

# Research on e-Education in Teaching Practice

—A case of the "Security Analysis and Investment" course

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**Abstract**—This paper analyzes the shortcoming of traditional teaching methods of security analysis and investment course; based on the experience of years of teaching practices, innovates teaching methods with computer and network technology, such as multimedia teaching, software simulation teaching, experiment teaching, competition teaching and simulated trading teaching; then redesigns the evaluation system of security analysis and investment course; at last concludes the effect of these innovation.

**Keywords**—network; multimedia; security; teaching; innovation

## I. INTRODUCTION

With the rapid development of Chinese capital markets, the financial position of securities and securities markets has been upgraded constantly, which require the employees in securities industry not only to have solid theoretical foundation, and also to have rich practices. The course of security analysis and investment is currently a required course for the students who study modern economy and management.[1] In order to deepen students' understanding, and have some practical ability, it is necessary to spend time on securities technical analysis in the classroom, to introduce the securities investment analysis and operation software and related investment website, and to explore its application in the teaching process. [2-3]

## II. SHORTCOMING OF TRADITIONAL TEACHING METHODS

### A. *Emphasis on Theory more than Practice*

Traditional teaching of securities investment programs, spends much time on concepts and theories[4], only enable students to understand, and seldom ask students put the theory into practice. In fact, there is a great difference between the theory and the practice of securities investment, as in the teaching methods of the securities investment analysis, macroeconomic analysis, industry analysis and technical analysis, the theory is very abstract and difficult to understand, which need to combine the companies economics analysis with the technical analysis, it makes the lesson more vivid and imaged, then to improve students' interest in learning.

### B. *Isolation from Actual Aituation in China*

Some books of security analysis and investment introduce the basic theory and methods, but most of foreign theory and practice, though these can allow students to understand, but there are quite different with Chinese reality, and let the students have a sense of distance and difficult to understand.

### C. *Lack of Operational Case*

On the definition of stocks and bonds, or the analysis methods, the textbook is short of the advancing cases. Under the background of rapid development of Chinese stock market, with the change from the implementation of the non-tradable share reform to the public trade of options and stock index futures, the study in order to be able to keep up with the times, we need to research the realistic case taking place, and help students integrate into the society immediately.

## III. THE INNOVATIVE TEACHING METHODS WITH THE APPLICATION OF COMPUTER NETWORK TECHNOLOGY

### A. *Multimedia Teaching*

The teaching of security analysis and investment involves a lot of graphics, formulas, technical indicators, data such as the K -line portfolio theory, the gap theory[5], shape theory, wave theory, the traditional teaching methods such as writing the content on the blackboard is difficult for students understanding. While with multimedia teaching tools, synthetically applying sounds, images, text, and color, turning the abstract content into image, to reproduce the similar scene of teaching content, students have an immersive experience. For example, showing the pictures of stocks and bonds, the students can have an intuitive feeling for these financial investment instruments. The diagrams to show the interaction of price, volume, time and space vividly explains the securities investment theory. The method is intuitive, flexible, and timely, and it brings great convenience for security analysis and investment teaching.

Multimedia teaching is an auxiliary practice teaching model, although this teaching mode has a certain degree of vividness and intuitiveness[6], but generally speaking, this teaching mode is still a static model, relative to the the

diversity of the securities market and the practice requirements for the security analysis and investment teaching, this teaching mode still has a certain degree of limit.

### B. Software Simulation Teaching

Software simulation teaching mode refers to the teaching mode of connecting the computer in the classroom to the internet [7], downloading and installing the securities investment software, and using the projection equipment to display the real-time data of all kinds of securities to students. Software simulation teaching by using a variety of market securities analysis software, studying real-time quotes which are linked into the Stock Exchange by internet, is a dynamic observation for securities trading. This teaching mode integrates with the analysis of the macro economic situation, the economic policy changes, the relevant industrial development trends, business background, brokers information as well as technical index changes, the teacher can help students to judge the stock market trend and the trend of stocks and then to be confirmed in the subsequent teaching process.

