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Research on the Teaching Reform of the Undergraduate Finance Major from the Perspective of New Quality Production Forces

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Abstract: Against the background of accelerating the development of new quality production forces, the traditional talent training model of finance majors in colleges and universities has been difficult to meet practical needs. Currently, how to cultivate financial talents that meet the requirements of new quality production forces remains a hot topic in education reform. Based on this, this paper analyzes the connotation of new quality production forces and their new requirements for the ability structure of financial talents, then discusses the practical problems that need to be solved to cultivate students' various abilities, and proposes feasible strategies for reconstructing talent training goals, curriculum systems, and teaching models. It aims to provide reference for the teaching reform of undergraduate finance majors.

Keywords: New quality production forces; Finance; Teaching reform; Talent cultivation; Digital transformation

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1. Introduction

The development of new quality production forces requires emerging industrial talents with digital literacy, innovative spirit, and practical ability as support. Therefore, undergraduate finance majors must keep up with the times, reflect the new requirements of new quality production forces for the ability structure of financial talents in talent training goals, curriculum systems, and teaching models, and provide corresponding guarantee measures such as teaching staff, teaching resources, and management systems. In this way, it can accelerate the solution of the current problems in the teaching of undergraduate finance majors, such as the lag of talent training goals behind industrial needs, the imbalance of curriculum system structure, and the insufficient innovation of teaching methods and means, and provide students with financial knowledge and skills more in line with market needs.

With the gradual advancement of the new round of scientific and technological revolution and industrial transformation, new quality production forces led by scientific and technological innovation and characterized by high quality, high efficiency, and high technology are reshaping the global economic pattern. At the same time, they are putting forward new requirements for the ability structure of practitioners in various fields. Especially

finance, as the core of modern economy, plays a crucial role in resource allocation and risk management in the formation and development of new quality production forces, and imposes higher requirements on practitioners' basic financial theoretical knowledge, digital literacy, technological application ability, and interdisciplinary integration thinking [1].

However, the current teaching of undergraduate finance majors in China generally has problems such as the lag of talent training goals behind industrial needs, the imbalance of curriculum system structure, and the insufficient innovation of teaching methods and means, which are difficult to meet the requirements of new quality production forces for compound financial talents. Against this background, systematically exploring the teaching reform of finance majors from the perspective of new quality production forces is of important theoretical and practical significance.

2. Connotation of new quality production forces and their new requirements for financial talents

2.1. Core characteristics of new quality production forces

New quality production forces are a form of production forces mainly supported by new technologies, new economies, and new formats, and their core characteristics include high-tech drive, high-efficiency output, high-quality orientation, and innovation leadership [2].

(1) High-tech drive: That is, the deep integration of digital technologies such as artificial intelligence, big data, blockchain, and cloud computing with finance drives the continuous innovation and transformation of financial formats.

(2) High-efficiency output: Focus on improving total factor productivity, emphasize the accuracy and efficiency of resource allocation, and pursue the maximization of value creation.

(3) High-quality orientation: Emphasize innovating financial service models centered on customer needs, and provide personalized and customized services for users.

(4) Innovation leadership: Requires reshaping financial service processes with technological innovation, model innovation, and institutional innovation as the core driving forces, breaking the boundaries of traditional financial business.

2.2. New requirements for the ability structure of financial talents

The core characteristics of new quality production forces determine that they put forward some new requirements for the ability structure of financial talents, which are concentrated in the following five aspects:

(1) Digital technology application ability mainly includes mastering digital skills such as data analysis, algorithm application, and financial technology tools [3].

(2) Interdisciplinary knowledge integration ability refers to having an interdisciplinary knowledge background in finance, computer science, mathematics, law, etc., and being able to flexibly use multi-disciplinary knowledge to solve complex financial problems [4].

(3) Innovative practical ability is specifically reflected in innovative thinking, entrepreneurial spirit, new product development, etc. It refers to the ability to keenly capture market changes, propose innovative financial solutions, and put them into practice.

(4) Ethics and compliance awareness refer to adhering to the bottom line of financial ethics and compliance in the process of digital transformation.

(5) Lifelong learning ability includes the ability to continuously learn new knowledge and skills, adapt to the rapid iteration and development of financial technology, and maintain the advanced nature of professional literacy, which can help students adapt to the new era of financial technology environment [5].

