

The Practice and Reflection on the Integration of Competition and Education in the Finance and Accounting Program of Vocational Undergraduate Education

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Abstract: The deep penetration of digital technology drives the transformation of talent cultivation pathways in the vocational undergraduate finance and accounting program, and the integration of vocational skills competitions with teaching constitutes a core issue in responding to industry changes. The research analyzes from three dimensions: coupling logic, curriculum reconstruction, and reflection on effectiveness. The competition system and curriculum structure present multi-dimensional nesting, and the transformation of competition task modules into teaching projects follows the logic of learning. Digitalization promotes the collaborative evolution of competition and teaching content; the modular reorganization of the curriculum based on competition knowledge points forms teaching units with business logic as the main thread, the penetration of competition scoring standards into classroom assessment prompts the concretization of indicators, and the hierarchical and progressive competition-training system integrates competition training into regular teaching organization. Learning performance stems from cognitive changes induced by competition integration, and the competition orientation exerts a continuous impact on professional competence through near transfer and far transfer pathways. Unanticipated problems arise from structural differences between competition logic and teaching logic, and they need to be corrected through content filtering, articulation norms, and evaluation balance.

Keywords: Vocational Undergraduate Education; Finance and Accounting Program; Integration of Competition and Education; Curriculum Reconstruction; Learning Transfer

Introduction

Vocational undergraduate education aims to cultivate high-level technical and skilled talents, and its finance and accounting program needs to respond to the reshaping of job competencies brought about by digital transformation. As an important carrier reflecting the cutting-edge demands of the industry, vocational skills competitions provide reference value for professional teaching through their content design and evaluation standards. The current teaching of the finance and accounting program faces problems such as poor alignment between curriculum content and job requirements and insufficient cultivation of students' comprehensive application abilities, and relying solely on internal adjustments of the curriculum system makes it difficult to achieve breakthrough improvements. The typical work tasks, business process norms, and scoring rubrics embedded in the competition system provide referable elements for teaching reform. The integration of competition and education is not a simple juxtaposition of competition activities and teaching activities; rather, it requires an organic integration of the two at the level of internal mechanisms.

This integration involves the reorganization of curriculum content, the reconstruction of teaching methods, and the optimization of evaluation systems, and its complexity requires a systematic analysis of the integration process. At the same time, the dual effects of competition orientation on the cultivation of professional competencies need to be identified, and the unanticipated problems that may arise during the integration process also need to be taken into consideration. Based on the above background, this study aims to reveal the coupling logic and operational mechanism of the integration of competition and education, to explore the pathways for achieving modular reorganization of the curriculum and teaching reconstruction, and to conduct a theoretical analysis of the formation mechanism and adjustment direction of educational effectiveness.

1. The Coupling Logic and Operational Mechanism of the Integration of Competition and Education in the Finance and Accounting Program of Vocational Undergraduate Education

1.1 The Nested Relationship Between the Vocational Skills Competition System and the Curriculum Structure of the Finance and Accounting Program in Vocational Undergraduate Education

The curriculum structure of the finance and accounting program in vocational undergraduate education is oriented toward competency progression, typically covering modules such as basic accounting, cost management, tax application, financial analysis, and internal control. The vocational skills competition system is designed around typical work tasks in the profession, and an inherent correspondence exists between its content levels and the curriculum modules. Basic accounting competition items correspond to the primary accounting course cluster, while management accounting and financial decision-making competitions align with advanced professional courses. This correspondence is not a simple linear mapping but rather exhibits multi-dimensional nested characteristics^[1].

The integrated situations within the competition system often span multiple curriculum modules and require learners to integrate accounting processing, tax handling, and data analysis capabilities, thereby imposing new demands on the vertical coherence and horizontal integration of the curriculum structure. The emphasis of competition items on the completeness of business processes prompts the curriculum design to break through the single disciplinary logic and shift toward a modular organization based on business scenarios. At the same time, the weight distribution in competition scoring standards reflects the industry's emphasis on specific skill points, and this value orientation gradually permeates the selection of curriculum content and the allocation of class hours. The nested relationship between the competition system and the curriculum structure constitutes the foundational linkage framework for the integration of competition and education.

