

# A Practical Study of Corporate Finance Teaching Based on Blended Learning

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**Abstract.** Blended learning combines the advantages of traditional classroom and online learning, and becomes the preferred teaching model at present. Combined with the exploration of the mixed teaching model of corporate finance courses in recent years, from the teaching design, teaching implementation and teaching effect three dimensions, this paper states the role of mixed teaching played in corporate finance courses and the problems to be solved for improvement. Examples are given to illustrate how to integrate online learning with offline learning before, during and after class, and how to improve classroom efficiency by using learning methods such as the course "knowledge tree", to deepen students' cognitive level and improve their professional quality.

## Introduction

Since Comenius put forward in 17th century that "it is better for young people to be taught together in large classes", the class-based teaching model has become a stable teaching one. In recent years, however, with the development of educational informationization, online learning models like MOOCs, micro class, flipped classroom and the cloud university develop rapidly because these models extend the space and time of learning and learners can be independently regulate the learning process. And face-to-face class teaching can make up for the deficiency of direct interaction of online learning. Therefore, blended learning which integrates the advantages of face-to-face teaching and online learning models emerges as the times require and is referred as a more effective teaching model. However, the teaching effect of blended learning needs to be verified in practice. Almost all colleges and universities at home and abroad offer corporate finance courses while in the course of literature review it is found that there is little literature to introduce the blended learning experience of finance and accounting related courses. So it will be instructive to discuss the blended learning content of corporate finance courses. This paper will state the role of mixed teaching played in corporate finance courses and the problems to be solved for improvement from teaching design, teaching implementation and teaching effect the three dimensions.

## Teaching Model Design Based on Blended Learning

In consideration of more rich and complex online curriculum resources, Curtis J. Bonk proposed "blended learning design process" in the book "The Handbook of Blended Learning" [2]. Based on the process which includes Analysis, Design, Development, Implementation and Evaluation, the teaching process of this course is designed from three aspects: preliminary analysis, activity and resource design and teaching evaluation.

### Preliminary Analysis

The best design is to act according to actual circumstances, so the first step is the preliminary analysis which includes course features analysis, learner analysis and the analysis of the learning environment with the clear learning and training targets.

### ***Clear Learning and Training Targets***

Constantly upgrading of the accounting information system and the emergence of financial intelligent robots improve the work efficiency by helping the financial personnel to complete a large number of repeat regulation work, however, the information that systems and the robots process can only be converted into decision-making useful information through human analysis. In other words, Modern society on the company's financial management and accounting graduates put forward higher request, in addition to possess professional knowledge and learning ability to acquire new knowledge, more to have the ability of thinking and analyzing . Based on the content just discussed, this paper distinguish students' learning and training target between three levels: first level, know what; second level, know why; third level, reflection, to which the students have the ability of thinking and analyzing. In learning activities, students is the intrinsic factor and so to improve students' autonomous learning motivation and learning interest is the key to students learning levels improving. Carl Newport, M.I.T. computer doctor has found that a good knowledge of one's professional skills will lead to interest, passion and success in learning or working.

Blended learning provides students more resources and learning methods which can help more students to transfer from the first cognitive level to the second and even third one. When students master some of the knowledge, they will have more interest and enthusiasm to study further. This process will lead to positive cycles that more and more students get the third level. Figure 1 depicts the change and transformation in students' cognitive levels between traditional teaching mode and blended learning.

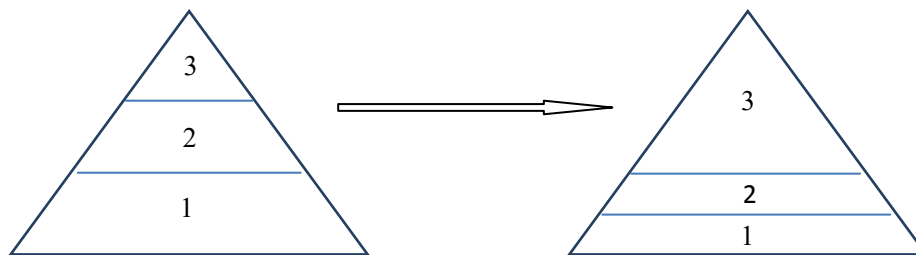


Fig. 1, Transformation in cognitive levels

### ***Analysis of Course Feature***

Knowledge points of corporate finance are closely linked and logical, so beginners often see no forest for trees and not to establish a knowledge system. The features of this course require teachers to pay attention to the establishment of knowledge system in the process of teaching. Besides, through into the feedback of questionnaires and classroom observation, we have found that the students' interest in learning this course were strong at the beginning of the term and also knew the importance of this course, however, they often failed to perform preview task because of lack of corresponding consolidation method and resources. These characteristics all should be taken into account in the design of teaching activities.