3. Main problems in the current teaching of undergraduate finance majors

3.1. Talent training goals lag behind industrial needs

The training goals of finance majors in some undergraduate colleges still focus on traditional formats such as banking, securities, and insurance, and pay insufficient attention to emerging fields such as financial technology, green finance, and inclusive finance, leading to a mismatch between talent training specifications and the development needs of new quality production forces [6,7].

3.2. Imbalanced curriculum system structure

The imbalance of the curriculum system structure is mainly reflected in three aspects: the excessive proportion of traditional theoretical courses, the weak integration of interdisciplinary courses, and the virtualization of practical teaching links. For example, in the finance majors of some undergraduate colleges, traditional courses such as Money and Banking and International Finance account for a high proportion, while courses related to the development of new quality production forces such as financial technology and big data finance account for a small proportion, and no experimental, training, or internship environments are provided for related courses; in the finance majors of some undergraduate colleges, computer, data science and other related courses are only offered as electives, and no special interdisciplinary integrated courses have been developed.

3.3. Insufficient innovation in teaching methods and means

The teaching of finance majors in some colleges still adopts the traditional teacher-centered model, failing to highlight students' subjectivity. Moreover, the application of digital teaching tools in the teaching implementation process is superficial, still staying at the level of displaying subject knowledge through PPT [8].

4. Construction of the teaching reform framework for undergraduate finance majors from the perspective of new quality production forces

In response to the above problems, this paper proposes a four-dimensional integrated teaching reform framework of "goal reconstruction - content update - method innovation - evaluation reform".

4.1. Reconstruct talent training goals: Positioning compound fintech talents

From the perspective of new quality production forces, the talent training goal of undergraduate finance majors needs to complete the transformation from "traditional financial practitioners" to "compound talents proficient in finance, familiar with technology, and possessing ethics". This "compound" nature is mainly reflected in mastering modern financial theories and necessary digital technology knowledge; having data analysis and modeling capabilities, financial product innovation and design capabilities, risk management capabilities, and compliance awareness, forming the key capabilities required for the development of new quality production forces; cultivating scientific and technological innovation awareness, social responsibility, and international perspective, deeply understanding the concept of green finance, and forming high comprehensive literacy [9].

4.2. Optimize the curriculum system structure: Construct a three-dimensional curriculum module of "finance + technology + ethics"

The three-dimensional curriculum module of "Finance + Technology + Ethics" includes four modules: basic theory module, core fintech module, interdisciplinary expansion module, and practical innovation module.

(1) Basic theory module: It is the further optimization of traditional finance courses, incorporating new content such as digital currency and regulatory technology, which can lay a solid foundation of financial theory for students.

(2) Core fintech module: Add compulsory courses such as Python Financial Application, Blockchain Finance, Artificial Intelligence and Intelligent Investment Advisory, and Big Data Risk Control, which are important links connecting the curriculum system with the development of new quality production forces.

(3) Interdisciplinary expansion module: It mainly includes interdisciplinary courses such as "Finance + Law", "Finance + Environmental Science", and "Finance + Psychology", aiming to broaden students' interdisciplinary perspective [10].

(4) Practical innovation module: It is a stepped practical system running through the four-year study career of undergraduates, including links such as financial data analysis training, fintech project design, and internships in financial institutions [11].

4.3. Innovate teaching methods and models: Promote digital, project-based, and collaborative teaching

To innovate teaching methods and models and realize the digital, project-based, and collaborative development of undergraduate finance teaching, colleges and universities can promote mixed smart teaching, deepen the reform of virtual simulation teaching, implement Project-Based Learning (PBL) teaching, and build a production-education-research collaborative talent training model. Among them, compared with traditional mixed teaching, mixed smart teaching adds the application of artificial intelligence teaching tools and integrates more practical links such as case discussions and project collaboration; virtual simulation teaching is carried out relying on virtual simulation laboratories such as intelligent investment advisory, quantitative trading, and risk early warning, which can provide students with simulated financial scenarios and bring them an immersive learning experience; Project-Based Learning (PBL) guides students to implement projects with real problems of fintech enterprises as the theme, which can cultivate students' ability to solve complex financial problems; production-education-research collaborative talent training emphasizes the cooperation between colleges and universities, financial institutions, and technology companies, requiring schools and enterprises to jointly build industrial colleges, and introduce enterprise mentors and actual combat projects relying on industrial colleges.

