

Research on Teaching Reform of Cost Accounting Course Experiment Under the OBE Concept

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Abstract: Against the backdrop of the advancement of the New Liberal Arts initiative and the comprehensive digital transformation of the accounting industry, the traditional Cost Accounting Course Experiment is plagued by ambiguous teaching orientation, disjointed curriculum content from industrial practices, rigid teaching modes and monotonous assessment methods. These problems make it difficult to meet market demands for interdisciplinary professional talents in cost accounting. Outcome-Based Education (OBE) centers on students' ultimate learning outcomes. Guided by the OBE concept and combined with the practical and applied attributes of the Cost Accounting Course Experiment, this paper sorts out the existing problems in current course teaching and constructs a brand-new teaching system featuring outcome orientation, student centrality, and dynamic iteration. Specific reform measures are proposed from five aspects: restructuring teaching objectives, upgrading curriculum content, innovating teaching forms, optimizing assessment mechanisms and improving teaching support systems. Teaching practice has verified that this reform model can effectively improve students' practical skills in cost accounting, foster their thinking of cost analysis and control, and realize precise alignment among course teaching, talent cultivation standards and enterprise job requirements. It also provides references for the teaching reform of similar practical accounting courses.

Keywords: OBE concept; Cost accounting course experiment; Teaching reform; Application-oriented talents; Practical teaching

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1. Introduction

The rapid development of the digital economy has driven continuous updates to corporate financial management models. Enterprises now set higher requirements for accounting talents, who are expected to be interdisciplinary professionals competent in accounting, analysis, control and decision-making, rather than mere traditional bookkeepers. As a core position in corporate financial systems, cost accountants are mainly responsible for cost accounting, data analysis, cost control and supporting business decision-making, serving as a key guarantee for enterprises to implement refined management and reduce costs while improving efficiency.

Outcome-Based Education (OBE) is an advanced educational concept initially applied to engineering education reform. Its core logic lies in designing teaching activities in reverse according to students' expected learning outcomes, implementing teaching tasks throughout the whole process, and continuously optimizing teaching quality based on evaluation feedback. Breaking the limitations of traditional teaching, OBE is well-suited for the innovation of practical courses for application-oriented majors ^[1].

Given the above context, this paper integrates the OBE concept into the whole teaching process of the Cost Accounting Course Experiment. It reconstructs the curriculum framework in accordance with industrial job standards and professional talent cultivation goals to address the pain points of traditional experimental teaching. The research aims to shift the course focus from pure knowledge imparting to integrated competency training and professional ethics cultivation, and deliver high-quality application-oriented cost accounting talents that adapt to the requirements of the new era.

2. Core connotation of OBE concept and its adaptability to curriculum reform

2.1. Core connotation of OBE concept

Originating from the reform of engineering education in the United States, the OBE concept has been widely adopted in the teaching of various application-oriented majors and become a vital guiding ideology for the development of the New Liberal Arts and New Engineering. It thoroughly reforms the traditional teaching mode where teachers dominate teaching arrangements and learning scopes. OBE adheres to three core principles: reverse design, forward implementation and continuous improvement.

Reverse design means defining students' expected learning outcomes on the basis of industrial job requirements, academic graduation criteria and overall talent cultivation objectives, and then setting curriculum objectives, teaching content, teaching methods and assessment standards accordingly. Overall, OBE abandons the teacher-centered, textbook-centered and classroom-centered model of traditional teaching, and takes the achievement of students' competency as the ultimate goal of teaching work ^[2].

2.2. Adaptability analysis of curriculum reform

Cost Accounting Course Experiment features strong practicality, close connection with professional posts and comprehensive knowledge coverage. The fundamental goal of this course is not to make students mechanically memorize theoretical formulas, but to equip them with the ability to independently complete corporate cost accounting, cost analysis and cost control work. This is highly consistent with the core idea of OBE, namely outcome orientation and competency-based education.

