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Research on the Optimization of Tax Law Curriculum System in Colleges and Universities Under the Digital Economy: Based on the MG Teaching Model

Zhang Yuanyuan

Department of Educational Administration, Gyeonggi-doDaejin University, 1007, Hoguk-ro, Pocheon-si, South Korea

Abstract: *The development of the digital economy and the digital transformation of tax governance have reshaped the talent demand structure in the global tax field. At present, the tax law curriculum system in Chinese colleges and universities has prominent problems such as lagging content updates, weak practical links, insufficient digital integration, and homogenized teaching organization, which cannot meet the training needs of compound and application-oriented tax talents in the era of "tax governance by data". Supported by Curriculum Development Theory and Competency-Based Education Theory, this paper introduces the MG (Modular and Grouping) teaching model, analyzes the practical challenges of the digital economy to the tax law curriculum system, constructs a modular curriculum structure and hierarchical teaching implementation path, and puts forward a supporting guarantee mechanism for curriculum management and quality control. This study provides a practical reference for colleges and universities to optimize the tax law curriculum system and improve the quality of financial and taxation talent training.*

Keywords: *Digital Economy, MG Teaching Model, Tax Law Curriculum, Curriculum System Optimization, Educational Administration*

1. Introduction

The in-depth advancement of the digital economy has driven the deep integration of big data, artificial intelligence, and blockchain technology into the global tax collection and administration system. The implementation of China's Golden Tax Project Phase IV, the full popularization of electronic invoices, and the maturity of tax big data risk monitoring scenarios have propelled China's tax governance into a new stage of "tax governance by data" and "smart taxation" [1]. This transformation has put forward higher requirements for the knowledge structure, digital application ability and comprehensive professional literacy of tax talents. As the main front for tax talent training, the scientificity and practicality of the tax law curriculum system in colleges and universities directly determine the matching degree between talent supply and social demand [2].

At this stage, the structural contradictions of the traditional tax law curriculum system in Chinese colleges and universities have become increasingly prominent. The curriculum content focuses on traditional tax system provisions and offline collection processes, with insufficient coverage of digital tax-related policies and intelligent financial tool applications [3]. The teaching organization is dominated by large-class homogenized teaching, ignoring the differences in students' academic foundation and career development needs. Practical teaching is limited to simple tax declaration simulation, lacking digital and scenario-based comprehensive training, and the interdisciplinary collaborative education mechanism has not yet been improved [4]. In this context, it is of great practical necessity to introduce the MG teaching model from the perspective of educational administration, and systematically promote the optimization of the tax law curriculum system through modular content reconstruction and hierarchical teaching optimization.

This paper discusses the application logic, framework design and implementation path of the MG model in the optimization of the tax law curriculum system, aiming to build a new curriculum system that adapts to the development of the times, conforms to the law of teaching, and highlights ability training.

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2. Core Concepts and Theoretical Basis

2.1 Definition of Core Concepts

The digital economy is an economic form that takes data as the key production factor, modern information network as the core carrier, and digital technology application as the main driving force. Its penetration in the tax field has promoted the all-round transformation of tax system rules, collection and administration models, and supervision logic, and put forward new requirements for the tax law compliance and risk management capabilities of tax-related entities [5].

The MG (Modular and Grouping) teaching model is a teaching organization form combining modular curriculum design and hierarchical grouping teaching. "Modular design" disassembles and reorganizes curriculum content into independent and interconnected teaching units according to knowledge logic, ability dimension and application scenarios, which is convenient for dynamic content updates. "Grouping teaching" implements differentiated teaching according to students' academic foundation, learning ability and career development direction to realize teaching students in accordance with their aptitude. The combination of the two has the dual advantages of knowledge structuring and teaching personalization, and is suitable for the reform of application-oriented professional courses [6].

The tax law curriculum system in colleges and universities is an organic whole composed of tax law-related theoretical courses, practical courses, training links, teaching management and evaluation guarantee mechanisms, which is constructed by colleges and universities to achieve the talent training objectives of finance and taxation, law, economics and management majors. Its optimization is a process of systematic adjustment and resource allocation of various curriculum elements from the perspective of educational administration.

2.2 Theoretical Basis

This research is supported by two classic educational theories, which provide a solid academic basis for the optimization of the curriculum system.

