

# Research on Improving Teaching and Assessment Methods in Finance Course

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**Keywords:** Finance; Teaching methods; Assessment methods; Practical application

**Abstract:** The Finance course is a basic course for finance major. It covers a wide range of knowledge and theories. In traditional teaching, students are passively accepting the knowledge and the learning process is not effective. Based on the teaching experience, this paper analyzes the problems existing in the teaching and assessment procedure of this course, then gives methods to improve the teaching and assessment according to the characteristic of this course. The methods include case study, using Microsoft Excel and Internet resources. It aims to improve the quality of teaching in finance course and enhance students' practical application of knowledge, their collaboration skills and creative consciousness.

## 1. Overview

The Finance course is a core and introductory course of finance major. It covers many aspects such as currency, interest rate, credit, financial markets, financial institutions, and monetary policy. The knowledge and theory covered by this course is extensive and the amount of information is large. Through the study of this course, students should fully understand the financial categories such as currency, credit, interest; master the instruments in the capital market and the money market; have an in-depth understanding of the foreign exchange market and financial derivatives trading mechanisms; understand the operation of commercial banks, the central bank and other financial institutions; be familiar with the supply and demand of money; and has a deep understanding of the use of monetary policy. This course plays a fundamental role in the in-depth study of other courses in finance major. With the development of China's economic globalization, the acceleration of financial liberalization, and the innovation of science and technology, the financial industry has been continuously innovating. What's more, the influence of finance on the economy has been continuously enhanced, and the state's emphasis on economic regulation and financial supervision has been continuously strengthened. In this constantly changing environment, how to improve students' learning efficiency, how to train students' skills, and how to guide students to use financial thinking to analyze problems becomes the focus and difficulty of teaching.

## 2. Problems in Teaching and Assessment of the Finance Course

### 2.1 Problems in Teaching.

From the perspective of teaching, the problems existing in current traditional teaching are as follows:

First, the teaching content is not new. The textbooks of Finance are often biased towards theory, and the small amount of cases and data are not updated in time. If the teacher only relies on the teaching materials in the lecture and only teaches the contents of the teaching materials, the knowledge received by the students is relatively old and has little inspiring to the reality.

Second, teaching methods are inefficient. Under the traditional teaching, the theoretical content of the course makes the teacher and the student present a one-way communication relationship, that is, the teacher is the main speaker, and the students are passively accepted. Under such traditional teaching method, the class often lack innovation, democracy, and practicality. Students' ability to apply can't be better cultivated, and students still lack sensitivity to real world financial problems.

## **2.2 Problems in Assessment.**

Under current assessment method that is commonly used, the final exam accounts for a high proportion of the course grade, which ranges from 50% to 60%. It is often the main determinant of the student's course grade: if a student passes the final exam, there is a great possibility that he/she passes the assessment of the course. Among the remaining 50% to 40% of the grade, attendance usually has a certain proportion, so the proportion left for assignments and class participation is relatively low. This kind of assessment method makes students spend less effort, do less thinking, and take less part in class, but instead, be more inclined to rely on review before the final exam, trying to pass the course. In this case, the student is not motivated to exercise and the learning effect is poor.

## **3. Exploration on the Teaching and Assessment Methods**

### **3.1 Using Case Studies.**

The use of case studies can be a very effective class technique. It can solve the existing problems, such as content is outdated, teaching efficiency is low, the students' skills cannot be cultivated, and so on. But the effect depends on the writing or choosing of the case and the implementation of the case.

The content of the case should be rich and combined with theoretical knowledge. Facing the rich content of the case, students cannot get the answer at a glance when answering the case questions. Instead, they need to search for a large amount of information, make full thinking, and summarize the answers through group discussion. Combined with theoretical knowledge means the case should relate to the theory that students have learned in the class. In this way, when they are thinking about the corresponding questions, students realize the theoretical content they have learned. For example, when studying the content of the stock, the case of a listed company can be used to let the students understand the issuance of stock, stock pricing, P/E ratio, dividend payout ratio, and share splitting. The students can do relevant calculations and in-depth analysis, such as compare the P/E ratio of different industries and the P/E ratio of the same industry in different countries. Another example is that when introducing the content of interest rate, a case study of interest rate liberalization in China can be written into three parts: bank deposit and loan interest rate, SHIBOR, and bond market interest rate. Through answering case questions, students can figure out the process of interest rate liberalization; analyze some key factors in the process; compare the process in China with those in other countries; and think about questions such as "in order to better implement interest rate liberalization, what can be expected in the future". The difficulty of the case questions is better to be from easy to hard, which can inspire the students' thinking and avoid making students feel resistant to the questions. Most questions can be open-ended, so students can exercise their analytical skills better.

