

On Design and Implementation of Converse and Dynamic Curriculum

Take the Accounting Informationization, the excellent course in Hainan Province for example

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Abstract—curriculum directly affects teaching results. Currently, since the applied graduates fail to adapt to the working life quickly, this paper firstly proposes the concept of “converse and dynamic curriculum design”, which means design the teaching goals based on the job requirements and in turn, determining the teaching content. In implementation, first select teaching materials and financial software, and then teach in the mode of progressing four links one by one.

Keywords converse and dynamic; curriculum design; implementation

Applied talents training is aimed to cultivate students with both solid theoretical knowledge and strong practical ability. However, the survey tells that it takes a long time for most new graduates to adapt to the working life, who are poor in practical ability. One of the main reasons is that curriculum design and implementation are irrational.

In view of this and according to the applied talents training objective, Haikou College of Economics proposes the concept of “converse and dynamic curriculum for the course of Accounting Informationization. Namely, set the teaching objective in light with the requirements for financial jobs, accordingly determine the curriculum content and teaching process (form), and then select the teaching materials and financial software based on the teaching content so as to ensure that all the students are qualified enough for the post when they are graduated; meanwhile, give full play to the teachers’ and students’ initiatives during the class and cultivate the students’ habit of learning, thus laying a foundation for their development after leaving college. Following the concept, we have designed the course of Accounting Informationization and implement it for the undergraduate students in the department of financial management, and it proves rather successful. Therefore, the course of Accounting Informationization was awarded as the excellent course of Haikou College of Economics in 2011 and the excellent course of Hainan province in 2012.

I. THE CONTENT DESIGN OF CONVERSE AND DYNAMIC CURRICULUM

A. Identify the course objective according to the job requirements

In order to make our students more practical and qualified, the Accounting Informationization teachers in our department have conducted surveys on the size, structure and production and management characteristics of several enterprises from various industries, especially of their finance department, learning that there are many posts concerned with finance, such as cashier, AR&AP accountant, tax accountant, cost accountant, revenue accountant, general ledger accountant and finance manager. Through discussion with some graduates and financial managers and teachers with rich experience in financial business and management, we have further confirmed the specific duties of finance jobs. See Table 1.

Financial Posts	Duties(Requirements)
Cashier	Be in charge of receivables and payables, the cash in treasury, securities and checks, the cash deposit and settlement, registration cash and bank journal; prepare monthly bank reconciliation sheet, timely check with general ledger accountant and find out the causes of outstanding items, etc.
Cost accountant	Audit all kinds of costs and expenditures according to the company’s financial system; monitor cost and urge all departments to save costs; be responsible for treatment processing of various fixed assets and the staff’s salaries; prepare accounting documents according to the actual costs.
AR&AP accountant	Check and manage the receivables & payables and provide timely accounting treatment.

Revenue accountant	Be responsible for the sales auditing and accounting treatment of revenues.
Tax accountant	Be responsible for tax calculation, accounting treatment and final settlement; find out the reasons for the data gap between monthly tax report and general ledger report and propose corresponding measures for improvement; be in charge of tax planning and reasonable tax avoidance.
General ledger accountant	Be responsible for auditing accounting documents and keeping accounts; timely issue all kinds of accurate accounting statements and conduct analysis on them; summarize the governmental statistics reports; assist the finance manager with daily accounting.
Finance manager	Well communicate with all departments; be responsible for auditing accounting documents, financial sheet and tax report and guaranteeing the accuracy; analyze the financial sheet and cost report and then propose measures for cost control and improvement; prepare yearly budgets, supervise its implementation and analyze the causes for final difference; be in charge of the capital budget, capital utilization and distribution; make out financial management systems and regulations and supervise its implementation; coordinate the relationships between the company and relevant governmental departments, such as tax bureau, industrial and commercial bureau, banks and customs houses.

