

Construction and Effectiveness Evaluation of the Practical Teaching System for Finance and Accounting in Universities under the Guidance of Industry-Education Integration

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Abstract: With the transformation of the economic environment and the iteration of industry technologies, the ability requirements for finance and accounting professionals have shifted from traditional accounting skills to comprehensive decision support and value management capabilities. Currently, the finance and accounting education model in universities faces the challenge of being disconnected from practical demands, urgently necessitating the construction of a practical teaching system centered on the concept of industry-education integration. Based on educational ecology and competency-based theory, this research systematically elucidates the theoretical foundation, construction path, and evaluation mechanism of the finance and accounting practical teaching system under the guidance of industry-education integration. By analyzing the ability structure and teaching characteristics of the finance and accounting discipline, it proposes a systematic model with "objectives-content-methods-conditions" as elements, designs ability-oriented teaching content restructuring strategies and resource coordination mechanisms, and establishes a multidimensional evaluation index system covering basic abilities, professional skills, and comprehensive qualities. The research constructs an evidence-based feedback improvement loop, aiming to promote the transformation of finance and accounting practical teaching from knowledge transmission to ability generation, providing a theoretical reference and practical framework for the reform of finance and accounting education in universities.

Key Words: Industry-Education Integration; Finance and Accounting Education; Practical Teaching System; Ability Structure; Effectiveness Evaluation; Feedback Mechanism

Introduction

As a key field bridging theoretical knowledge and practical operation, the quality of finance and accounting education directly impacts the professional competence and industry adaptability of specialized talent. With the increasing complexity of business models and the advancement of information technology, the traditional lecture-based teaching model can no longer meet the demands for cultivating finance and accounting professionals with comprehensive judgment capabilities and strategic vision. Industry-education integration, as a core concept in deepening educational reform, provides a crucial pathway for restructuring the practical teaching system in finance and accounting by promoting deep coupling between the educational system and industrial resources. Starting from the ability characteristics and teaching principles of the finance and accounting discipline, this study systematically explores the theoretical foundation, construction logic, and evaluation methods of the practical teaching system. It aims to break through the barriers between theoretical teaching and practical application, establish a teaching paradigm aligned with the developmental patterns of finance and accounting talent, and holds significant theoretical value and practical relevance for enhancing the quality of finance and accounting education and strengthening the applied nature of the discipline.

1. Theoretical Analysis of the Finance and Accounting Teaching System under the Concept of Industry-Education Integration

1.1 The Conceptual Evolution and Educational Significance of Industry-Education Integration

The concept of industry-education integration has undergone a significant evolutionary process. Its initial form focused on institutional-level collaboration, manifested as superficial interactions where

industries provided internship opportunities and universities supplied graduates. With the maturation of the knowledge economy and shifts in innovation paradigms, this concept has evolved into a deep coupling between the educational system and the industrial system at the levels of strategic planning, resource allocation, and cultural values. The essence of this coupling lies in constructing a symbiotic ecosystem where knowledge flow, capability development, and value creation advance in synergy.

From the perspective of educational philosophy, industry-education integration holds profound educational significance. It fundamentally challenges the traditional teaching model centered on knowledge transmission, advocating instead for the cultivation of students' professional judgment and problem-solving abilities within complex, authentic, or highly simulated business contexts. The introduction of industrial elements injects dynamism, uncertainty, and forward-looking characteristics into teaching activities, transforming the learning process from passive reception of established knowledge to active construction of contextualized solutions. For disciplines such as finance and accounting, which heavily rely on professional judgment and are closely linked to business practices, industry-education integration provides a core logic for reconstructing the teaching paradigm, turning the gap between abstract principles and concrete applications into a ladder for capability development^[1].

1.2 The Ability Structure and Practical Teaching Characteristics of the Finance and Accounting Discipline

The ability structure of the finance and accounting discipline demonstrates clear complexity and hierarchy. The foundational level encompasses technical operational competencies such as the rigorous application of accounting standards, account processing, and financial statement preparation. The intermediate level evolves into management support capabilities, including data analysis, risk assessment, internal control design, and performance evaluation, requiring practitioners to transform financial data into decision-relevant information. The highest level manifests as strategic financial planning, identification of value drivers, and global resource integration capabilities, which demand going beyond accounting records to deeply understand business logic and value creation mechanisms.