The general form of case study is as follows. Arrange the case after the students have learned the basic knowledge. Within a week, students analyze the cases in groups, answer case questions, which should be discussed in the group, so that there is a collision of thoughts within the group. This is the interaction among the group of students. By this form of discussion, students can learn how to cooperate as a team, how to express themselves when they have different opinions, and how to reach a consensus within a group. They can thus improve their collaboration skills. Each team will eventually hand in a case write-up and do presentation in class. After each group's presentation, there should be Q&A time, so that other groups with different ideas can express and communicate. This is another chance for collision of thinking.

### **3.2 Using Microsoft Excel.**

If finance only involves qualitative analysis but no quantitative analysis, it loses the value of application. Therefore, undergraduate Finance course should not lack the application of mathematics. For the basic and introductory course of finance, Microsoft Excel is the preferred tool.

Integrating Excel into course can help students intuitively understand financial concepts and link

financial theory with real-world applications to achieve the learning objectives of the course. Students who take this course will also have more confidence in their Excel skills and will have an advantage in the job market. On the one hand, students can learn Excel formulas for the fastest and most accurate calculations. If students start using Excel as early as possible, it can be easier for them to understand and process data and information. Today, data management and visualization are very important in finance and commerce. In their future work, when students encounter a large amount of data and information they can deal with it more easily. On the other hand, students can train their analytical skills by using Excel. Compared to the charts or conclusions directly obtained from the Internet, students using Excel know the data sources they are using, have their own assumptions and choose their own inputs, so that they can exercise the ability to think and analyze problems comprehensively. By adding Excel to teaching, the course will be more effective and students will be more actively involved in the class.

In order for students to use Excel effectively, a help session or some class time should be used to teach the students some basic Excel operation that they need to use. Some simple tasks can be set such as importing data, calculating with functions, making charts, using Solver, et cetera. Once students are familiar with these operations, they can use Excel in their assignments.

Excel can be effectively applied to multiple content of finance course, such as time value of money, calculation of interest rates, stock and bond valuation, financial derivatives and so on. For example, in the calculation of interest rates, students can practice using the “PV” function and “solver”; When analyzing data, students can search for the original data, import data into Excel, make charts, and analyze the data intuitively; In the study of financial derivatives, students can use VBA to calculate option values and so on. In order to familiarize students with the use of Excel, teaching should be accompanied by sufficient homework, so that students have the motivation to use more and practice more. In fact, Excel can also be combined with case study. For example, in the case of a listed company, students can use Excel to make pro forma financial statements, and estimate free cash flow in stock valuation. If paper and pen are used instead of Excel, students will have to recalculate when certain input is changed and the length of time in the valuation will be limited. In general, the use of Excel allows students to be exposed to more training. However, the prerequisite for achieving this goal is enough amount of individual and group assignments, so the design of homework is also an important work for teachers.

### **3.3 Using Internet Resources.**

Today, most people rely on the Internet when they need information. Because on Internet, people can find adequate and updated data and information. The Internet is also a very important source in the Finance course. If the instructors can make good use of Internet resources, the students' ability of searching data and information, their financial thinking and analytical skills will be greatly cultivated. The premise of making good use of Internet resources is that teachers should let students know where to find the data and information they want and how to use them. Internet resources can be used in following ways:

