

Exploration of Experimental Teaching Reform of Public Finance

XIAO Jing^{[a],*}

^[a]MBA School of Economics & Management, Changchun University of Science and Technology, Changchun, China.

*Corresponding author.

Received 12 April 2014; accepted 10 August 2014
Published online 26 September 2014

Abstract

Experimental teaching method is still in its infancy in the course of Public Finance, but the popularization of this method will become a trend. It is necessary to explore how to set up an experimental teaching in the course of Public Finance. The aim of this paper is to explore the path of experiment teaching reform in the course of public finance, to construct an integrated teaching model of combing lectures, practice and experiments together to cultivate students' practical ability and innovative thinking and to make students become applied talents. The paper describes the general understanding of experimental teaching. It gives the basic design of experimental teaching of public finance. It also put forward the suggestions to perfect experimental teaching mode.

Key words: Public finance; Teaching method; Experimental teaching

Xiao, J. (2014). Exploration of Experimental Teaching Reform of Public Finance. *Higher Education of Social Science*, 7(2), 62-66. Available from: URL: <http://www.cscanada.net/index.php/hess/article/view/5372>
DOI: <http://dx.doi.org/10.3968/5372>

INTRODUCTION

With the rapid development of fiscal information technology and the gradual implementation of the Government Fiscal Management Information System (GFMIS), the finance and taxation departments need more and more high quailed fiscal professionals. Specifically, they require students not only to master the basic

theories and basic knowledge of fiscal discipline, to be familiar with national policies, fiscal and tax policies and regulations, to understand the theoretical forefront and trend of public finance, but also require them to master access to knowledge, to use taxation theories to analyze and solve problems, to arm themselves with practice ability and the innovative spirit. In this context, teaching staff in the field of public finance should pay attention both to the basic theory teaching and to strengthen their experimental teaching. Experimental teaching is an important part of the whole teaching process as well as theory teaching, and has the same important position in quality education and cultivation of high-quality talents with innovative spirit and practical ability.

1. A GENERAL UNDERSTANDING OF THE EXPERIMENTAL TEACHING

Talents are the foundation of constructing an innovation-oriented country, training talents, especially cultivating innovative talents, is a basic, strategic and forward-looking work. As to personnel training, Chinese students lack practical ability, so cultivating students' practice ability and enhancing their level of innovation is an important task in China's high education. Chinese government advocated experimental teaching in the "2007—2003 Action Plan for Invigorating Education" approved by the State Council and the Ministry of education in China, whose main objective is to promote colleges and universities to strengthen their students' practical ability and innovative ability, improve quality of higher education. Experimental teaching method is one of the main teaching methods in natural science, such as physics and chemistry. Students observe, experience and find the creation process of knowledge through active participation in experiments, and they understand knowledge and master ways of thinking in practice. Since 2004, more and more Chinese college and universities began to strengthen

experimental teaching in natural science in high education. In the first list, the Ministry of Education announced a batch of national experimental teaching demonstration centers, involving fields only in natural science, that is, physical, chemical, biological and electronic, but none in social science. So in recent years, more and more educators realize that experimental teaching method is also suitable for social science. But for most fiscal majors, experimental teaching method is not used widely. In the course of accounting, experiments was designed to help students understand the enterprise accounting practice; in the course of statistics, experiments was designed to help students master specific use of statistical software, but in the course of public finance, experimental teaching was rarely used.

Experimental teaching practice mainly involves two tasks, that is, laboratory construction and the experimental teaching. Experiments in the course of public finance can be distinguished into the following four categories according to their characteristics: first, inspection experiments. They are mainly carried out to test and proof the conclusion derived from theory teaching in the related curriculum. Second, skill experiments. They are mainly used to practice skills and methods for some courses in the operation training. Third, simulation experiments. They are mainly used in a number of fiscal management practices, such as the budget accounting, budgeting plan and government procurement. These experiments simulate actual operating processes in laboratories. Fourth, innovative experiments. They are carried out to get innovative conclusion through continuous experiments under the guidance of theoretical knowledge system.