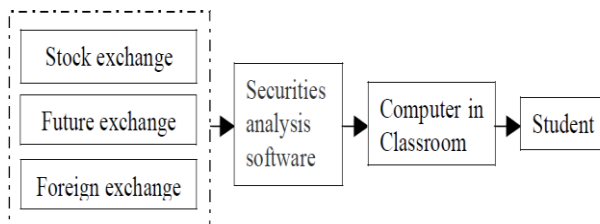


Figure 1. Software simulation teaching mode

Software simulation teaching requires teachers analyze securities trading in the classroom, and need teachers have higher comprehensive capability, not only theoretical knowledge, but also more abundant practical experience. For one thing, they should have a thorough understanding for the modern portfolio theory, updating their knowledge constantly, and adding up new ideas into the teaching process appropriately. So students can feel the current trends of the securities market development, and can be attracted to pay more attention to this course after class. For another, teachers need to strengthen practices. Apart from participating in securities investment actively, the teachers regularly study in the related departments in securities industry, learning about the latest progress of the securities industry, and to teach the fresh practice experiences to students.

### C. Experiment Teaching

As a discipline with strong practice and operability the experiment training is an indispensable part of security analysis and investment course. Taking advantage of network resource and securities trading software students can observe various securities investment tools, combine the theory and practice[8], analyze the market quotations and simulate the securities investment. Technical analysis is the unique analysis methods of stock quotes, but not easy to master since its content is much more and complex. Students should have an intimate knowledge of various technical analysis theories and methods, e.g. to find the typical Head-and-shoulders Top and M Top graphics, to

research the technical index (such as KDJ, RSI, MACD), etc. After the simulation training, students should record the situation of the training and what they have learned from the training as a part of experiment report.

### D. Competition Teaching

“Security analysis and Investment” is a strongly practical and operational course. The introduction of lasting and healthy competitive activities into classroom teaching can improve the teaching effect, turns the students from passively listening to actively actual combat exercising, enhance the study enthusiasm of the students and make them have a solid grasp of the theory and practice operation abilities of securities investment.

During the classroom teaching, the students grouped themselves freely, dividing into 5-7 groups. Each group of students select their group name, configured of virtual capital of 100, 000 Yuan RMB. Every week each student take turns in their groups to choose a stock and explain that at least three reasons, next week do settlement, and at the end of the semester do settlement of balances for each group with total amount of profit and loss, and record the usual results according to the ranking.

Competition teaching combines the teaching contents with students' practices, students feel what they learned in the classroom is very informative and useful, so they are absorbed in each class, hoping the teachers can teach more skills. Teachers do timely comment in the classroom, guiding the students to solve new problems found in the practical operation. And students can truly entered the stock market from the view of investors, feeling the price changes in the securities exchange in a simulated trading environment.[9]

But the competition rules also have defects. Due to the limited time of classroom teaching, class time is not necessarily on the Chinese stock exchange time of 9:30-11:30 a.m. and 1:00-3:00 p.m., and the teacher forces the student to close the positions during lessons and students are not able to choose the time to sell, which making "luck" components increase in the profit and loss settlement.

### E. Simulated Trading Teaching

It is divided into two steps for simulated practical operation of securities transactions. The teacher firstly introduces the entire transaction process in laboratory, from opening an account (shareholder accounts and funds accounts), entrusting, dealing, to settling and delivering, to enable students to master the operational processes of Securities Transactions. Then let the students make trading operation in the analog securities system. The analog system is a professional website for simulated dealing of stocks, such as [www.cfool.com](http://www.cfool.com); it also can be simulated stock market of the securities trading software, namely the students use the simulated trading functions of the securities trading software to register voluntarily and then to obtain simulated funds. In addition, various websites such as Sina, Net Ease, Stock Star also organized simulated stock contest. These analogs are at approximately the same with real stock trading process. The operation, transaction, price, volume and enterprise data are all real in the market, except for the funds. The

students are completely independent to choose trading time, and can choose more stocks to form portfolios.

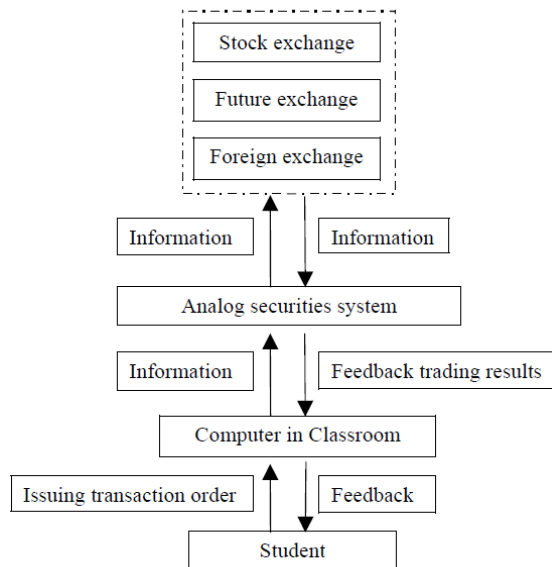


Figure 2. Simulated trading teaching

In technical analysis segment, Teachers can let the students freely choose the securities according to market quotation by their own analysis and make trading decisions combining with various technical analysis and technical indicators. Then they adjust their portfolios according to the judgment on investment and the performance of each security in the market, pay attention to collect information in the market, and analyze and evaluate their investment portfolios every day to modify their own investment portfolios with ample grounds. [10]