This pyramidal ability structure profoundly defines the intrinsic characteristics of practical teaching in finance and accounting. The core feature of practical teaching lies in its strong context-dependency. The teaching field must extend from enclosed classrooms to simulated or authentic business process chains, immersing learners in the complete life cycle of economic operations. The teaching content needs to shift from standardized regulatory provisions toward addressing unstructured, ambiguous business problems, training students to exercise professional judgment and ethical trade-offs within regulatory constraints. The key to teaching methodology resides in creating learning environments that allow trial and error, reflection, and iteration, enabling students to internalize knowledge and develop stable professional competence through handling incomplete information, balancing multiple objectives, and responding to unexpected situations.

1.3 Core Elements and Internal Logic of the Practical Teaching System

Constructing a rigorous practical teaching system for finance and accounting requires the systematic integration of four core elements. The objective element defines the final output of the system in terms of talent competency specifications, which should center on integrated professional competence and clarify comprehensive requirements for knowledge, skills, and literacy. The content element represents the concrete manifestation of these objectives; it must be modularized, project-based, and sequenced according to authentic finance and accounting workflows and corporate value management activities, ensuring the typicality and challenge of learning tasks. The methodological element serves as the key mechanism for achieving competency transformation; it comprehensively employs various approaches such as case studies, business simulations, project-based learning, and digital tools, aiming to stimulate students' cognitive engagement, collaborative inquiry, and active construction. The conditional support element forms the foundational underpinning for the system's operation, including faculty with dual expertise in theory and practice, advanced technological platforms and software environments, continuously updated case libraries and data resources, as well as an organisational culture and evaluation system that foster innovation.

These elements do not exist in isolation but are interconnected through a rigorous internal logic to form an organic whole. The objective element occupies a guiding role, determining the fundamental direction of content selection, method design, and resource allocation. The content element serves as

the substantive vehicle for achieving the objectives; its design and organization must be closely aligned with competency requirements. The methodological element, as the most dynamic mediating variable, directly influences whether the content can be efficiently transformed into students' intrinsic abilities and qualities. The conditional support element functions as the foundation of the system, providing stable and sustainable support for the effective operation of all the aforementioned elements. The various elements form a relationship of continuous information feedback and dynamic adjustment, collectively constituting a dynamic closed-loop system centered on capability development and value creation, endowed with self-optimizing capacity. This systematic understanding lays a solid theoretical foundation for the scientific construction and effective evaluation of the practical teaching system in finance and accounting^[2].

2. Construction Strategies and Implementation Pathways for the Finance and Accounting Teaching System

2.1 Competency-Oriented Practical Teaching Objective Setting and Content Restructuring

The establishment of competency-oriented teaching objectives is based on the systematic analysis of the ability structure model for finance and accounting professionals. This process requires translating abstract educational specifications into specific competency indicators that are observable and measurable. These competency indicators should comprehensively cover multiple critical dimensions, including technical application, analytical judgment, and comprehensive decision-making, thereby forming a clearly defined and mutually reinforcing competency map. During the objective-setting process, it is essential to fully consider the developmental patterns of abilities at different learning stages, constructing a progressive developmental pathway from basic operational skills to complex problem-solving capabilities. This ensures effective articulation and progressive relationships among the teaching objectives at each stage.

Based on a clearly defined competency objective system, the teaching content requires deep and systematic restructuring. This restructuring process demands breaking away from the traditional curriculum framework organized by disciplinary knowledge logic, and instead establishing modular learning units centered around typical work tasks. The restructuring work must first involve the systematic deconstruction and professional refinement of typical tasks in authentic finance and accounting work scenarios, transforming them into learning projects and training tasks with pedagogical value. This content restructuring does not simply negate or discard original theoretical knowledge, but rather reorganizes and organically integrates knowledge elements according to the inherent logic of finance and accounting work, forming a content architecture that deeply integrates theoretical understanding with practical application. During the content system design process, special attention must be paid to maintaining the dynamic openness of the teaching content, establishing a content update mechanism to ensure the timely incorporation of the latest industry developments and changes in professional standards, thereby maintaining the synchronization of teaching content with the forefront of professional development.

2.2 Collaborative Integration and Dynamic Allocation of Teaching Resources

The collaborative integration of teaching resources constitutes the material foundation and conditional support for the operation of the practical teaching system. This integration process must transcend the physical and organizational boundaries of the traditional campus, establishing a diversified resource network that encompasses on-campus laboratory facilities, virtual simulation platforms, and industry partners. The core of resource integration lies in establishing scientific and effective resource-sharing mechanisms and interest-balancing mechanisms, ensuring that various resources can be seamlessly and efficiently incorporated into the teaching process to maximize their benefits. Among all types of resources, the integration of faculty resources holds particular importance. It is essential to construct a structured teaching team composed of academic faculty and practitioners with extensive industry experience, achieving complementary advantages and synergistic effects in knowledge structures, competency backgrounds, and teaching expertise^[3].

