

“Think-Pair-Share” mode drives the reform of “Student-Centered” professional education——Taking the education reform of accounting specialty as an example

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Abstract: The Outcomes-based Education(OBE) education reform is a scientific and effective way to improve the quality of talent training, and the implementation of the concept of “Student-Centered” is the key to the OBE education reform. Therefore, this is the key to promote the education reform, how to implement the concept of “Student-Centered” in training objectives, graduation requirements, curriculum system, classroom teaching and examination evaluation. Taking the accounting major as an example, this paper uses the Think-Pair-Share method to practice the reform in the aspects of training objectives and graduation requirements, curriculum system, classroom teaching and assessment, and finally realize “Student-Centered”. “Think-Pair-Share” is an activity process to stimulate group thinking, discussion and sharing. It is groundbreaking to apply this model to professional education reform. This achievement has important guiding and reference significance for the reform practice of other majors.

Key words: Think-Pair-Share mode; Student-centered; Professional education reform; Accounting Major

1 Introduction

This paper applies this western classroom teaching method Think-Pair-Share to the specific implementation of “Student-Centered” professional construction. In 2014, the school launched the professional evaluation of “Student-Centered”. Based on the understanding of the educational concept of “Student-Centered”, the accounting specialty grasped the five important links of training objectives and graduation requirements, curriculum system, classroom teaching and assessment and evaluation, and incorporated all stakeholders such as employers, students and teachers into the professional education reform system, The content of each link is completed by using “Think-Pair-Share” to dig out the real needs of all stakeholders, and finally realize that each link is really permeated with the idea of “Student-Centered”, rather than the slogan floating on the surface. Moreover, this model is also a rigorous professional education quality evaluation system, which receives real-time information from the society and feedback from students and teachers. In December 2016, the first mock exam of Beijing’s professional assessment was received in our accounting department, and the first and second place in the quality evaluation and professional characteristics were obtained. This model can ensure the actual implementation of the concept of “Student-Centered” and can be extended to other professional education reforms. Taking accounting major as an example, this paper expounds the steps and methods of applying this model to professional education reform.

Economic globalization promotes the internationalization and integration of higher education. China has become a signatory member of the “Washington Agreement” in 2013, marking that China’s higher engineering education has entered the world stage. How to improve the quality of talent training? The practice of higher education reform in European and American developed countries in recent 50 years shows that it is a scientific, effective and feasible path to implement the concept of “Student-Centered”, implement OBE education and create a quality culture of continuous improvement. The achievement oriented professional education reform with the concept of “Student-Centered” has defined the new idea of undergraduate education and teaching development of “determining training objectives according to social needs, formulating graduation standards according to objectives, and constructing curriculum system according to standards”. Among them, the training objectives and graduation requirements must reflect the students’ ability required by the society. The curriculum system, classroom teaching and assessment and evaluation constitute the three supports of “Student-Centered”. The training objectives, graduation requirements, curriculum system, classroom teaching and assessment and evaluation become the core elements of the implementation of “Student-Centered”. Therefore, how to leverage these core elements is the key to promote the “Student-Centered” reform.

Since 2014, the third party congress of Beijing Institute of petrochemical technology has comprehensively promoted the “Student-Centered” education and teaching reform, and achieved rich results. Among them, the accounting major uses “Think-Pair-Share” as a lever to pry the “Student-Centered” professional education reform, and runs through the “Think-Pair-Share” thought in the whole process of professional education reform, which has typical promotion value and significance for the real realization of “Student-Centered”.