1.2 The Internal Mechanism of Transforming Competition Task Modules into Teaching Projects

The transformation of competition tasks into teaching projects involves the reconstruction of knowledge forms and the redesign of learning pathways. Task modules in vocational skills competitions are typically characterized by comprehensiveness, time constraints, and high challenges, and introducing them into daily teaching requires decomposition, reorganization, and sequential processing. The core mechanism of the transformation process lies in the conversion of task logic into learning logic. Competition tasks follow the workflow of professional positions and emphasize the accuracy and efficiency of results, whereas teaching projects need to accommodate cognitive patterns and progressive competency development. Specifically, a competition task module first undergoes the decomposition of knowledge elements to identify the professional content it covers, such as accounting rules, the application of tax laws, and financial statement analysis, and is then designed in layers according to the principles of learning progression.

Tasks of high complexity can be broken down into several sub-projects distributed across different teaching stages; individual skill points can be integrated into comprehensive training projects placed at the end of a semester or a curriculum module. The evaluation criteria in competition tasks are transformed into rubrics for project assessment, and the quality requirements for task completion are converted into specific descriptions of learning objectives. The smoothness of this transformation process depends on the teacher's dual understanding of competition content and teaching logic, as well as the curriculum system's capacity to accommodate the integration of projects^[2].

1.3 Dynamic Evolution Characteristics of the Integration of Competition and Education Under the Digital Background

The digital transformation of finance has a profound impact on the content format of vocational skills competitions and the teaching methods of the finance and accounting program, driving the integration of competition and education to present dynamic evolution characteristics. The early stage of competition-education integration focused on the training of accounting skills, with competition platforms simulating manual accounting or computerized operations, and the teaching content remained synchronized with them. With the industry penetration of technologies such as intelligent finance, big data auditing, and robotic process automation, competition projects have gradually incorporated digital task modules such as data analysis, system design, and risk identification. This evolution triggers continuous updates of teaching content, and directions such as financial big data analysis and the

application of intelligent finance tools have been added to the original curriculum system.

The evolution of the integration of competition and education presents a spiral upward trajectory, where the forward-looking nature of competition content guides the iterative direction of teaching content, and the feedback from the teaching process in turn tests the rationality of competition design. The synchronous application of digital tools in both competition platforms and teaching environments makes technical operation specifications and data processing standards tend to be consistent across the two scenarios. At the same time, the assessment requirements for digital literacy in competitions prompt the professional curriculum to strengthen the integrated training of information technology and finance and accounting knowledge. During the evolution process, the boundary between competition and teaching becomes increasingly blurred, and the synergy between the two in terms of content update speed, depth of technology application, and competency cultivation goals gradually improves, forming a dynamic balance of mutual shaping.

2. Modular Curriculum Reorganization and Teaching Reconstruction for the Integration of Competition and Education in the Finance and Accounting Program of Vocational Undergraduate Education

2.1 Modular Reorganization of Professional Courses Based on Competition Knowledge Points

The knowledge points and skill points covered by vocational skills competition content provide a reference for the structural adjustment of the finance and accounting program courses. Competition projects are typically designed around real business scenarios of enterprises, involving multiple business areas such as accounting processing, tax declaration, financial analysis, and internal control, and the distribution of their knowledge points is characterized by cross-course and cross-chapter features.

Guided by competition knowledge points, the modular reorganization of professional courses first requires the deconstruction of the competition content and the identification of the professional elements it contains, such as the application of accounting standards, the application of tax laws, the preparation of financial statements, and data analysis methods. On this basis, the original curriculum content organized according to disciplinary logic is dismantled and restructured to form teaching blocks with business modules as units. For example, the content related to the core business processes of manufacturing enterprises from the courses of Basic Accounting, Intermediate Financial Accounting, and Cost Accounting is integrated to form the "Business Economic Accounting" module; the content related to the calculation and declaration of major taxes from the courses of Tax Law, Tax Planning, and Tax Accounting is reorganized into the "Tax Processing and Declaration" module^[3].