2.2.1 Curriculum Development Theory

This classic theory follows the complete logical chain of "goal setting - content selection - organization and implementation - evaluation and feedback", and emphasizes that curriculum optimization is the overall planning of curriculum objectives, content structure, teaching process and resource guarantee . From the perspective of educational administration, the optimization of the tax law curriculum system is not a simple addition or deletion of knowledge points, but a systematic institutional arrangement of the whole curriculum operation process, which needs to ensure that the curriculum system is highly consistent with the talent training objectives and social development needs.

2.2.2 Competency-Based Education Theory (CBE)

This theory takes the professional competencies required by occupational posts as the core to organize teaching, requiring that teaching content is fully connected with actual work scenarios, and the teaching process fits the law of ability formation [7]. In the context of the digital economy, this theory provides a core theoretical basis for the transformation of tax law courses from "knowledge imparting" to "ability training", and clarifies that the curriculum system optimization must focus on the core competencies required by digital tax posts, and build a hierarchical ability training system through modular curriculum design.

3. Practical Problems of the Tax Law Curriculum System in Colleges and Universities Under the Digital Economy

Against the background of the rapid development of the digital economy and smart taxation, the inherent defects of the traditional tax law curriculum system have been fully highlighted, resulting in a significant structural imbalance between curriculum supply and the talent demand of the tax industry. According to the China Tax Talent Development Report (2024), more than 70% of tax authorities and corporate financial positions believe that graduates of tax law majors have problems such as insufficient digital skills and disconnection between knowledge and practice, and only 32% of employers are satisfied with the quality of tax talent training in colleges and universities [8]. The specific problems are concentrated in the following four aspects.

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3.1 Lagging Curriculum Content Update, Insufficient Coverage of Digital Content

The existing tax law courses still take traditional entity taxes as the core framework, with more than 80% of the teaching content focusing on tax system elements, tax payable calculation and offline collection processes, and lack of coverage of tax rules for new digital economy formats. On the one hand, the explanation of tax policies for emerging fields such as platform economy, cross-border e-commerce and digital service trade accounts for less than 10% of the total content, and most textbooks lack systematic interpretation of the core tax issues of these new formats [9]. On the other hand, the integration of digital tax practice content is scarce. Content highly related to actual work, such as the operation of the Golden Tax Project Phase IV system, electronic invoice management, and tax big data analysis, is only slightly involved in elective courses of a few colleges and universities. More than 65% of finance and taxation majors have not received systematic operation training of digital tax tools during their studies. At the same time, the average update cycle of teaching content after tax policy adjustment reaches 2-3 years, resulting in a serious disconnection between students' knowledge and actual work scenarios.

3.2 Rigid Curriculum Structure, Weak Interdisciplinary Integration and Practical Teaching

From the perspective of curriculum structure, first, the degree of interdisciplinary integration is extremely low. Tax law courses mostly exist in the form of independent courses, with insufficient connection with financial accounting, big data analysis, information technology and other related courses. Only 28% of colleges and universities have realized the content linkage between tax law courses and big data analysis courses, failing to form an integrated ability training system of "tax law + digital technology + comprehensive practice" . Second, the proportion of theoretical and practical courses is seriously imbalanced. In most colleges and universities, theoretical teaching accounts for more than 75% of the total tax law courses, while practical teaching accounts for less than 25%. The practical links are mainly simple tax declaration simulation, accounting for more than 60% of the practical content, and lack of digital and scenario-based comprehensive training for tax inspection, tax planning and tax risk control. The penetration rate of tax virtual simulation laboratories is only 35%, which is difficult to support the formation of students' digital operation ability[10].

3.3 Serious Homogenization of Teaching Organization, Difficulty in Implementing Differentiated Teaching

Tax law teaching in colleges and universities generally adopts a homogenized teaching model of "unified syllabus, unified progress, and unified assessment", without fully considering the differences in students' professional foundation, learning ability and career planning. [11]According to the survey data on the teaching of finance and taxation majors in Chinese colleges and universities, in the same tax law course class, about 30% of students have difficulty keeping up with the teaching rhythm due to weak foundation, and about 40% of students with surplus learning capacity have insufficient learning enthusiasm due to the lack of expansion space . At the same time, the teaching method is still dominated by classroom lectures, with case teaching and practical teaching accounting for less than 30%. Most of the cases are simple tax-related cases in traditional industries, lacking comprehensive and complex cases under the digital economy background, which cannot meet the learning needs of students at different levels, making it difficult to implement teaching students in accordance with their aptitude .

