



Research on the Reform and Innovation of Major-based Ideological and Political Education in Finance and Accounting Driven by Artificial Intelligence

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Abstract. This paper proposes an innovative reform scheme for AI-enabled ideological and political teaching in finance and accounting majors under the “1+3+3” integrated model. Centered on fostering virtue through education, it adopts a top-level design via a “surface-line-point” knowledge graph, builds three pillars of curriculum system, talent training and teaching teams, and constructs an “objective-method-support” implementation framework. The research offers theoretical and practical reference for ideological and political education reform.

Keywords: Major-based Ideological and Political Education, AI-driven Teaching, Teaching Reform, Talent Cultivation.

1 Introduction

To fulfill the fundamental mission of moral education, universities have achieved remarkable outcomes in practice and research on ideological and political curriculum construction such as the update of teaching concepts, the exploration of ideological elements, the construction of teaching content, and the adoption of teaching methods [1-3]. Amid digital intelligent transformation in accounting, professional ideological and political education is urgently required to remedy inadequate AI-oriented top-level design and inter-course coordination in traditional teaching [4]. Accordingly, this study puts forward an AI-integrated “1+3+3” teaching reform plan to explore innovative paths for ideological and political education in finance and accounting majors.

2 Top-Level Design of Knowledge Graph-Based Ideological and Political Teaching for Finance and Accounting Majors

Leveraging the advantages of structured organization and intelligent correlation of knowledge graphs [5], this paper structurally visualizes educational philosophy, curriculum construction and ideological-political elements, and constructs a top-level design framework for professional ideological-political education with the three-dimensional integration of “surface-line-point”, as shown in Fig. 1.

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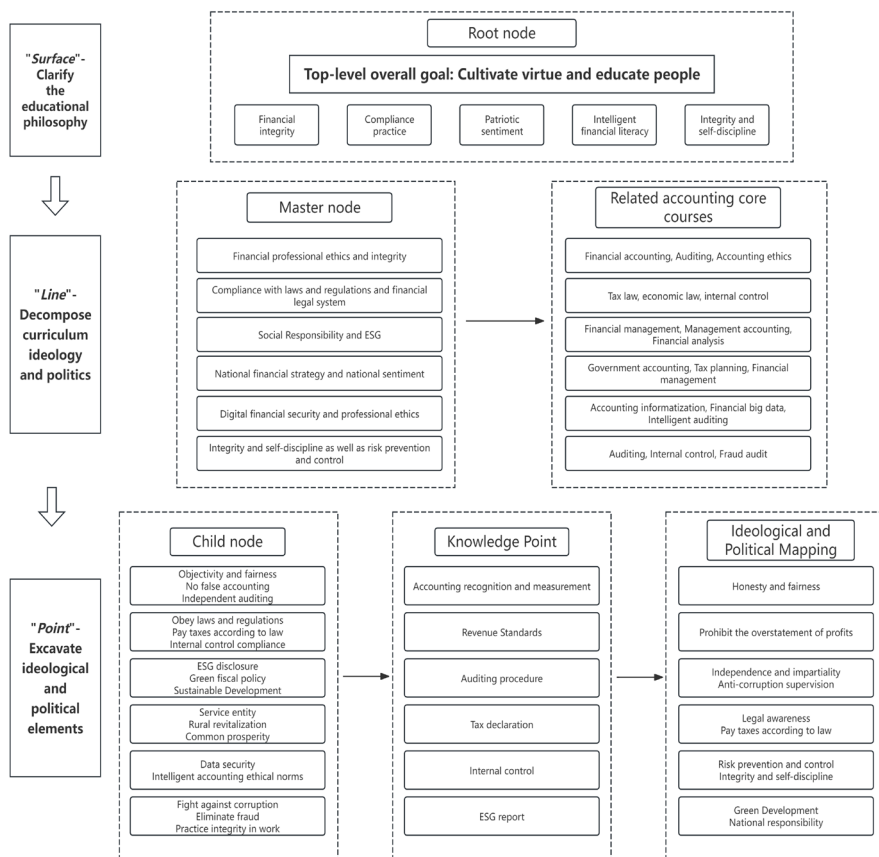


Fig. 1. Top-level Design for Ideological and Political Teaching in Finance and Accounting Majors based on Knowledge Graph

2.1 “Surface”: Clarify the Professional Educational Philosophy

Against the background of fostering virtue through education, combined with the characteristics of finance and accounting majors and the demands of the AI era, the *Code of Professional Ethics for Accountants* is organically integrated into teaching contents. A five-dimensional ideological and political education philosophy — financial integrity, compliant practice, national sentiment, financial intelligence, and integrity and self-discipline — is summarized and formulated, which serves as the root node of the knowledge graph with corresponding attribute labels attached.

2.2 “Lines”: Decompose Curriculum Construction Ideology and Politics

With the correlation analysis and node matching functions of knowledge graphs, the five-dimensional educational philosophy is decomposed hierarchically and connected

as core nodes to the core curriculum system of finance and accounting majors. AI algorithms enhance coordination across courses, linking educational elements within teaching objectives, content, methods and evaluation systems, and thus forming a coherent main line for curriculum development.