The core of modular reorganization lies in breaking down the barriers between courses, allowing the teaching content to be reorganized with business logic as the main thread, thereby corresponding to the requirements of competition projects for comprehensive application ability. Each module sets clear input requirements and output standards, with the learning outcomes of the preceding module constituting the starting point of the following module, thus forming a cumulative competency effect. While maintaining relative independence among modules, horizontal connections are established through comprehensive projects, providing curriculum-level support for the comprehensive situational response capabilities required for competition training.

2.2 The Penetration of Competition Scoring Standards into the Dimensions of Classroom Teaching Evaluation

The scoring standards of vocational skills competitions are oriented toward job competency, with detailed scoring rules set for dimensions such as operational standardization, data accuracy, process completeness, and analysis depth. These scoring dimensions are observable and quantifiable, providing reference value for the optimization of classroom teaching evaluation systems. The penetration of competition scoring standards into classroom teaching evaluation is reflected in the concretization of evaluation indicators and the diversification of evaluation methods.

At the level of evaluation indicators, traditional course assessments focus on the memorization of knowledge points and the operation of single skills. After the introduction of competition scoring standards, the consideration of the completeness of business processing procedures is added, requiring students to pay attention to the connection among voucher filling, account book recording, and

financial statement preparation while completing accounting tasks. The indicator of data accuracy expands from mere numerical correctness to traceable data sources, clear calculation logic, and explainable abnormal fluctuations. The indicator of time efficiency is incorporated into the evaluation system, imposing requirements on operation speed and task completion timeliness.

At the level of evaluation methods, drawing on the modular scoring model of competitions, the comprehensive project is broken down into several scoring nodes, with each node assigned a weight, thereby achieving a combination of formative assessment and summative assessment. The penetration of scoring standards is also reflected in the design of rubrics: referring to the structure of competition scoring tables, the abstract "analytical ability" is transformed into concrete scoreable items such as "trend identification in statements," "annotation of abnormal items," and "ratio calculation and analysis," thereby enhancing the objectivity and differentiation of evaluation.

2.3 The Construction of a Hierarchical and Progressive Competition-Training System and Teaching Organization

The in-depth advancement of the integration of competition and education requires the construction of a hierarchical and progressive competition-training system that matches the curriculum system, so that competition training transforms from a specialized activity for a few students into a regular teaching organization for all students. The hierarchical and progressive competition-training system sets three levels according to the stages of competency development.

The basic level targets junior students, focusing on single-skill training. Relying on in-course practical training components, it introduces basic task modules from competitions into daily teaching, such as the filling of source documents, the preparation of accounting vouchers, and the preparation of bank reconciliation statements. The training content remains synchronized with the course progress, and the difficulty is controlled within the scope of the course standards^[4].

The advanced level targets junior and senior students, focusing on comprehensive project training. It sets up cross-course comprehensive training weeks or project-based courses, simulating complete business scenarios from competitions, requiring students to complete the entire process from business occurrence to financial statement preparation within a specified time. During the training process, competition scoring standards are introduced for periodic feedback.

The competition level is open to students with strong professional abilities. It organizes specialized training teams and conducts high-intensity simulated training according to competition regulations. The training content covers recent competition past papers and simulation questions, with a focus on breaking through comprehensive difficult problems and non-routine business processing.

A linkage mechanism is set up among the three levels: the advanced level selects students with operational standardization from the basic level, and the competition level selects students with outstanding comprehensive application ability from the advanced level. At the teaching organization level, the competition-training content is incorporated into the talent cultivation plan with corresponding credits assigned. The training at the basic level and the advanced level is arranged within the teaching plan, while the training at the competition level is offered in the form of elective courses or the second classroom, with guidance tasks jointly undertaken by professional teachers and competition instructors.