### ***Analysis of Learner Characteristics***

The course of corporate finance is opened in the second semester for sophomore students who have a certain foundation in accounting and related subjects. According to the teaching experience in recent years, students are more active in thinking and have good classroom interaction while they are less active in learning and have greater learning inertia. Besides, only a few students can respond to the interaction when knowledge points cover other relevant subjects in class because most students' knowledge is still at the first cognitive level one or even below. According to the general rule of knowledge mastery, the lower the level, the less understanding of knowledge points. Such characteristics of students require that students' interest should be grasped and reasonable guidance should be given; beyond that, in order to ensure the effect of learning, the online and offline process teaching activities and assessment methods should be reasonably designed.

### Analysis of Learning Environment

Learning environment is mainly reflected in the technical environment. Course website of corporate finance was set up in 2013 and is switched to Tsinghua University education online comprehensive platform in 2016. In other words, from 2013, we started to try blended learning on the course and gradually improve.

### Analysis of Teaching Activities and Resource

Analysis of teaching activities and resource is the key point of teaching model designs, including: integrated learning design, unit (activity) design, resource design and development. The development and improvement of the blended learning activities of this course lasted about 5 years (2013-2018), following the principle of demand guidance; adjusting the existing weak links in teaching timely and combing the respective advantages of online and classroom teaching to achieve the complementary advantages. Combined with the previous analysis of the course, the current teaching activities of the course which have covered before, during and after class three periods are sorted out as shown in figure 2.