First, use timely updated information and data on the Internet. As mentioned earlier, innovations continue to emerge in the financial market, and financial regulation continues to strengthen. In this ever-changing environment, some contents of the textbooks are no longer applicable. If the students only learn according to the textbook, they will fail to understand the current situation, or to make expectation of future situation. For example, in January 2018, the People's Bank of China improved the statistical method of money supply, in which replaced the money market fund deposits with money market funds held by non-deposit institutions. This content is not covered in the M2 statistical methods described in many textbooks. Tasks can be arranged to let students go to the website of the People's Bank of China, click on survey statistics, and find statistics and notes on money supply. Students can also be asked to explain why the central bank wants to change the statistical methods of M2. And let students download data, calculate the growth rate of M1, M2 in recent years, then analyze the impact of changes in statistical methods on the growth rate of money supply. Students can also use the latest data on the Internet to analyze the current situation. For

example, when studying money market, students can find the interest rate of interbank lending on the website of the People's Bank of China and analyze the short-term interest rate trend of the market. When studying the foreign exchange market, students can go to the Yahoo Finance website to find the exchange rate of the RMB against several other currencies. Students can directly observe the trend of the exchange rate, and they can also calculate the appreciation and depreciation of a currency. This is much better than being given the data directly for calculation. Generally speaking, students can learn about current situations and trends by using timely updated data and information on the Internet. This kind of assignment will help students on their study of other courses and their work in the future.

Second, use Internet resources to test theory. The Finance course involves many theories, and theories involve assumptions. Often, in perfect world, the theory is established. The explanation of theory is always logical and is understandable by the students. However, the application of theory in reality is often not reflected in the textbooks. Use data to test theory, or to measure its degree of application in reality is important for the student learning the theory. This thing can be done before class and displayed in class by instructor. But in this way, students are still passively accepted. If students are asked to do it by themselves, they will be impressed with the thinking and analysis process. For example, after introducing the term structure of interest rates, a homework can be set to let students go to the China Bond Data website to find the yield curve of the government bonds, and analyze which theory is more suitable for China. When introducing the theory of exchange rate determination in the foreign exchange market part, students can also be asked to find data and analyze the applicability of absolute purchasing power parity. Students can be recommended to go to the Fred-economic Data website to find the ratio of the CPI index of two countries during a certain period of time, compare with the exchange rate of the two countries' currencies. Then analyze whether the currency of one country depreciates when the price level of that country rises, and the extent to which this conclusion applies in the short run and long run.

Finally, use information on the Internet as an extension of course content. Due to the limited time on class, the content taught by the teacher is also limited. The course content is not necessarily the full content that students need to know to understand a concept. While the information on the Internet can be used as an extension of the course content, allowing students to understand and analyze a problem more comprehensively. Teachers can arrange assignments, letting the students search for information on the internet, summarize the answers, and hand in reports. For example, when studying the central bank, the structure of People's Bank of China will be introduced in the class. However, for the students to better understand the relationship between the structure of the central bank and the implementation of monetary policy, students need to learn about the structure of other central banks in the world. Students can be recommended to go to the Fed's website to find the structure of the Fed system. The structure of the European Central Bank can be found on the ECB's website, and similar for other central banks. Students will browse through a lot of information when searching for similar questions. In the process of completing the task, the students not only expand their professional knowledge, but also improve the skill of searching and filtering information.

#### **4. Conclusions**

The characteristics of the Finance course itself determine the need for both theory and practical application in teaching and learning. But in reality, many instructors are still using traditional teaching and assessment methods. Therefore, this paper explores how to improve teaching and assessment methods, and gives three suggestions: using case studies, Microsoft Excel, and Internet resources. It is worth noting that these three ways are not separated, but instead, they can be used simultaneously. For example, in case studies, students can be asked to search for data and information on Internet for the problem sets. Students can also be asked to search the Internet for information in the homework, use Excel to calculate, analyze, and so on. The introduction of these methods can enrich the usual performance evaluation standards, and can better link theoretical knowledge with practical applications, thereby improving students' practical application skills and

enhancing students' competitiveness in the future workplace.

### **Acknowledgements**

This paper is supported by the young scholars' project of Education Science Planning of Heilongjiang Province (Grant No. GBD1317046), and the key project of Education Science Planning of Heilongjiang Province (Grant No. GJB1319072).

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