The dynamic allocation of resource management is reflected in the continuous optimization and iterative updating of the resource system according to teaching development needs and industry transformation trends. This requires the establishment of systematic resource evaluation and phase-out mechanisms, enabling regular professional assessment of the functional applicability and technological

advancement of teaching equipment, software platforms, and case materials. Resource allocation should possess sufficient foresight and flexibility to accurately anticipate new requirements for teaching resources arising from industry technological changes and to respond promptly and effectively. In resource development, particular emphasis must be placed on the systematic development of digital teaching resources. By constructing integrated online repositories and intelligent remote collaboration platforms, we can effectively overcome the limitations imposed by physical space on resource utilization, achieving convenient access to resources and flexible expansion of teaching space and time.

2.3 Organizational Logic and Quality Assurance in the Teaching Implementation Process

The organizational logic of the teaching implementation process emphasizes systematic design centered on students' learning pathways and developmental patterns. Teaching organization must strictly adhere to the progressive developmental pattern of competency formation, constructing a spiral learning sequence that progresses from cognitive experience and simulated training to comprehensive application. At the level of teaching activity design, it is essential to precisely balance structured guidance and autonomous inquiry, providing students with necessary learning scaffolds and cognitive support while also retaining sufficient space for exploration and challenge to effectively stimulate students' active inquiry and deep learning. The implementation of the teaching process must also fully consider individual differences among students, designing differentiated learning pathways and personalized support strategies to promote the full development of each student based on their unique foundation.

The quality assurance mechanism should permeate the entire teaching implementation process, forming a closed-loop management system for continuous improvement. This system requires establishing a process evaluation system based on competency attainment, which comprehensively tracks students' learning progress and developmental dynamics through diversified assessment methods. The focus of quality monitoring needs to shift from traditional resource input evaluation to substantive evaluation of the teaching process and learning outcomes, systematically collecting and analyzing various data from teaching operations to promptly identify and effectively resolve existing issues. Simultaneously, it is essential to establish a regular teaching reflection and revision mechanism that transforms feedback from students, industry evaluations, and teaching observations into decision-making bases for optimizing teaching implementation, ensuring the teaching system consistently maintains optimal operational status and adaptive capacity. The ultimate goal of quality assurance is to form an intrinsic motivation mechanism for the self-improvement and continuous optimization of the teaching system, achieving steady improvement and innovative development in teaching quality^[4].

3. Construction of the Evaluation System for the Effectiveness of the Finance and Accounting Teaching System

3.1 Theoretical Basis and Principle Establishment for Teaching Effectiveness Evaluation

The theoretical foundation of teaching effectiveness evaluation is rooted in the intersection of educational measurement and competency-based assessment theory, while also incorporating the latest developments in modern educational evaluation theory. Educational measurement provides rigorous methodological support for evaluation activities, emphasizing that assessment tools must meet fundamental psychometric requirements including reliability, validity, and discrimination to ensure the accuracy and reliability of evaluation results. Competency-based assessment theory has driven a fundamental transformation in the evaluation paradigm, shifting the focus from traditional knowledge recall and comprehension to the demonstration of comprehensive abilities in authentic or highly simulated contexts. This theoretical shift requires assessment design to break through the limitations of traditional paper-and-pencil tests, constructing diverse assessment methods capable of effectively capturing students' demonstrated judgment, analytical skills, and decision-making abilities in complex professional contexts ^[5].

From the perspective of the developmental trajectory of educational evaluation theory, fourth-generation evaluation theory emphasizes the value pluralism and constructive nature of evaluation, providing a new perspective for assessing the effectiveness of finance and accounting teaching. The construction of the evaluation system must adhere to three core principles: the systemic principle requires establishing a comprehensive evaluation chain covering teaching inputs, processes,

and outputs, maintaining internal logical consistency across all evaluation stages to form a complete evaluation ecosystem; the developmental principle emphasizes the formative and promotive functions of evaluation, tracking students' competency development trajectories to provide empirical evidence for teaching improvement, thereby achieving the goal of "evaluation for learning and evaluation for teaching"; the operational principle focuses on the applicability and feasibility of evaluation methods in actual teaching environments, ensuring the evaluation system maintains scientific rigor while being practically implementable. These principles mutually support one another, collectively forming the theoretical foundation for the design of the evaluation system, ensuring that evaluation activities can comprehensively and objectively reflect teaching effectiveness while effectively driving the continuous improvement of teaching quality.