2.3 “Points”: Excavate Ideological and Political Elements

Based on the characteristics of finance and accounting majors, knowledge graph technologies such as entity recognition and relationship extraction are applied to dig out core educational elements as underlying child nodes. Relevant attributes are labeled and a resource repository is established. Knowledge graphs combined with AI technologies can build an intelligent mining system, enable automatic identification and share of educational elements.

3 Construction of AI-empowered Ideological and Political Curriculum System for Finance and Accounting

3.1 Optimize Curriculum Ideological and Political Teaching Objectives

In line with the five-dimensional educational philosophy, AI is applied to refine teaching objectives into three dimensions. In value guidance, the AI-driven educational engine nurtures students' national identity and professional ethics in the digital era. In knowledge teaching, AI knowledge graphs break down core course points to help students grasp professional theories and link expertise with educational connotations. In ability cultivation, emphasis is placed on improving core competencies including big data financial analysis and digital intelligent practical application [6].

3.2 Reconstruct Curriculum Ideological and Political Content System

AI coordinates the vertical integration and horizontal collaboration of curriculum education. Vertically, the educational mainline runs through the whole talent training process in line with cultivation rules. Horizontally, course barriers are removed to build a collaborative system of core guidance, supporting courses and practical application. AI knowledge graphs break down knowledge points, mark educational integration nodes, and establish two-way links between professional knowledge and educational elements for cross-course resource coordination.

AI text mining integrates relevant achievements to build a finance and accounting educational case library for classified resource reuse. Big data intelligently collects financial hot topics and industry cases, which are semantically matched with curriculum educational goals. The library includes both positive and negative examples: typical practices of integrity, compliance and digital transformation offer positive guidance, while cases of financial fraud and professional misconduct provide warning enlightenment, effectively strengthening educational outcomes.

3.3 Update Curriculum Ideological and Political Teaching Methods

To solve the problems of outdated teaching modes, monotonous forms and rigid value integration in traditional finance and accounting courses [7], an AI-enabled online-of-line blended teaching model is established. Online learning adopts intelligent Q&A, themed micro lectures and topic discussions; offline teaching includes AI-assisted case studies, thematic debates and off-campus financial practice. VR and simulation technologies are applied to build training scenarios involving financial fraud governance, corporate social responsibility decision-making, financial risk control and rural economic support.

4 Innovation of AI-driven Talent Cultivation Model for Finance and Accounting Major

4.1 Value Creation in the AI Era

Under digital intelligence, value creation is guided by financial literacy, covering four dimensions: innovation spirit, responsibility, tech ethics and digital security [8]. It fosters students' innovative thinking and technological awareness amid industrial digital transformation, cultivates their professional integrity, financial security awareness and industry mission in the big data era, and upholds fairness, data privacy and ethical technology in AI application, enabling students to abide by ethical norms in professional practice.

4.2 Evaluation and Guarantee of Personalized Training

In terms of evaluation, AI big data collection and analysis technology is adopted to track students' ideological performance in classroom and extracurricular practice as well as the development of professional literacy throughout the learning process. It complements the traditional single examination evaluation to comprehensively and objectively measure the effect of value guidance. In terms of guarantee, disciplinary competitions and research projects are used to cultivate innovative spirit. Digital intelligent modules such as data processing and financial modeling are embedded into courses. A big data financial laboratory is built to cooperate with real enterprise projects, promoting the transformation from theory to practical application and providing resource support for personalized talent training.

5 Establishment of AI-assisted Ideological and Political Teaching Team for Finance and Accounting

5.1 Capability System Construction

Based on the concept of all-staff, whole-process and all-round education, teachers need

three core competencies: digital intelligence application, ideological and political integration, and industry insight. Relying on AI workshops and big data training, teachers can improve their capabilities in intelligent teaching, student learning analysis and lesson preparation, and transform their role from knowledge lecturers to learning guides and resource integrators. Through expert guidance and curriculum ideological and political competitions, teachers master the methods of integrating professional teaching with value guidance. By arranging teachers to participate in enterprise practice and engage in intelligent finance and big data auditing business in depth, they can grasp industrial technological changes and ethical norms, and enrich classroom teaching with practical industry cases.

5.2 Collaborative Teaching Model

A multi-subject collaborative education model is constructed to empower teaching reform with artificial intelligence. The interdisciplinary “one course, multiple teachers” mode features joint teaching by finance, accounting and ideological and political teachers. With AI assistants and knowledge graphs, it links interdisciplinary knowledge points, supports collective lesson preparation and learning analysis, and addresses the disconnection in interdisciplinary teaching. The school-enterprise dual-mentor system invites industry executives and outstanding alumni to share professional ethics cases. Combined with AI simulation platforms, it builds remote interactive ethical decision-making scenarios to break the time and space barriers of industry-education integration.

6 Conclusion

Based on existing achievements of curriculum ideological and political education, this study proposes an innovative reform scheme for AI-enabled ideological and political teaching in finance and accounting majors under the “1+3+3” integrated model. With knowledge graphs to run through the whole education chain, it improves the education mechanism from the dimensions of curriculum, talent training and teaching staff. The scheme is not only applicable to finance and accounting majors, but also offers important references for the ideological and political teaching reform of other disciplines. In the future, it is necessary to continuously deepen the integration of ideological and political education, digital intelligent technology and professional knowledge, so as to cultivate finance and accounting talents with solid professional competence and professional ethics.

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