	Preferably proposing practice reports, 1~2 points	
	Carefully proposing practices reports, 3 points each	
Occupation of openness experiments 0~25 points	Fail to complete case analysis reports, phased project development, and phased tests on time	0~5 points
	Capable of completing case analysis reports, phased project development, and phased tests on time, with ordinary quality	6~15 points
	Capable of completing case analysis reports, phased project development, and phased tests on time, with satisfied quality	16~25 points

Students are required to submit an assignment every two weeks, and each assignment is recorded on a 10-point scale; the total scores would be weighted to 10% of the total scores at the end of the semester.

The calculation equation is:

$$\sum n(g \times q) \times (n/N) \tag{1}$$

That is, the written score is equal to the sum of the weighted scores for each assignment multiplied by the number of submitted assignments divided by the total number of assignments.

First of all, the daily grades account for 45%, i.e. 45 points, and the instructors are specifically responsible for the daily grade assessments. The specific practices are as follows:

The students are divided into three groups, the detailed regulations of assessments are proposed in accordance with the pre-class section, the intra-class section, and the post-class section; the total score of each class is 100 points, in which the pre-class section accounts for 20 points, the intra-class section accounts for 60 points, and the post-class section accounts for 20 points, scores that students obtained in each class are weighted in accordance with certain ratios. Of all the 20 points in each pre-class section, the preview and problem thinking account for 10 points, the easily confused knowledge, the error-prone knowledge, the easily missed knowledge, and the easily neglected knowledge of feedforward account for another 10 points. Of all the 60 points in each intra-class section, the participation of group discussion accounts for 20 points, the class statements account for 10 points, the classroom performances account for 30 points. Of all the 20 points in each post-class section, the mutual evaluations of group members account for 5 points, the quality of homework accounts for 10 points, and the participation of extracurricular activities accounts for 5 points.

Second, the practices account for 30%, 3 times in total; each practice accounts for 10 points, 30 points in total.

Finally, the openness examinations account for 25%, occupying 25 points in total.

Through the calculations of the above standards, the final scores of students should be at least 60 points to pass the course, or the students would fail the course.

## 5 Conclusion

In summary, MOOC-based flipped classroom teaching mode has obvious advantages over traditional teaching in the experiment teaching of the Accounting Information System. It can stimulate students'

learning motivation, and cultivating their independent learning and cooperative learning ability. Since the flipping classroom pays more attention to the students' independent and initiative learning and the initial learning of knowledge is arranged before the class, as long as the learning resources and materials are sufficient and valuable, students at all levels can arrange their own learning progress and select knowledge points, they will gradually eliminate the "one size fits all" phenomenon in traditional classrooms.

The application of the flipped classroom teaching mode would play an increasingly active role in stimulating the vitality of classroom teaching and improving the quality of teaching. Therefore, college teachers are generally welcome to the flipped classroom teaching mode, mainly due to the reason that the flipped classroom teaching mode can get rid of the low-level repetitive labor with valuable creative activities.

To maximize the advantages of the flipped classroom teaching mode, teachers and students should overcome various difficulties. Teachers should not only learn to produce, search and sort relevant learning resource, but also learn to organize class activities and inspire students' critical thinking and independent thinking abilities. Students should actively learn to improve initiative learning and self-managing abilities. Only with full cooperation and application of modern teaching devices can MOOC-based flipped classroom teaching Mode in experiment teaching of Accounting Information System optimize the teaching effect.

In order to maximize the dissemination of high-quality educational resources and cultivate high-quality talents that are more suitable for social needs, it is of practical value to use the MOOC-based flipped classroom teaching model in the experimental teaching of accounting information systems. Although this study was carried out certain teaching practice applications based on the MOOC flip classroom teaching mode, due to limited time and energy, the depth and breadth of practice can't be improved. It only pays attention to the course of experimental teaching of accounting information system. Therefore, in the subsequent research, the teaching mode should be applied in more subject areas and research objects. It is expected that through practice, the teaching mode based on MOOC flipped classroom will be perfected to construct a teaching mode with higher adaptability.

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