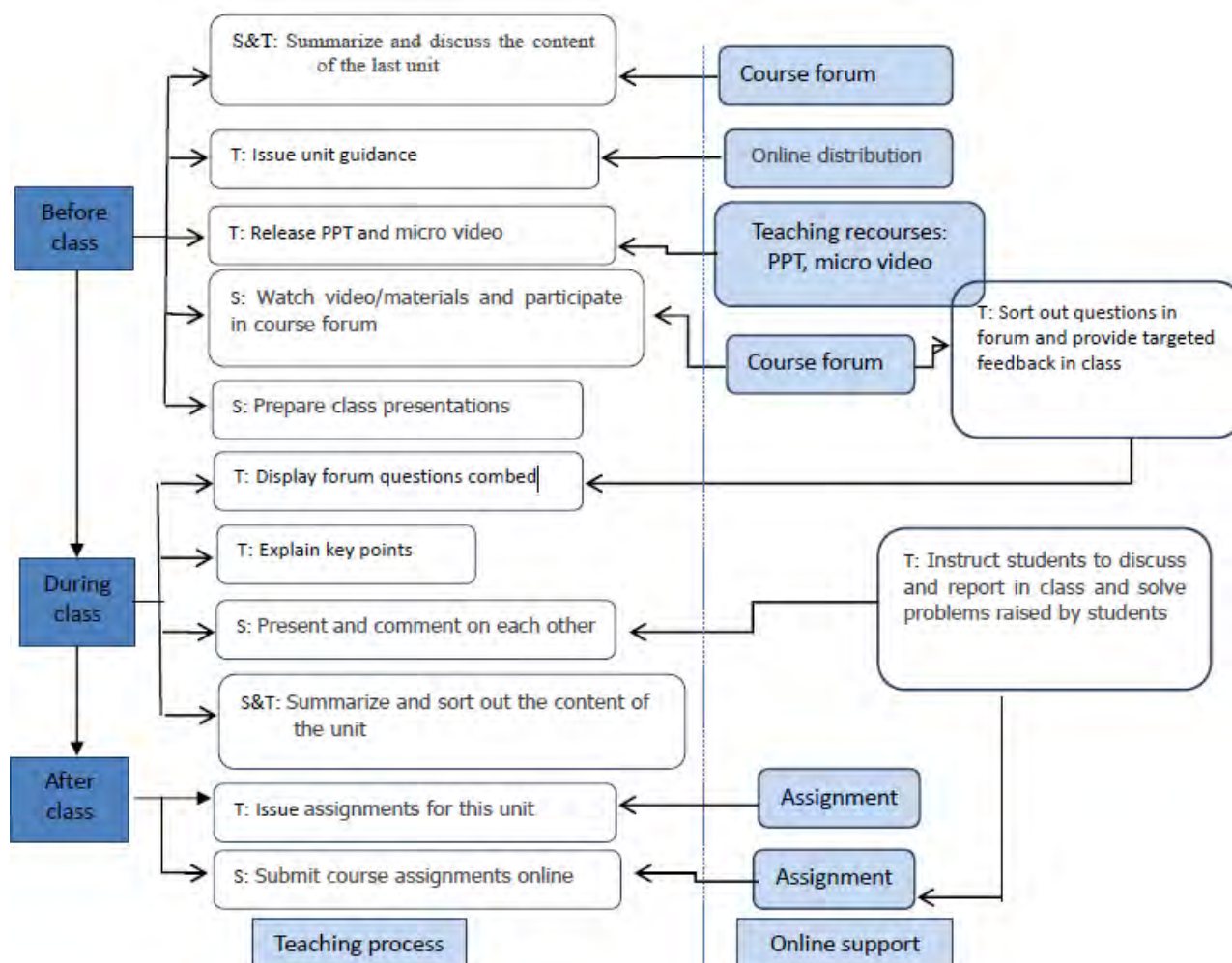


Fig. 2, Flow chart of blended learning activities

### Preparation before Class

Before class, the preparation of teachers is much and important. First of all, the teacher talks about the content of last unit with students at course forum and then issues the guidance of the next unit with electronic courseware, the teaching micro video and other learning materials. For students, they need to complete online pre-class tests or prepare class presentations after watching teaching video and other materials and then participate in course forum if there are questions. The last pre-class teaching activity is that teachers check and sort out the problems at course forum, record

the common problems, guide students to in-depth discussion, or point out the mistakes for correction. These common problems are often the important content of classroom knowledge explanation.

### ***Organization of Class***

In the first part, the content of course forum about this chapter is sorted out is shown to the students and the key topics are explained in combination with the content of the lecture. The second part is the knowledge explanation, which carries out the "knowledge tree + problem guidance" organization model different from the traditional "spoon-feeding " method. It was found from the survey that many students thought that the knowledge points of corporate finance were scattered and there was no connection between certain chapters and knowledge points, so it was difficult to have a comprehensive cognition after the study. In view of this common situation, this paper puts forward the "knowledge tree ", each important part of which represents an important concept or knowledge point of corporate finance. The main content of corporate finance is presented vividly, and each specific knowledge point is the extension and decomposition of these parts, thus establishing the internal connection and logic between knowledge points. In addition, the "problem guidance " teaching method is adopted in the specific knowledge explanation, which is closely consistent with the pre-class teaching activity "issue guidance of this chapter". During class, the knowledge explanation is arranged according to the order of "questions guidance". Students express their views on various problems, and teachers guide them to complete the "flipped classroom".

### ***Arrangement after Class***

After class, the teacher issues the assignments of this unit, and the students finish the homework and test online. After finishing the study of a unit, the teacher sorted out the typical and key questions of course forum about this unit, which is an important reference material for students' review and an important teaching resource for future reference.

### **Teaching Assessment**

The blended learning model inevitably requires process assessment and urges students to study in the process. The assessment method and proportion are shown in table 1.

Table 1, Assessment methods and proportion

Assessment methods		proportion
Online learning	Video watching, activity in forum, online learning time, practice in class	15%
	Unit test	15%
	assignment	10%
Offline assessment	Interaction and presentation in class	20%
	Final test	40%

## **Specific Implementation of the Course**

### **Preparation before Class**

The most important link before class is to publish unit guidance. Table 2 shows the relevant tasks and assessment requirements by taking the investment evaluation sub-unit as an example. As mentioned in the course activity above, students preview textbooks with the help of network resources, complete relevant tests and display contents, and timely feedback problems encountered in the learning process to course forum. In the final link before class, the classroom should collect and sort out the learning difficulties and problems in this chapter, so as to prepare for the next class to solve the puzzles.