Firstly, cost accounting posts have clear requirements for practitioners' operational skills, problem-solving abilities and comprehensive analytical capabilities. The OBE concept can accurately define students' learning outcomes based on job demands and solve the problems of ambiguous teaching objectives and deviated cultivation orientation in traditional teaching. Secondly, practical courses emphasize hands-on operation and competency application. The whole-process and multi-dimensional evaluation system of OBE can replace the traditional result-oriented assessment, so as to objectively examine students' learning effects and competency growth. Thirdly, OBE highlights continuous optimization.

3. Existing problems in traditional teaching of cost accounting course experiment

Based on years of frontline teaching experience and student surveys, most universities still follow the traditional teaching mode for Cost Accounting Course Experiment and have not established a systematic and competency-oriented teaching system. The main problems are summarized as follows:

3.1. Ambiguous teaching orientation and lack of outcome orientation

The teaching objectives of traditional experimental courses are attached to theoretical knowledge points, merely focusing on helping students master cost accounting methods and be familiar with bookkeeping procedures. Teaching activities take “knowledge mastery and bookkeeping proficiency” as the core requirement, without formulating hierarchical and quantifiable competency objectives in line with academic graduation standards and corporate job requirements^[3].

Higher-level capabilities such as cost analysis, cost control, risk assessment and financial decision-making are largely ignored. Consequently, students can only apply formulas mechanically and finish simulated bookkeeping tasks, and struggle to handle complex real-world cost accounting issues in enterprises. This eventually results in a disconnection between classroom learning and on-the-job practice, as well as a mismatch between curriculum training and job demands.

3.2. Outdated curriculum content detached from industrial development

The experimental content has not been updated for a long time, mostly adopting standardized simulated cases from supporting textbooks. Most cases are simplified static accounting scenarios of manufacturing enterprises, featuring single business types, outdated data and streamlined workflows.

On the one hand, teaching content concentrates on basic accounting methods such as product costing, job costing and process costing, while lacking core post contents including cost forecasting, cost control, data analysis and scheme optimization. On the other hand, the course fails to integrate mainstream industrial tools such as digital financial software and intelligent accounting systems, falling behind the real scenarios of industry-finance integration and digital cost management in modern enterprises. Graduates therefore find it hard to adapt to digital accounting posts.

3.3. Rigid teaching methods and insufficient students’ subjective initiative

Most experimental classrooms adopt the indoctrination teaching mode of “teacher demonstration plus student imitation”. The fixed teaching process consists of teachers explaining operational steps, students completing training tasks by following templates, and submitting experimental reports. In this teacher-dominated classroom, students learn passively with little room for independent thinking, exploration and error correction^[4].

All training tasks have fixed standard answers, and there is a shortage of open-ended and exploratory exercises, which fails to mobilize students’ learning enthusiasm. Long-term passive learning makes students overly dependent on reference templates and leads to rigid thinking. Their abilities to independently analyze and solve complex business problems are weak, and creative thinking and professional literacy cannot be effectively cultivated.

3.4. Monotonous assessment methods with deficiencies in scientificity and comprehensiveness

Course assessment has long been result-oriented. The quality of experimental reports mainly determines final grades, the accuracy of bookkeeping, and the results of final practical examinations. Little attention is

paid to students' performance during the training process, including learning attitude, teamwork, problem exploration and innovative thinking.

This "emphasis on results over processes" evaluation mode cannot truly reflect students' learning effects and competency improvement, nor can it identify deficiencies in teaching. Moreover, assessment results are not applied to teaching optimization, and there is no linkage mechanism between evaluation feedback and teaching improvement, hindering the sustainable promotion of teaching quality.

3.5. Inadequate teachers and practical training conditions

Some teachers are engaged in theoretical teaching for a long time and lack practical working experience in corporate cost accounting. They have limited understanding of emerging cost management models, digital accounting tools and real business scenarios in the industry. When delivering lectures, they can only conduct standardized teaching based on textbooks and cannot answer questions or expand knowledge combined with actual job requirements.