For economic and management majors, four types of experiments are all involved, and many experiments are mixed type, that is, they are the synthesis of two kinds or more types of experiment. For example, econometrics of experiments not only test what has learned in the classroom but also are a kind of skill training of economic analysis. In addition, ERP sand table, as a kind of simulation experiments, is both simulation of enterprise management process and a design process of innovative management thought and method, as well as a verification process. Process simulation experiments of budgeting managements and the accounting cycle process experiments belong to simulation of government and enterprises' financial management process experiment, and also a kind of skill experiment. The difference between experiments in the field of finance and economics and natural science is reflected in their different essential attribute. Finance and economics mainly belong to the system of arts and their professional related experiments come from the economic and social practice. Therefore, it is important that experimental teaching in the fiscal specialty should be integrated with social practice. As to public finance, the experimental teaching should emphasize on combining experiments with social fiscal

practice, condensing social fiscal practice in the process of experiment in laboratories to improve students' practical ability.

2. BASIC DESIGN OF EXPERIMENTAL TEACHING OF PUBLIC FINANCE

2.1 Basic Principles

In the experimental teaching of public finance, the matter of special importance is to cultivate learners' practical ability, adaptive ability, innovative ability and comprehensive qualities. In order to reflect this basic idea, experimental teaching of public finance should adhere to the following principles:

2.1.1 Adapt Experimental Teaching to Fiscal Practice

Different from theoretical teaching content, the experimental teaching content has to adapt to the practice of fiscal reform in China, so students can master fiscal management knowledge better.

2.1.2 Regard Experimental Teaching and Theoretical Teaching as Equal Importance

In the aspects of class hour arrangement, training of teachers, curriculum construction, there should be a overall planning of experiment teaching and theory teaching, as well as a rational division of labor between the two.

2.1.3 Interact Experimental Teaching With Subject Construction

We should include the experimental teaching of public finance in the scope of subject construction, clarify its important role, update the teaching content and system through the course construction, and at the same time, promote the development of course construction by experimental teaching research.

2.1.4 Combine Experimental Teaching With Off-Campus Internship

Experiments are done in laboratories. It helps students understand the basic theories and professional knowledge, and furthermore enable them set up perceptual understanding of the working environment or business process in their career in the future. Because lab space is limited, in order to consolidate the results of experimental teaching, staying in school and society close, the construction of off-campus experimental stations is so important in the process of developing students' thinking and enhancing innovative capability.

2.2 Training Target and Curriculum System

The basic premise of organizing experimental teaching is to clarify the professional properties of training target and curriculum system. Next step is to design experimental course suitable for students' knowledge system and for social demand for talents according to its professional characteristics.

2.2.1 Training Target

Main objective of public finance education is to cultivate all-round developed professional talents: They should be shaped to application-oriented, circulative, open-minded” senior specialized talents armed with solid professional knowledge, strong business capacity, high comprehensive qualities, rich business skills, and organization and management ability suitable for working in government organs, enterprises, colleges and universities, scientific research institutions engaged in related work.

2.2.2 Curriculum System

Public finance is a part of the applied to the economic subject due to curriculum system. However, from the history of fiscal subject, due to other disciplines from infiltrating into finance gradually, public finance also transplants principles and methods from other disciplines, which can be used to study fiscal problems and explain fiscal phenomenon. Therefore, theoretical foundation turns modern public finance into an interdisciplinary subject combining economics, political science, management science, and sociology of law in one. So offering experimental teaching reflects management feature of public finance. Finance always relates to government, who uses fiscal revenue and expenditure to achieve economic and social management functions. In this sense, public finance can be defined as a kind of economic management of a government. At present, the traditional public management has been or is being replaced by the “new public management”. Based on the theories of new public management, a government is essentially a special industrial sector. Starting from the angle of management, in accordance with the management paradigm, management system, behavior, organization and decision-making theories should be concluded in fiscal finance. Therefore, it is reasonable to add some experiments about management in the curriculum system, such as experiments about government budget management, procurement management, debt management, taxation management, management of social security and the government accounting management.