Table 2, Guidance of investment evaluation sub-unit

Learning tasks	instructions	methods	requirements	Teaching plan
1. Summarize the 6 problems (see table 3 )	Cover the basics of the textbook	Read the textbook for reference, forum interaction	Classroom discussion, presentation	A total of 4 class hours, 2 for knowledge explanation by teacher; 2 for Class presentation and mutual assessment by students
2. Complete the online test	Online testing involves basic knowledge	On the basis of task 1, carry out the question bank exercise	Complete unit test	
3. On the basis of skillfully calculating various investment evaluation indicators, master the applicable scope of each indicator	The difficulty and emphasis of this unit	Micro video, class explanation, forum interaction	Complete the unit case analysis in groups for class presentation and mutual assessment	

Table 3, The problem list to be solved of Investment evaluation sub-unit

1	How to calculate NPV?
2	How to calculate IRR?
3	What are “mutually exclusive projects” and how to choose?
4	How to interpret the three pitfalls with the IRR rule?
5	How to calculate the profitability index and how to use?
6	How to calculate payback period and how to use

### Arrangement During and After Class

By summarizing and sorting out the problems of interaction at course forum before class, it is found that the difficulties of students' preview mainly focus on the difference between the IRR and the opportunity cost of capital and the judgment trap of the IRR (question 2 and 3 from table 3). As for the unit test, the time arrangement is relatively flexible, which can be completed in class or after class. Before the test, students can choose problems randomly from the item bank to exercise to further consolidate the learning results. The knowledge blind spots in the test can also be fed back to course forum. In this unit, teachers teach the key and difficult points according to the feedback for 2 class hours and 2 class hours for students' presentations in which someone of each group will give a lecture, and the other students will answer questions from the other groups. Each group member must participate, and the teacher and other groups will grade at the same time. After the presentation and sharing, the teacher summed up and accepted the modification Suggestions. Each group improved their own results and uploaded them to the course website.

### Teaching Effect Evaluation

In this semester our school has set up corporate finance courses for 310 students who are in their sophomore year and major in financial management or accounting. The 310 students had the same professional foundation. 310 students were divided into four teaching classes, of which 152 students from two classes participated in the blended learning experiment. At the end of the whole teaching process, we conducted a questionnaire survey on students participating in blended learning, and made a comparative analysis on the teaching effect of blended learning and traditional teaching mode.

### Summary of Student Questionnaire Result

At the end of the semester, an online questionnaire survey was conducted on 152 people who participated in the mixed teaching reform. A total of 150 survey results were collected which shows students' recognition of the blended learning (83.4% for those who like it or very much) is 83.4%. The degree of recognition that blended learning can effectively promote the learning of this course



is 86.7%. In addition, the blended learning mode has more than 60% recognition on improving independent thinking, problem analysis, learning interest and expression ability. It can be seen that students' overall recognition of blended learning mode is very high.

### Compared with the Traditional Teaching Model

In order to further verify the differences between the blended learning mode and the traditional teaching mode in students' knowledge acquisition, the same exam papers were used in the final classroom test for 4 teaching classes and the test results were statistically analyzed, among which, the teaching contents of four teaching classes were the same, and the test contents were subjective calculation and analysis questions. The comparison results are shown in table 4.

Table 4, Comparison of blended learning and traditional teaching effects

items	results
excellent rates ( $\geq$ score 90)	rise by 10.3%
failure rate ( $<$ score 60)	decrease by 9.61%
GPA	rise by score 9.51

### Summary

Both from the aspects of theoretical analysis and the results from practice, the blended learning mode which expands the students' learning space and depth has a great positive role in promoting corporate finance learning and has improved students' ability to study independently, think independently and the ability to analyze and solve problems. However, the construction period and implementation period of the whole blended learning reform require a lot of energy input from teachers and strong support from schools. In addition, as students involved in blended learning, they also have to spend more time and energy than traditional courses. How students and teachers to better adapt to their own roles, and how to make online learning and classroom teaching fit each other should be explored and improved in the following practical teaching.

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