4.4. Reform the teaching evaluation system: Establish a diversified, process-oriented, and competency-oriented evaluation mechanism

To connect with the development of new quality production forces, undergraduate finance majors need to adopt a diversified, process-oriented, and competency-oriented evaluation mechanism, realizing the diversification of evaluation content, the combination of process evaluation and result evaluation, and the combination of teacher evaluation and third-party evaluation. In this mechanism, the diversification of evaluation content is mainly reflected in integrating evaluation standards such as classroom performance, project reports, experimental operations, and innovative achievements; process evaluation is realized through big data tracking and analysis

of students' learning processes, and incorporates real-time feedback and personalized guidance links; third-party evaluation introduces industry experts to participate in graduation design, project competitions and other links, aiming to strengthen the social adaptability of teaching evaluation [12].

5. Guarantee measures for the implementation of teaching reform

5.1. Transformation of teaching staff: Building a "dual-qualified" teaching team

The construction of a "dual-qualified" teaching team needs to be continuously promoted from three dimensions: internal improvement, external introduction, and team building. Specifically, to achieve "internal improvement", colleges and universities can organize teachers to participate in fintech training and on-the-job training in enterprises, enabling them to improve their digital literacy and practical ability in the process of professional knowledge learning and practical training; "external introduction" can be realized by hiring technical backbones of financial institutions and fintech entrepreneurs as part-time teachers or industrial mentors; "team building" can be realized through the construction of interdisciplinary teaching teams, which can jointly develop courses and guide projects, and promote teaching reform by combining the advantages of teachers with different disciplinary backgrounds [13,14].

5.2. Construction of teaching resources: Building an open and shared resource platform

The teaching reform of undergraduate finance majors from the perspective of new quality production forces needs to be supported by fintech case libraries, digital teaching resources, and school-enterprise co-built practical teaching bases. Therefore, the construction of teaching resources can be carried out around the above three aspects, gradually forming an open and shared resource platform. Among them, the fintech case library collects typical domestic and foreign fintech cases, which can provide materials for daily teaching; digital teaching resources include digital resources such as micro-lectures, virtual simulation experiments, and online training projects, which can support online teaching, experimental teaching, and training activities; school-enterprise co-built practical teaching bases integrate educational resources of financial institutions, technology companies, and undergraduate colleges, providing venues, equipment, projects and other support for the development of relevant teaching activities.

5.3. Optimization of the institutional environment: Improving teaching management and incentive mechanisms

The optimization of the institutional environment mainly involves three aspects: the revision of talent training programs, the innovation of teaching management systems, and the construction of teaching reform incentive mechanisms. To connect the teaching of finance majors with the development of new quality production forces, undergraduate colleges can improve the guarantee measures for teaching reform around the above three aspects. For example, incorporate content related to fintech, green finance and other directions into the talent training plan, integrate innovative measures such as interdisciplinary course selection, project credit recognition, and flexible academic system into the teaching management system, and take teaching innovation achievements as important indicators for teachers' professional title evaluation and performance assessment [15].

6. Conclusion and prospect

In summary, new quality production forces put forward higher requirements for financial talents in terms of

digital technology application, interdisciplinary knowledge integration, lifelong learning, and innovation. Against the background of accelerating the development of new quality production forces, the teaching of undergraduate finance majors needs to be adjusted in combination with the new requirements for the ability structure of financial talents, and further improve the talent training goal system, curriculum system, and teaching model to solve the problems existing in teaching such as the lag of talent training goals behind industrial needs, the imbalance of curriculum system structure, and the insufficient innovation of teaching methods and means. At the same time, to smoothly solve these problems and gradually promote the relevant reform measures, colleges and universities need to provide guarantees such as teaching staff, teaching resources, and management systems to consolidate the foundation of education reform.

In the future, with the deepening integration of finance and technology and the continuous development of new quality production forces, the teaching reform of undergraduate finance majors still needs continuous iteration. Subsequent research can focus on the following directions:

(1) Research on the specific content design of fintech courses;

(2) The organization and operation mechanism of interdisciplinary teaching teams;

(3) Scientific evaluation methods for digital teaching effects.

Disclosure statement

The author declares no conflict of interest.

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