After discussion with professor and expert committees, our department summarizes the job requirements in Table 1 as technical skills, interpersonal skills and conceptual skills. Technical skill refers to the ability of using information technology to complete financial work in accordance with the work program, work methods and work standards of financial posts. Interpersonal skill means how to handle the relationships in relate to the financial work, including how to communicate and coordinate with the superior and the subordinate, the tax authorities, banks and customers. Conceptual skills is the ability of reasonably adjusting financial resources and making out financial management system based on business conditions, and identifying problems in a timely manner and also putting forward suggestions.

Different job requires different technical skills, interpersonal skills, and conceptual skills. Since the financial manager must be equipped with skills of all posts, then posts,

except for the finance manager, are suitable for all graduates. Technical skills are the basic requirement for all posts, so it is the basic teaching objectives of this course. Interpersonal skill is very important for all posts and also one of the needed skills for each job. The conceptual skill is the indispensable ability for a financial manager and also the ability for graduates to seek sustainable development. Therefore, interpersonal skills and conceptual skills are the teaching objectives of this course.

Considering the characteristics of the integrated applied undergraduates, our department has determined the teaching objective of "Accounting Informationization". Namely, first, equip the students with technical skills, which requires the students to master the basic theory and practice of accounting information and be qualified for accounting when graduated; second, develop interpersonal skills and enhance the awareness of communication skills; third, cultivate the students' conceptual ability, problem- analyzing and - solving ability and habit of learning, so as to lay the foundation for their career development and the acquirement of certified accountant or even the certified public accountants^②

B. Identify the teaching content based on the teaching objectives

We have identified the teaching content for the course of Accounting Informationization according to the defined technical, interpersonal and conceptual skills.

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Technical skills required for accounting position . See Table 2

Table2: Technical skills required for each financial post

Positions	Technical skills
Cashier	Know how to query the daily book in general ledger system, register the check, type-in the bank statement, prepare the bank reconciliation statements and then conduct contrastive analysis with the manual reconciliation
Cost accountant	Master the skills of how to process the cost and accounting documents in the general ledger system; know how to operate the fixed assets management system and payroll management system, and analyze relevant operational principles and then draw inferences from so as to master the development principles and operational processes of all financial software.
AR&AP accountant	Master the operation process and methods of initialize system, daily business processing and final processing in receivables & payables system, and analyze the operation principles and then draw inferences from so as to master the development principles and operational

	processes of all software.
Revenues accountant	Know how to set auxiliary accounting program for revenues in the ledger system and timely conduct accounting treatment for real incomes.
Tax accountant	Accurately calculate the taxes in a legal way and timely conduct tax-related accounting treatment in the general ledger system.
General ledger accountant	Master the operation process and methods of preparing the voucher entry, voucher auditing, keeping accounts and UFO sheets and know how to compare it with the manual operation in general ledger system, and analyze the advantage of accounting Informationization.
Financial Manager	Know how to establish accounts, add operators and authorize in the administration system management; the introduction and output of set of books; the system maintenance; the processes and methods of analyzing the enterprise's financial statements, and comparing it with the account building and statements preparation of manual account.

In light with the corresponding technical skills for each post in Table 1 and Table 2, we have arranged the teaching contents, including installation and maintenance of financial software, system administration, general ledger system, payroll management system, fixed assets management system, receivables management system, payables management system, and the UFO reporting system.

2) *Determine the teaching contents on the basis of technical and conceptual skills*

In order to develop the students' interpersonal skills, teachers inform them through words and deeds in the classroom so that students gain a perceptual knowledge of the interpersonal skills and its importance. Then, in training program, seven students form a team in which each member holds a post and they should collaborate with each other to complete a set of account. Grouping is designed to emphasize their sense of cooperation and team awareness. Finally, they do practice with the guidance of teachers and learn to deal with interpersonal relationships.