Furthermore, on-campus practical training platforms have relatively single functions, mostly supporting only basic bookkeeping simulation while lacking modules for intelligent cost accounting and industry-finance integrated training. Off-campus school-enterprise cooperative training bases are underutilized, so students have few opportunities to access real corporate business, which restricts the quality of practical teaching.

4. Implementation paths of teaching reform under the OBE concept

To address the above problems of traditional teaching, this paper constructs a comprehensive and systematic teaching reform system from five dimensions including teaching objectives, curriculum content, teaching modes, assessment evaluation and supporting mechanisms, following the core logic of OBE: reverse design, forward implementation and continuous improvement, and combining the competency standards of cost accounting posts and professional talent cultivation goals.

4.1. Restructure teaching objectives in reverse and clarify learning outcomes

In accordance with the reverse design principle of OBE, hierarchical, quantifiable and implementable curriculum objectives are formulated based on corporate job demands, academic graduation criteria and overall talent cultivation goals, which are divided into three levels: basic competencies, comprehensive competencies and professional literacy.

4.1.1. Basic competency objectives

Students are required to proficiently apply costing methods including product costing, job costing, process costing and classification costing. They should independently complete the collection and allocation of various expense elements such as material costs, labor costs and manufacturing overheads, and accurately finish basic work including filling out cost vouchers, registering account books and preparing cost statements, so as to consolidate core accounting competencies for professional posts.

4.1.2. Comprehensive competency objectives

Students shall select appropriate costing methods according to the production and operation characteristics of

enterprises. They need to be capable of verifying cost data, analyzing cost variances and identifying potential risks, independently compiling cost analysis reports, mastering basic cost control and optimization methods, and handling complex cost accounting business.

4.1.3. Professional literacy objectives

Cultivate students' rigorous, meticulous, objective and impartial professional ethics for accounting. Help them establish the thinking of refined cost management and industry-finance integration, as well as a strong sense of responsibility. Improve their abilities in teamwork, independent learning, and innovation to meet the employment requirements of interdisciplinary accounting posts in enterprises.

4.2. Optimize curriculum content system to align with job requirements

Guided by preset learning outcomes, the curriculum content breaks the limitations of textbooks and combines real job scenarios in enterprises to build a three-module content system: basic practical operation, comprehensive application and advanced expansion, realizing precise connection between courses and professional posts ^[5].

First, consolidate the basic practical operation module. Retain core accounting training content, optimize traditional standardized cases, and eliminate outdated and overly simple business scenarios.

Second, add the comprehensive application module. In response to the higher competency requirements of professional posts, introduce training contents such as cost variance analysis, cost budget preparation, design of cost control schemes and business decision analysis. Build a full-process training framework of "accounting – analysis – control – decision-making", break the limitation that traditional courses focus merely on accounting, and help students develop a complete cost management thinking system.

Third, expand the digital practical training module. Keeping up with the digital transformation of the accounting industry, introduce intelligent cost accounting systems, advanced data analysis based on Excel, financial big data tools, and other content. Set up practical tasks such as digital cost statistics, intelligent bookkeeping verification and data visual analysis to improve students' digital operational capabilities.

4.3. Innovate diversified teaching modes and highlight students' principal position

Centering on the achievement of students' competencies, the traditional indoctrination teaching mode is abandoned. A diversified teaching mode combining online-offline blended learning, case-driven teaching, project-based training and inquiry-based learning is established to transform students from passive recipients to active explorers.

Firstly, build an online-offline blended teaching framework. Relying on online teaching platforms, upload practical operation videos, industrial cases, tutorials of digital tools and interpretations of financial policies to support students' pre-class preview and after-class review.

Secondly, implement project-driven teaching. Take real corporate cost management projects as the carrier, and divide curriculum training tasks into multiple complete on-the-job projects, such as product costing for manufacturing enterprises, monthly corporate cost analysis and design of cost optimization schemes. Students act as corporate employees to complete the whole workflow and enhance professional competencies through project practice.