2.3 Curriculum Design of Experimental Teaching of Public Finance

2.3.1 Basic Contents of Experiments of Public Finance

Basic content of experiments is defined referring to the professional attributes of educational objectives and course system of public finance. The types of experiments include simulation experiment and inspection experiment. At present, the simulation experiment can be done in the fields of government budgeting process, government procurement practice, taxation inspection, the government accounting. Every simulation experiment can be divided into several parts. For example, experiment of government budgeting process can be divided into three sub-experiments, including governmental sectors’ budgeting plan, management system of public revenue

and management system of public expenditure. In the experiment of governmental sectors’ budgeting plan, students can play different roles, such as central government or budgeting sectors, which enables them to understand and master basic design process of each sector’s budgeting. Management system of public revenue can be checked by internal control mechanism, or by the three of local tax bureaus, banks and national treasury to ensure efficient and effective control of tax payment. And sub-experiment about management system of fiscal expenditure has the basic organization mode, which is supported by network, based on specialized sector’s budgeting, and put all the financial revenue and expenditure into the single treasury account. The three parts are sub-experiments independently and can be linked to form a comprehensive experiment.

Teachers can group the whole class and assign different financial roles to each group, such as treasury, budgeting unit and government procurement sector. In the process of teaching, teachers can assign different tasks to each group and exchange information among groups. When an inspection is finished, the teacher can arrange role switching, so that different groups can have comprehensive fiscal practical exercises. With the comprehensive experimental project and sub-experimental practice, students can understand the theories learning from classroom and understand the profound influence of budgeting management system reform in China.

2.3.2 The Basic Content of Experimental Teaching of Public Finance

Experimental teaching of public finance can be divided into four levels according to the curriculum system: First, experimental course of computer knowledge (provided by the relevant department), which mainly aims to make the students master the basic skills of operating computers and software. Second, experimental course of basic accounting knowledge (provided by the relevant department), which enables the students to master software for enterprise accounting and budgeting accounting. Third, experimental course of public finance, which focuses on the use of government budgeting, public expenditure management, government procurement and other kinds of software. Fourth, the comprehensive fiscal experimental course, which helps students to practice the main content and processes in the actual fiscal work, so that they can be familiar with the actual process of financial management. In the above four levels of study, the comprehensive fiscal experimental course is the most complex and demanding. It involves widely fiscal information content, such as digital processing of fiscal business, network of fiscal communication, automation of fiscal office and intelligent of fiscal decision. After progressive training through the above four levels of experimental courses, students will become professional talents who are good at integrating theories in practice, and arm with excellent practical ability and innovative capacity.

3. SUGGESTIONS ON IMPROVING EXPERIMENTAL TEACHING MODE IN PUBLIC FINANCE

Application of experimental teaching in financial and economic disciplines is still at the initial stage. The author has interviewed 20 professors who have had experimental courses of public finance during 2010 to 2013 school years in 5 universities in Changchun, Jilin province and collected some suggestions on how to improve the experimental teaching mode in practice as follows:

3.1 Innovate Experimental Teaching Mode in the Course of Public Finance

There are three types of experimental teaching of public finance: first, traditional heuristic teaching with the teacher as the subject. It includes lecturers, demonstration and visiting, and is mainly applied in single experimental teaching. To complete this kind of experiment well, students should preview the related knowledge before class. Second, cooperative teaching with both the teacher and students as equal subjects. It includes cooperative teaching, case study, and motivation teaching. It is mainly used in the inspection experimental teaching. The teacher usually arranges experimental content, and students analyze the experimental results and write experimental report. Third, student-oriented approach. It includes discussion, scene simulation teaching method etc., and is mainly used in the comprehensive experimental teaching, usually by the teacher assigning comprehensive experimental content, and students choosing experimental subject and designing experiment scheme on their own, and getting experimental results by using open laboratories. It is a kind of experimental teaching that can combine experimental task with scientific research, and help improve students' autonomous learning and their innovative capacity. This kind of teaching is based on the open laboratories, encourage students to choose their interested experimental projects, to discover and solve problems, and at the same time to cultivate students to analyze and solve problems and innovate their thinking through creating experimental situation. In open experimental teaching method, students are regarded as the main subjects, and their teacher only plays the role of guidance and evaluation.

3.2 Improve Platform Construction of Experimental Teaching of Public Finance

3.2.1 Perfect Hardware Platform of Experimental Teaching of Public Finance

Experimental teaching of public finance needs local area network, so the laboratory network should be planned and designed rationally, and allocated with optimal hardware to ensure students carry out the experiment efficiently and effectively.