In order to improve the conceptual ability, we have set theory chapters and the theory section of each chapter. Unit practices and extension practices at the end of each unit are conducive to train students' ability of applying knowledge to solve practical problems and the ability of comprehensively and systematically analyzing problems and also to form a global consciousness.

Since all financial staff must follow Management Approach of Computerized Accounting, Specification on the Basic Functions of Accounting Software, and Specification

on Computerized Accounting, we will incorporate them into our teaching content. In addition, considering that different enterprises and financial posts require professional certificates, such as certificates of accounting professional, assistant accountant, accountant, and certified public accountant, and certified tax agents, we will include them into the teaching contents of accounting Informationization so as to meet the students' requirements for getting relevant certificates.

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II. IMPLEMENTATION OF THE CONVERSE AND DYNAMIC CURRICULUM

A. *Select textbook*

During the teaching process of Accounting Informationization, it is found that the existing teaching materials cannot meet the requirements of such financial posts. Some textbooks are all about theory, so students cannot learn and master the technical skills required by the job; some others are basically description of the financial software without any theoretical introduction, so the students only master how to operate some specific software while knowing nothing about other financial software, finally making it difficult for them to form the ability of independent analysis and thinking. To meet the capacity requirements by financial posts, the textbook for Accounting Informationization should include both theoretical foundation and the introduction of the operational processes and extension practice as well as some exercises concerning the computerized accounting certificate exams.

The lectures of Accounting Informationization in our faculty worked together with teachers from other universities & D personnel from financial software companies and then finance managers to develop a new module of <New Accounting Informationization>④, which all include nine chapters. Chapter 1 is about theory, elaborating the concept, features, development, basic functions and data processing flow of accounting Informationization so that the students can master relevant concepts, basic theory, basic content, learning methods of the course and its relationships with other courses. Chapter II to Chapter VIII are about practices, respectively demonstrating knowledge corresponding with different posts. In this part, the first section of each chapter are all about theory, briefly introducing the concept and basic content of this knowledge module and its relationships with other modules so that students can grasp the basic concepts and features of each knowledge module and as well as the relationships between different knowledge modules .

Through the first theory-based chapter and the theory section of each practice chapters, the students can grasp the professional theoretical knowledge of Accounting Informationization, which lays a solid theoretical basis for

later practice chapters and also helps to cultivate the students' ability of further learning and analyzing problems. From Chapter II to Chapter VIII, the second sections of each chapter describe the operation steps of the software, thus enabling the students to master the specific operational procedures and methods of each post. At the end of each practice chapter, there are cases for unit training, which are targeted at different specific posts. Chapter IX is all extension practices to improve the students' comprehensive capacity, including many real cases based on the accounting documents of the enterprises.

The case practice requires students to complete the task from account building to the preparation and analysis of financial statements based on their learned knowledge. This chapter is set mainly to consolidate the learned knowledge on one hand and to train students' problems-analyzing and -solving ability by applying the learned operation methods and principles on the other hand, thus finally the students comprehending the rest by analogy. At the end of each chapter from Chapter I to Chapter VIII, there are objective exercises, such as the single choice and multiple choices so as to meet the students' need for acquiring the primary computerized accounting certificate. The textbook was issued by Publishing House of Electronics Industry across the country in August 2009 and received recognition by some companies and teachers of accounting Informationization from other universities. The textbook has been printed for three times and obtained the Third Prize of the third session of outstanding achievements in scientific research of Hainan colleges in 2011.

B. Select software

The course of Accounting Informationization is set to teach the students how to deal with the enterprise's economic business with financial software, so financial software is one of the key factors to achieve the teaching goal of this course.

Training talents to serve the local economy is one of the tasks of the application-oriented colleges. Therefore, in the selection of financial software, we have not only considered knowledge modules' design and the software used by the majority of local enterprises and governmental departments, but also the universality of the software so that the students remain competent for similar jobs in other areas. According to our survey, we found that most financial offices in Hainan province adopt the software produced by UFIDA Software Co. Ltd, which is a large software company in China, so we have also purchased UFIDA software and spared money for their upgrading, thus allowing the students to master the latest financial software in the market.