Finally, carry out group inquiry-based learning. For complex comprehensive training tasks, adopt group cooperation. Group members divide work to complete data sorting, bookkeeping, analysis and judgment,

as well as report writing, and explore solutions to practical problems independently. Teachers only play the role of facilitators, tutors and evaluators. Open-ended practical tasks are also arranged to encourage students to propose innovative cost control ideas based on corporate realities, so as to cultivate students' abilities of independent inquiry, teamwork and innovation.

4.4. Establish diversified assessment system and build continuous improvement mechanism

Based on the continuous improvement concept of OBE, the single result-oriented assessment is replaced by a three-in-one comprehensive assessment system consisting of process evaluation, result evaluation and competency achievement evaluation, which ensures full coverage of assessment, scientific evaluation and regular improvement. The total course score is calculated as 60% for process performance and 40% for final performance ^[6].

Process evaluation covers pre-class preview, in-class practical performance, project progress, teamwork effectiveness, training journal records and problem exploration results. Detailed scoring standards are formulated to record students' learning status throughout the process, mainly assessing their learning attitude, operational proficiency and independent inquiry ability.

Result evaluation is conducted through final comprehensive practical examinations, the quality of experimental reports and the completeness of project outcomes, focusing on examining students' mastery of core knowledge and skills as well as comprehensive application capabilities.

On this basis, competency achievement evaluation is added. In reference to the three levels of curriculum objectives, students' competency achievement is quantified through academic situation analysis, student self-evaluation, peer evaluation, teacher evaluation and comments from enterprise tutors to form analysis reports on curriculum objective achievement.

4.5. Improve teaching support system to consolidate reform foundation

To guarantee the smooth implementation of teaching reform, supporting facilities are improved from three aspects: teaching staff, practical training platforms and school-enterprise cooperation.

First, strengthen the construction of double-qualified teachers. Encourage teachers to take temporary positions in enterprises and participate in actual cost management projects. Organize regular training on OBE concepts and digital teaching skills. Invite industrial financial experts and senior cost accountants from enterprises to deliver lectures and guide practical training on campus, so as to comprehensively improve teachers' practical teaching abilities.

Second, upgrade on-campus practical training platforms. Introduce intelligent industry-finance integrated systems and cost management simulation platforms to build digital practical training scenarios and meet students' demands for digital skill training.

Third, deepen school-enterprise collaboration. Co-build off-campus practical training bases, introduce real corporate business data and training projects, and arrange students for off-campus internships to realize seamless connection between on-campus training and on-the-job practice in enterprises.

5. Effects of teaching reform

The above reform plans have been applied to the teaching pilot of the Cost Accounting Course Experiment

for the classes of 2022 and 2024 majoring in Accounting in our university. The reform effects are verified through multiple dimensions, including academic surveys, score comparison, post follow-up, and results of skill competitions, and remarkable achievements have been achieved.

Firstly, students' comprehensive professional competencies have been greatly improved. Compared with students taught by traditional methods, students in pilot classes show higher accuracy in basic bookkeeping and better quality of completed training projects. They are no longer limited to mechanical bookkeeping, but are able to independently handle complex cost accounting business, conduct cost analysis and control, and form systematic cost management thinking.

Secondly, students' learning initiative has been significantly enhanced. Diversified teaching modes and open-ended practical tasks fully arouse students' enthusiasm for independent learning and active exploration. Classroom participation rate, task completion rate, and the number of students conducting voluntary after-class review have increased significantly.

Thirdly, talent cultivation quality has been continuously optimized. Students in pilot classes achieve better results in accounting skill competitions and higher pass rates of the Primary Accounting Qualification Examination. After graduation, they show strong job adaptability and competitiveness, and are highly recognized by cooperative enterprises.

6. Conclusion and prospect

Under the background of the digital transformation of accounting and the deepening of application-oriented talent cultivation, integrating the OBE concept into the teaching reform of the Cost Accounting Course Experiment can effectively solve the core problems of traditional courses, such as ambiguous teaching objectives, outdated content, rigid modes, one-sided assessment and disconnection between learning and practice.

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