3. Measurement and Reflective Adjustment of Educational Effectiveness of the Integration of Competition and Education in the Finance and Accounting Program of Vocational Undergraduate Education

3.1 The Formation Mechanism of Learning Performance Under the Background of Competition-Education Integration

The impact of the competition-education integration model on learning performance stems from the changes in learning motivation and cognitive processes caused by the embedding of competition elements into the teaching system. The formation of learning performance is not a simple addition of competition training and course learning, but rather a synergistic effect generated by their interaction. The goal clarity and outcome observability of competition tasks play a guiding role in learners' goal setting, shifting learning behavior from vague knowledge accumulation to specific task completion. The time constraints and competitive pressure in competition situations activate learners'

stress-responsive cognitive processing, thereby improving the efficiency of information processing^[5].

In the field of finance and accounting, competition tasks usually involve operational content such as the interpretation of source documents, the application of accounting standards, and the filling of statement items. Such tasks require learners to invoke procedural knowledge and form conditional responses through repeated practice. The integration of competition and education embeds this task-driven learning into the regular teaching process, closely linking knowledge acquisition and skill application in the temporal sequence, thereby shortening the conversion cycle from theoretical learning to skill application.

At the same time, the self-monitoring habits formed in competition training, such as checking the continuity of vouchers, verifying the articulation relationships in statements, and validating the reasonableness of calculation results, are transferred to daily learning tasks, thereby enhancing the accuracy and completeness of the learning process. The formation mechanism of learning performance is also reflected in the interactive effects at the group level: the collaboration and competition within competition training groups create opportunities for peer teaching and observational learning, promoting the optimization of professional skills through interpersonal transmission.

3.2 The Transfer Effect of Competition Orientation on Professional Competence Cultivation

The influence of competition orientation on professional competence cultivation is presented through two pathways: near transfer and far transfer. Near transfer is manifested as the extension of competition training content and methods to similar learning tasks. Students who participate in financial decision-making competitions demonstrate stronger task deconstruction ability and information integration awareness when handling comprehensive case analyses in courses, as they can identify key business nodes in the cases and organize problem-solving steps according to the analytical framework formed in competitions.

The training experience in accounting competitions makes students sensitive to the standardization of source documents and the completeness of elements in accounting vouchers, and this sensitivity continues to play a role in course assignments and training projects. Far transfer is reflected in the diffusion of cognitive habits and professional qualities shaped by competition training to a wider range of professional scenarios. The business-finance integration thinking formed during the competition process enables students to consciously perform accounting language conversion when facing business descriptions, transforming business activities into accounting entries and statement items^[6].

The strict constraint of competition scoring rules on data accuracy cultivates students' prudent attitude toward numbers, which manifests as a consciousness of tracing data sources and a habit of verifying calculation results in tasks such as financial analysis and budgeting. The intensity of the transfer effect is moderated by the depth of competition training and the closeness of teaching articulation. The higher the frequency and the longer the cycle of competition training, the greater the skill proficiency and the more lasting the transfer effect; the higher the overlap between competition content and course content, the greater the likelihood of transfer occurrence.

3.3 Attribution and Correction of Unanticipated Problems in the Process of Competition-Education Integration

During its operation, the integration of competition and education presents a series of unanticipated problems, which stem from structural differences between competition logic and teaching logic. The extreme pursuit of speed and accuracy in competition training may lead learners to develop mechanical operational habits, resulting in a lack of adaptability when facing non-routine tasks, manifested as rigid application of accounting standards and difficulty in identifying abnormal transactions. Some students, after high-intensity competition training, develop a slack attitude toward simple accounting tasks, showing decreased attention when handling daily business and experiencing an increase in the rate of elementary errors.