3.2 Design of a Multidimensional Evaluation Indicator System for Finance and Accounting Teaching Effectiveness

The evaluation indicator system for finance and accounting teaching effectiveness adopts a layered design concept, constructing three interrelated evaluation dimensions: foundational competencies, professional skills, and comprehensive qualities. The foundational competency dimension focuses on assessing students' depth of understanding and accuracy in applying professional knowledge, evaluating their ability to transform theoretical knowledge into practical business solutions through tasks such as case analysis and regulatory application. This dimension emphasizes examining students' comprehension of the core principles of financial and accounting standards, as well as their capacity to flexibly apply these standards in specific contexts.

The professional skills dimension focuses on evaluating students' technical application proficiency in simulated business environments, covering core operational segments such as account processing, financial statement preparation, and financial analysis. This dimension's evaluation emphasizes operational standardization and technical proficiency, while also addressing students' demonstrated collaborative processing capabilities within complete business workflows. The design of evaluation tasks follows the principle of typical work tasks, ensuring high alignment between evaluation content and actual job requirements^[6].

The comprehensive qualities dimension aims to assess students' higher-order thinking abilities demonstrated in complex scenarios, including professional characteristics such as information integration, risk analysis, and ethical judgment. This dimension's evaluation is conducted through open-ended cases or cross-period projects, focusing particularly on students' capacity to make professional decisions in contexts characterized by incomplete information and conflicting regulations. The evaluation criteria concern not only the rationality of technical solutions but also emphasize the rigor of the decision-making process and the degree of adherence to professional ethics.

3.3 Evidence-Based Evaluation Implementation and Feedback Improvement Mechanism

The implementation of evaluation is grounded in the collection of diverse evidence, employing a mixed-methods approach that integrates quantitative and qualitative research. Quantitative data are obtained through standardized assessment tools and learning process data analysis, providing information on overall trends in students' competency development and group differences. Qualitative evidence is collected through methods such as in-depth interviews, work analysis, and behavioral observations, focusing on capturing competency traits and learning experiences that are difficult to reflect in quantitative data. The cross-validation of these two sources of evidence helps form a comprehensive understanding of students' competency development and enhances the persuasiveness of evaluation conclusions.

The design of the feedback mechanism emphasizes timeliness and specificity, ensuring that evaluation results can be effectively translated into concrete measures for teaching improvement. Feedback provided to students should clearly identify their strengths and developmental directions, offering personalized learning recommendations; feedback directed at instructors should focus on areas for optimizing the teaching process, providing a basis for adjusting instructional strategies. The feedback process emphasizes two-way interaction, encompassing both the communication of evaluation results and the follow-up assessment of feedback effectiveness.

The core of the improvement mechanism lies in establishing an effective connection between evaluation results and teaching optimization, forming a continuous quality closed-loop system. Through institutionalized teaching reflection and revision processes, evaluation findings are

transformed into specific improvement plans. Improvement measures should clearly define implementation pathways and expected outcomes, with corresponding follow-up evaluation components established. This evidence-based continuous improvement mechanism endows the teaching system with self-renewal capability, driving the continuous enhancement of talent cultivation quality through the cyclical process of evaluation-feedback-improvement, ultimately creating a virtuous developmental dynamic where teaching quality and the evaluation system evolve in synergy.

Conclusion

This study, through a systematic analysis of the theoretical foundation, construction pathways, and evaluation mechanisms of the practical teaching system in finance and accounting under the guidance of industry-education integration, has developed a teaching system framework centered on capability development and grounded in the logic of industry-education integration. By organically integrating four dimensions — objective orientation, content restructuring, resource coordination, and process optimization—this system establishes a complete pathway from knowledge transmission to capability transformation. Furthermore, through multidimensional evaluation indicators and an evidence-driven feedback mechanism, it achieves continuous monitoring of teaching effectiveness and systematic optimization.

Future research may further explore the deep integration pathways of intelligent technologies within the teaching system, examine the incorporation of intercultural competence and sustainability literacy into finance and accounting education, and conduct adaptability studies of the teaching system across different regional contexts. These efforts aim to advance the practical teaching system for finance and accounting toward greater efficiency, flexibility, and foresight.

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