C. Four steps linking progressing

In the teaching process, we emphasize on giving full play to the students' initiative and cultivating their ability of independent thinking and analysis, and try hard to teach them fishing methods instead of giving them only fish. The teaching process includes four links.

The first link is the teaching process integrating both theory and practice. Teachers first explain the theory and introduce the specific content and operation method of the posts by linking the general ledger system with the specific requirements of the job, allowing the students to understand the operating principles and reflect on the development principles of each business operation. On this basis, students are guided to master the concrete operation steps of software and inspired to think about operation principles and the difference with manual account, so the students can develop the ability of independent thinking and analysis, and finally master all the different financial software. For example, while logging into the general ledger system, one is allowed to operate the subsystem only by firstly entering the operator's code or name, password, the name and date of the set of books. In class, teachers will inspire the students to think about what if the operator forgets a password or the password is disclosed, and then students will be impressed by that the operators are not allowed to enter into the general ledger system to complete the daily tasks if he forgets his password and other people might illegally modify or delete the financial data if the password is disclosed, thus bringing lots of harms to the operators themselves and the enterprises as well as the society. a range of hazards. In this way, students learn that an accountant must be careful and rigorous enough and also how important the integrity is to financial staffs.

Considering students' demand for acquiring primary computerized accounting certificate, we have set questions for students in the form of multiple choices and True or False in each chapter, so as to realize the integration of course and certificate exams.

The second link is cognitive training. In the practice weeks of the first semester of sophomore year, teachers of Accounting Informationization organize students to visit the enterprises and observe the work processes, such as the production, sales and purchasing, allowing students to know the origin of the original documents like sales invoices and purchase invoices and how these documents are delivered to the financial sectors. Therefore, having understood the relationships between finance and other business, the students develop more interests in learning professional knowledge and strengthen their understanding of the actual financial work.

In the practice weeks of the second semester of sophomore year, the students will be led to observe how the staff from different financial sectors use financial software to process business and hold talks with corporate financial members, thus allowing students to obtain a more comprehensive picture of the duties and business norms of different finance posts, the process of applying financial software to deal with the corporate financial matters and the security differences between the financial data and manual account.

The third link is comprehensive training, which is arranged in the semester before the internship. In the training, seven students form a group, holding different posts from cashier to general ledger accountant. The first step is to complete manual account of the two-month business data of

the corporate. The second step is to process the established manual account by financial software. After completing each account set, the group members are advised to exchange their roles of posts to finish the same set of account until the members act all roles, so that the students better learn the duties of different posts and cultivate their comprehensive ability.

The fourth link is internships. Since our students are endowed with integrated and comprehensive knowledge and are qualified for a wide range of posts after graduation, we have conducted cooperation with enterprises from different industries, such as industrial enterprises, commodity circulation enterprises and service enterprise, and arrange students to intern with those enterprises. During internships, students can gain a better idea about the content, characteristics, responsibilities, capacity requirements and literacy of the financial work in various industries as well as understand various practical business problems, finally developing the comprehensive implementing competency, decision-making ability, creativity and global awareness required for financial work. At the same time, students can find out their own inadequacies, thereby enhancing their sense of urgency and improving their enthusiasm for study. Through internships, students would form a scientific view toward job hunting and choose suitable jobs based on the business needs and their own ability.

ACKNOWLEDGMENT

This paper is one of the staged achievements of the 2012 scientific research project of Education Department of Hainan Province “Study on Practical Based Undergraduate Financial Management Textbook” (project number: Hjsk2012-76); one of the staged achievements of 2012 Hainan Education Science “12th Five-Year” Planning Project “Empirical Study on Applied Undergraduate Financial Management Teaching Reforms in Colleges and Universities” (project number: QJI12514).

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