3.2.2 Optimize Software Platform of Experimental Teaching of Public Finance

At present, many universities have procured software to fiscal experiments. The most widely used kinds of fiscal management software are the New Grand Public Financial Management Software and the Lambeth Teaching Software. The New Grand Public Financial Management Software is designed for the fiscal sectors in the government, not specifically for teaching. So, when used in teaching, it has many shortcomings, such as its network version can not meet multiple people at the same time, its software modules are so complicated and insufficient and so on. The Lambeth Software overcomes the defects in the former. It is a kind of specialized teaching software. Students can operate it on-line in the laboratory, or install its stand-alone version in their personal computers to preview and review. However, Lambeth Software also has shortcomings, such as the independence of each module and unshared data. Therefore, when choosing software, several things should be considered, such as if it is advanced, easy to use, sharing and so on. Furthermore, the administrative education department and universities should support, encourage teachers to participate in the research and development of experimental teaching software themselves.

At present, the experimental teaching content in public finance is designed according to specific modules included in the software procured by colleges and universities. Simply, software companies develop experimental teaching software by integrating what software is being used in practice in the related fiscal units with the existing software, and sell it to the universities that have corresponding experimental courses. Therefore, the content and quality of the existing operational software restrict the effect of experimental teaching. In the future, it will be necessary to develop the relevant software by joining efforts of both software companies and professional teachers who are in charge of teaching according to the nature of curriculum of public finance and to practical needs. At the same time, the design of experimental content should not only refer to the operation process listed in the fiscal management software, but also focus on explanation or discussion on why management or reform like this, on theoretical reason behind practice. So the course will not deviate from the experimental curriculum system, and furthermore helps strengthen students' basic theoretical knowledge and operational ability.

3.2.3 Create Auxiliary Environment for Experimental Teaching of Public Finance

Establishment of auxiliary environment for experimental teaching of public finance includes: First, establish website for experimental teaching, so that experiment related teaching outline, the experimental data, and operation manuals can be found on site. It will be

convenient for students to carry out experiments with full understanding. Second, establish open experimental environment, so that students can perform experiments on other computers outside the laboratory. Third, set up evaluation method for experiments in order to carry out a comprehensive, fair evaluation on students' effort. Fourth, choose teaching textbook of high quality. The experimental teaching should adhere to the advanced, science and adaptive textbook, which can be ready made ones or be manuscripts written by teachers themselves based on the actual experiments in the course.

3.3 Construct of Teaching Team of Fiscal Experiments

The teaching team is the key factor in experimental teaching. Experimental teaching of public finance requires teachers in charge to have a mine of theoretical knowledge, and strong practical capacity. There are two sources of experienced experimental teachers: one is to select some from the existing teachers and send them to the actual operating departments for exercises, the other is to invite part-time teachers who originally work in actual business sectors and have very excellent work performance.

In addition, it should well coordinate the relation between teaching staff and support personnel. Experiment teaching staff are professional teachers, who have rich professional knowledge; on the other hand, the auxiliary teaching staff is teachers who can help the former with many other problems, especially problems about computer. Experimental teaching staff and auxiliary teaching staff are dependant on each other in experimental teaching, so they should strengthen communication, mutual understanding, and mutual coordination to solve some problems existing in the experimental teaching together.

3.4 Strengthen Experience Exchanges of Experimental Teaching of Public Finance in Domestic Universities

Universities and colleges involved in experimental teaching of public finance should strengthen program cooperation and learn from each other to improve teaching effect. The Committee of National University of Finance Teaching and Research initiated by the Central University of Finance and Economics is a good example. It is an organization that has provided the theoretical discussion and communication of experience. It has made good use

of its advantages, combined with domestic universities, strengthened financial experimental teaching exchanges. More and more similar cooperation should be carried out to push on experiments related software development, move forward teaching material compilation, and jointly promote development of finance experimental teaching nationally.

CONCLUSION

Based on the general understanding of the experimental teaching, the paper points out that experimental teaching of public finance should combine with social practice. Specifically, experimental teaching of public finance should combine closely with financial practice, which is condensing financial practically operation in the process of experiment in the laboratory to improve students' practical ability. Next, the paper designs the principles that experimental teaching of public finance should follow, training objectives and course system, in which two curriculum design elements are explained, that is, core content of experiments of public finance and core content of experimental teaching of public finance. Finally, there are four suggestions to perfect finance experimental teaching mode: first, perfect hardware platform of experimental teaching of public finance. Second, optimize software platform for experimental teaching of public finance. Third, focus on the construction of teaching team of public finance experiments. Fourth, strengthen experience exchange of experimental teaching in domestic universities.

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