2 Introduction to “Think-Pair-Share” mode

The “Think-Pair-Share” model was proposed by Frank Lyman and his colleagues in Maryland in 1981. It is named for its three stages of “independent-thinking, group- discussion and class-sharing”. This model encourages students to learn to think independently on a task (or problem) and form their own views; Then discuss and communicate with the same group to draw consistent or more comprehensive or deeper conclusions; Finally, the students in each group will share their views with the whole class, form a wider discussion and supplement, and draw more positive opinions and conclusions. Therefore, the “Think-Pair-Share” model is an effective form of classroom activities, which is currently limited to classroom teaching. The accounting major applies this model to the training objectives and graduation requirements, the revision of curriculum system, classroom teaching and other work, which effectively promotes the professional

construction of “Student-Centered” in the accounting major.

3 Re-sorting of training objectives and graduation requirements

The accounting major adopts the “Think-Pair-Share” idea to find the deviation between the training objectives of the accounting major and the actual needs of the society, revise the training objectives, and determine the graduation requirements according to the training objectives.

(1) Throw a problem

Design the following questions closely related to the training of accounting professionals and conduct interviews.

- ① What abilities are important for the career development and promotion of accounting graduates within five years of graduation?
- ② At present, what kind of accounting talents are most lacking in the enterprise accounting department? What abilities are lacking?
- ③ What abilities do enterprises value when recruiting undergraduate graduates majoring in accounting?
- ④ What are the abilities that undergraduate accounting graduates should have but lack at present?

(2) Think stage

In order to collect the real needs of the society for accounting professionals, the interview was conducted face-to-face. The interviewees were determined to be the chief financial officer, operation Department Manager, ACCA trainer, firm project manager, human resources department manager and other personnel of enterprises, firms and social accounting professional training institutions.

According to the interview records, the keywords with high frequency in the four questions were selected, from which the professional ability and non-professional ability were extracted, and the Likert scale was used to design the questionnaire. The items of professional ability and non-professional ability in the questionnaire are shown in Table 1.

Table 1. Items of professional competence and non professional competence

Non professional ability	Professional ability
interpersonal communication	Accounting ability
Teamwork	Internal operation data analysis
Psychological quality	Financial data analysis
Independent study	Financial software operation
Environmental adaptation	Application of data analysis tools and methods
Foreign language communication	Information collection and retrieval capability
Proficient in word operation	
Excel proficient operation	
PPT skilled operation	

(3) Pair stage

Each ability in the questionnaire includes two aspects: the degree of social demand and the actual achievement of graduates. The survey is aimed at large and medium-sized accounting firms and enterprises that accept accounting students from colleges and universities for internship or employment. This survey objects are managers at different levels of enterprises, mainly involving project managers, audit managers, financial managers, managers of operation department and supervisors of human resources department. It involves the management personnel of 9 accounting firms, and the rest are enterprises.

By analyzing the gap between the social demand of accounting professional ability and the actual achievement degree, the gap between students’ internal operation data analysis ability is the largest, up to 77.1%; Financial data analysis ability was the second, with a gap of 68.6%; Thirdly, for the use of data analysis tools and methods, information collection and retrieval ability, financial software operation ability, the gap between accounting ability is the smallest.

From the perspective of social needs, the social needs and actual achievement of non-professional abilities of accounting graduates are analyzed. Most of the non-professional abilities are higher than the professional abilities, among which the ability needs of interpersonal communication, teamwork and self-learning reach 100%.

(4) Share stage

Through the questionnaire survey results of pair stage and teachers’ teaching experience, it is concluded that there are the following problems in the cultivation of accounting professional ability: Pay more attention to accounting than analysis; Focus on accounting standards, and belittle tool application; Emphasis on knowledge, and belittle the connection.

Training objectives and graduation requirements for undergraduates majoring in accounting. In terms of professional ability, we should continue to teach students professional knowledge points and cultivate students’ accounting ability under the constraints of accounting standards and other norms. At the same time, we should incorporate the ability training of internal and external operation, financial data analysis and data tool application into the new training objectives, and emphasize the “business process”, It is required that the current teaching of knowledge points should be changed from fragmentation to systematization, so as to improve the application ability of students’ professional knowledge. At the same time, we should strengthen the undergraduate education of accounting major and cultivate non-

professional abilities, such as interpersonal communication, teamwork and self-learning ability.