There exists a tension between the limited coverage of competition content and the systematic requirements of the curriculum. Excessive focus on hot areas in competitions may encroach upon the balanced investment in foundational knowledge, resulting in partial gaps in the knowledge structure. The explicit nature of competition scoring rules predisposes learners to organize their learning behaviors according to the scoring points, paying insufficient attention to tacit knowledge not included in the scoring scope, such as professional ethical sensitivity and communication and coordination

skills.

Attribution analysis indicates that the emergence of these problems is related to the misalignment between competition goals and teaching objectives, as well as to the competition for time resources between competition training and regular teaching. Correction strategies can be developed in three directions: first, a screening mechanism should be established in the selection of competition content and the teaching transformation stage to eliminate overly technical competition content that deviates from the cultivation objectives of vocational undergraduate education; second, articulation norms between competition training and basic courses should be established in teaching organization, clarifying the academic requirements of regular courses for competition participants; third, assessment nodes for non-routine task handling ability and professional judgment ability should be added to the evaluation system to balance the relationship between competition scoring orientation and the cultivation of comprehensive professional competencies.

Conclusion

The construction of the competition-education integration talent cultivation model is essentially a process of embedding the elemental logic of vocational skills competitions into the teaching system of the finance and accounting program in vocational undergraduate education. The nested relationship between the competition system and the curriculum structure constitutes the foundational framework for integration, and the transformation of competition tasks into teaching projects requires a conversion from job logic to learning logic.

The collaborative evolution of competition content and teaching content under the digital background drives the convergence of the two in terms of update speed and technological depth. The modular reorganization at the curriculum level, guided by competition knowledge points, reorganizes teaching content along the main line of business operations, breaking down the original disciplinary barriers. The penetration of competition scoring standards into classroom teaching evaluation enhances the objectivity and operability of evaluation indicators. The hierarchical and progressive competition-training system transforms competition training into a regular teaching organization for all students, achieving a shift from participation by a few to full coverage.

The formation of learning performance originates from the cognitive changes induced by the embedding of competition elements, and the competition orientation exerts a continuous impact on professional competence cultivation through near transfer and far transfer pathways. The unanticipated problems emerging during the integration process indicate that the structural differences between competition logic and teaching logic need to be properly addressed, and correction strategies should be developed from three directions: content filtering, articulation norms, and evaluation balance. Follow-up research can further focus on the moderating mechanisms among various elements in the process of competition-education integration, explore the matching relationships between different competition types and curriculum modules, as well as the mediating role of digital tools in the integration process.

Fund Projects

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References

- [1] Zhang Jian, et al. "Cultivation of Innovative Environmental Talents Driven by the Integration of Competition and Education." *Paper Technology and Application* 54.01(2026):71-74.
- [2] Tong Xiaoqiong. "Research on the Cultivation Mode of Accounting Talents under the Background of Financial Digital Intelligence Transformation." *China Collective Economy* 34(2025):193-196.
- [3] Yu Ming, Sun Lei, and Kang Zimeng. "Research on the Three-dimensional Integrated Teaching Model of Vocational Undergraduate Programs under the Background of New Liberal Arts—Taking the 'Big Data+' Finance and Accounting Program as an Example." *Journal of Suzhou Vocational*

University 36.04(2025):81-87.

[4] Qin Yalin, and Liu Lin. "Research on the Reform of Management Accounting Courses Based on the Vocational Undergraduate Education Model of Finance and Accounting Program." *Chinese Journal of Multimedia and Network Teaching (Mid-month) 12(2024):46-49.*

[5] Han Wei. "Reform and Exploration of the 'Integration of Competition and Education' Teaching Model." *Journal of Hubei Open Vocational College 38.24(2025):185-186+189.*

[6] Fu Limei, and Xu Feng. "Research on the Reform of Talent Cultivation Mode of Finance and Accounting Program in Vocational Undergraduate Colleges in the Digital Intelligence Era." *Science, Technology, Economy and Market 01(2023):146-148.*