After completing the simulated transaction, the teacher makes a synthesized evaluation to the achievements for the investment in the period of time, and makes the evaluation report. Finally, the teacher should combine the teaching method and the simulated teaching together, in order to make the students truly feel the atmosphere of the securities market, broaden their horizon and improve their ability of integrating theory with practice. During this stage, teachers should request the students to experience transactions in the business hall of a securities company and consult the staff of securities department to introduce how to account, sale, delivery, settlement, etc.[11]

#### IV. THE EVALUATION SYSTEM DESIGN OF "SECURITY ANALYSIS AND INVESTMENT" COURSE

In the design process of teaching evaluation system for the course of "security analysis and investment", teachers should emphasize the students learning situation and knowledge mastery, adopting diversification of evaluation methods, in this way teachers can relatively accurately judge the students' study effect, and promote the innovation of the teaching and learning.

Therefore, the curriculum should adopt composite examination mode, namely the combination of usual evaluation and final exam, the combination of the quantitative indicators and non quantitative indicators, and the combination of professional evaluation and quality

assessment, to use a variety of evaluation methods for comprehensive evaluation of course grades. The examination mode makes different from the past single appraisal model of final written examination, and take "composite-whole process-diversity" evaluation system, as shown in figure 3.

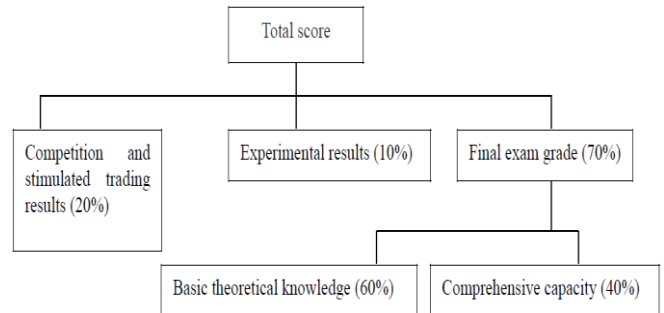


Figure 3. The evaluation system of "Security Analysis and Investment" course

The course of "Security Analysis and Investment" is closely related with the times, if students are only satisfied with the learning in the classroom, they hardly comprehend the true meaning of this course. With the rapidly development of market economy, the teaching effect hardly synchronize with the change of investment mode, while the securities investment software simulation support real market environment and make the students keep up with market changes, and help students to gain effective investment experience.

#### V. CONCLUSIONS

Through the above methods, teaching effects are just as followed:

##### A. Inspiring the Students' Learning Interest

By the improvement of traditional teaching way, students can make the integration of theoretical study and practice. Especially the multimedia teaching, simulation investment, sales practice, involving such as investment analysis, the opportunity and the skills, investment psychological change, investment philosophy, and so on, these all make theoretical knowledge of the textbook specification, thus deepening the understanding and grasp of theoretical knowledge. Some students even involved in stock investment reality after learning the course of the "Security Analysis and Investment".

##### B. Cultivating the Team Spirit

Through simulation and practice of investment in the securities sales department, students' active participation, contributing ideas and exert efforts, change the past situation that teachers and students, students and students part ways with each other after class, and greatly promote the feeling of love and helping each other.

##### C. Improving the Students' Ability of Practical Analysis

Through years of teaching reform exploration of securities investment analysis course, teachers put the emphasis of the course on the cultivation of student's actual analysis, summarize the theoretical framework, such as stock market analysis as well as a variety of reliable

patterns, main technical index analysis method, and carry on the practice into the classroom instruction, draw inferences about other cases from one instance, to make student deepen understanding and apply their knowledge into practices, greatly improving the students' interest in learning operation, unifies the securities investment theory and practice organically together, wins good acclaims and achieves better teaching effects.

#### D. *Cultivating Students' Health Investment Psychology*

By teachers and students' discussion and summary on the success or failure of the simulation trade, and professional managers lecture, students can understand the psychology of the sudden wealth, gambling and jealousy will cause the failure of the securities investment. At the same time, teachers should strengthen the education of students' morality and law, and guide students to have healthy and peaceful investment mentality in the process of securities investment, let them see the securities investment as a taste of life, and to happy invest.

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