4 Re carding of curriculum system

Combined with the gap between the curriculum system in the current training program and the new training objectives and graduation requirements, rebuild the curriculum system to support the new training objectives and graduation requirements.

(1)Think stage

Based on the summary of the course content, teaching methods and assessment methods, and in combination with the new training objectives and graduation requirements, teachers, which teach the professional course, are invited to consider the supporting role of the course for the training objectives and graduation requirements, how to describe the supporting role of the professional course as “what students should learn” and find the gap in the course teaching.

Conduct a survey among fresh graduates and ask them to think about and answer the most impressive contents and reasons of professional courses, the most useless professional courses and the contents lacking in professional courses.

(2)Pare stage

Through teaching and research activities, teachers and students’ discussion and fresh graduates’ discussion, the problems and improvement direction in the curriculum system are all discussed in this stage, and reaches an agreement on the following aspects:

① The curriculum system of accounting specialty has matured, which plays an important supporting role in training objectives and graduation requirements. The top priority of curriculum reform is classroom design, which aims to improve students’ ability to participate in the classroom and have applied knowledge.

② The cultivation of non-professional abilities such as interpersonal communication, oral and written expression, self-learning and office software application is not realized by setting up a corresponding course, but by stimulating students to actively participate in each class. The teaching objectives of each course should be broadened, in addition to the traditional knowledge teaching and knowledge application, The cultivation of humanistic spirit should be one of the teaching objectives of the course.

(3)Share stage

The current training program framework of Accounting Specialty (Figure 1) can be divided into six categories: Logical thinking ability, humanistic quality, international vision, economic awareness, management thinking and professional practice ability. Therefore, the scope of the training program has covered the breadth of training objectives and graduation requirements.

Comparing the discussion feedback of teachers and students, the key to the gap between the training objectives, graduation requirements and the actual training effect lies in the link of classroom teaching design and implementation. How to improve students’ learning effect through classroom design is the key to improve the quality of education.

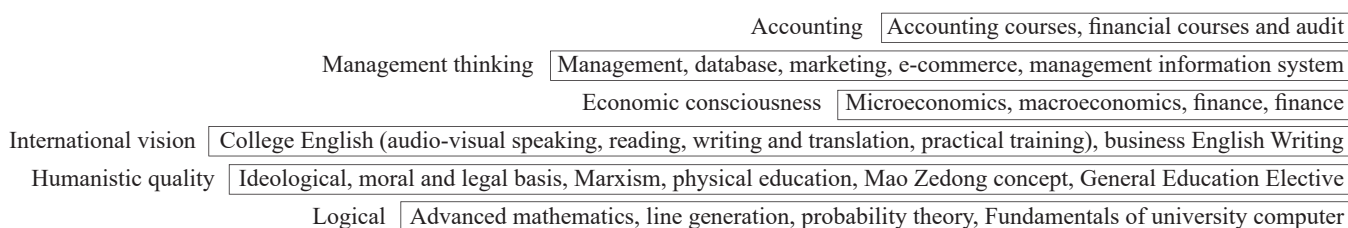


Figure 1 framework of accounting professional training program

5 Classroom teaching and assessment

(1)Curriculum teaching objectives

The course teaching objectives need to include many aspects of knowledge, ability and quality to support the realization of graduation requirements. The setting of teaching objectives of a course needs to consider how to influence students from the spiritual level for a long time. Through the course, students not only have previous knowledge, application and combination with real life, but also include the spiritual level, such as the dimension of humanistic care (understanding themselves and others), promote students to generate new values and interests, and affect what students care about, Learn how to learn, and the impact will be long-term. Therefore, the scope of the goal needs to be expanded.

(2)Classroom design

Traditional classroom teaching mostly focuses on the way of “teachers speak and students listen”, resulting in the result of “insufficient class hours, endless and incomprehensible”. At present, our professional teachers begin to try to adopt the bookshelf structure. The model is derived from the University of Minnesota, court of kart Smith. Specifically, 45 minutes of a class is divided into different stages: Advance organizing - 10-12 minutes of teacher lecture - 3-4 minutes of turn to partner - 10-12 minutes of teacher lecture - 3-4 minutes of turn to partner - 10-12 minutes of teacher lecture - 5-6 minutes of course summary. It can be seen that each class consists of three stages: There are 2-3 knowledge points arranged before the beginning of the course, the conclusion of the course and the middle of the course. In the process of explaining the knowledge points, the “Think-Pair-Share” method is adopted to give students time to think, let students learn to solve problems through discussion, and complete the teaching of knowledge through students’ participation.

The “Think-Pair-Share” teaching process can achieve four objectives ① Stimulate students’ independent thinking and cultivate students’ critical thinking ability to actively analyze problems and look at problems objectively and comprehensively; ② Encourage students to express their views and cultivate students’ ability of language expression and communication with others; ③ Cultivate students’ ability to filter information and summarize through students’ brainstorming and discussion; ④ Through students’ active participation, students’ deep and lasting understanding of knowledge and memory is achieved.

At the same time, the design of “Think-Pair-Share” teaching activity requires teachers to divide the knowledge points of this course and put the knowledge that can be arranged for students’ self-study outside the classroom. Through the small test in class, we can understand the mastery of students and promote students to take the initiative to study independently outside class, so as to gradually cultivate students’ self-study ability.

(3) Course assessment

The teaching design of “Think-Pair-Share” requires to improve the proportion of process evaluation, and students’ curriculum learning harvest is presented in many aspects, which is no longer limited to fragmented knowledge points. The reform of assessment methods makes students’ focus no longer limited to final grades, but pay attention to enjoying the fun of thinking and teamwork in the learning process, changing their thinking of analyzing and solving problems, and then realize active learning. The question type of the final examination has changed from the examination of changing knowledge points to the examination of reflecting application ability and analysis ability.

Taking cost accounting as an example, since September 2015, the assessment method for three consecutive semesters is “50% usual score + 50% final score”. The usual score includes three parts: initial test, classroom discussion, extracurricular case production and explanation:

- ① Class discussion: 4-5 people in each group shall be divided into groups, and all groups shall participate in class discussion.
- ② Initial test: Mainly investigate the arrangement of students’ self-study of extracurricular knowledge, and cultivate students’ autonomous learning ability. According to the assessment, most students can learn independently and gradually cultivate the habit of autonomous learning.
- ③ Case score: All groups can complete the cases according to the quality and quantity. Some students can not only complete the cases, but also objectively, professionally and deeply evaluate the cases of other groups in combination with classroom knowledge.
- ④ Final papers: The final test paper changes the traditional test paper mode in the past, adopts the scene evaluation method, sets specific situations, and the students put the learned knowledge into the future to make decisions, so as to investigate the students’ ability to analyze and solve problems by using the learned knowledge.

Comparing the test paper score with the total score, from the perspective of the comprehensive scores of each semester, the proportion of excellent students is declining, and the proportion of failed students is also declining, which shows that the usual assessment is important to students and breaks the situation of “one test determines all”. However, because most students have been used to the learning habit of final sprint, the effectiveness of classroom reform needs both teachers’ guidance and students’ active participation. The reform is not achieved overnight. Students’ learning habits need to be constantly changed through the reform of teaching methods and assessment methods.

To sum up, “Think-Pair-Share” is an activity process to stimulate group thinking, discussion and sharing. This mode is used to leverage the “Student-Centered” reform of accounting major. From training objectives and graduation requirements, curriculum system to classroom teaching and assessment, through “Think-Pair-Share”, we can realize continuous thinking, discussion and practice, and finally achieve The educational reform of “Student-Centered” can truly improve the quality of education.

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