3.4 Imperfect Curriculum Management and Evaluation Mechanism

At the curriculum management level, more than 0% of tax law courses in colleges and universities are separately managed by professional teaching and research offices, lacking school-level overall planning and cross-departmental collaboration mechanisms. [12]The resource integration between finance and taxation majors, computer teaching departments and training centers is insufficient, resulting in slow progress in modular curriculum design and digital teaching resource construction . At the teaching evaluation level, the final written examination is still the main form, accounting for 60%-80% of the total score. The assessment content focuses on the memory of tax law provisions and simple calculation, while the evaluation of digital application ability and comprehensive practical ability accounts for less than 20%. Only 15% of colleges and universities have introduced industry evaluation and third-party evaluation, and have not established a graduate career development tracking mechanism, so the evaluation results cannot provide effective feedback for curriculum system

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optimization .

4. Overall Design of the MG Model Application in the Optimization of the Tax Law Curriculum System

Through the dual path of "modular content reconstruction + hierarchical grouping teaching implementation", the MG model can effectively respond to the new requirements of the digital economy for tax law courses, and realize the transformation of the curriculum system from knowledge-oriented to ability-oriented.

4.1 Optimization Ideas

Guided by the demand for tax talents in the digital economy, and supported by Curriculum Development Theory and Competency-Based Education Theory, this study uses the MG model to systematically reconstruct the tax law curriculum system. In terms of curriculum content, it breaks the traditional linear chapter structure and builds a modular curriculum framework in accordance with "basic ability - professional ability - digital technology ability - comprehensive practical ability". In terms of teaching implementation, it implements hierarchical grouping teaching according to students' differences to achieve precise teaching organization. In terms of management guarantee, it improves the curriculum coordination mechanism, resource allocation mechanism and quality evaluation mechanism from the perspective of educational administration, and finally forms a new tax law curriculum system with reasonable structure, clear levels, digital integration and outstanding practice.

4.2 Construction of the Modular Tax Law Curriculum System Under the MG Model

In accordance with the progressive logic of ability training, this study divides the tax law curriculum system into five interrelated modules, which not only ensures the integrity of the knowledge system, but also facilitates the dynamic update of module content according to the development of the digital economy and tax policy changes. The specific structure is shown in Table 1.

Table 1: Construction of the modular tax law curriculum system under the MG model.

Module Level	Core Module Composition	Main Teaching Content	Ability Training Orientation
Basic Theory Module	Fundamentals of Tax Law, China's Tax System, Tax Jurisprudence	Basic principles of taxation, basic systems of various taxes, calculation of tax payable, basic process of tax collection and administration	Cognition of basic tax law knowledge and basic calculation ability
Core Practice Module	Tax Administration, Tax Planning, Tax Inspection, Tax Declaration Practice	Tax compliance, tax planning methods, tax inspection process, tax-related dispute resolution	Comprehensive tax-related handling and compliance management capabilities
Digital Technology Module	Tax Informatization, Finance and Taxation Big Data Application, Electronic Invoice Practice	Golden Tax Project Phase IV system operation, tax-related data collection and analysis, intelligent declaration, tax risk model construction	Digital tax operation and data application capabilities
Comprehensive Practice Module	Virtual Simulation Training, Tax-related Case Analysis, Corporate Tax Projects	Whole-process tax declaration simulation, digital risk control drill, real corporate tax plan design	Comprehensive practice and problem-solving capabilities
Expansion and Innovation Module	Special Topics on Digital Economy Taxation, New International Taxation Rules, Frontier of Tax System Reform	Platform economy taxation, cross-border digital transaction taxation, blockchain application in taxation	Innovative thinking and frontier research judgment capabilities

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4.3 Implementation Path of Hierarchical Grouping Teaching

On the basis of the modular curriculum, hierarchical grouping teaching is implemented according to students' academic foundation, learning ability and development intention, forming a differentiated teaching organization system. The hierarchical grouping is not fixed, and can be dynamically adjusted according to students' learning progress, so as to truly realize teaching students in accordance with their aptitude. The operation logic is shown in Figure 1.

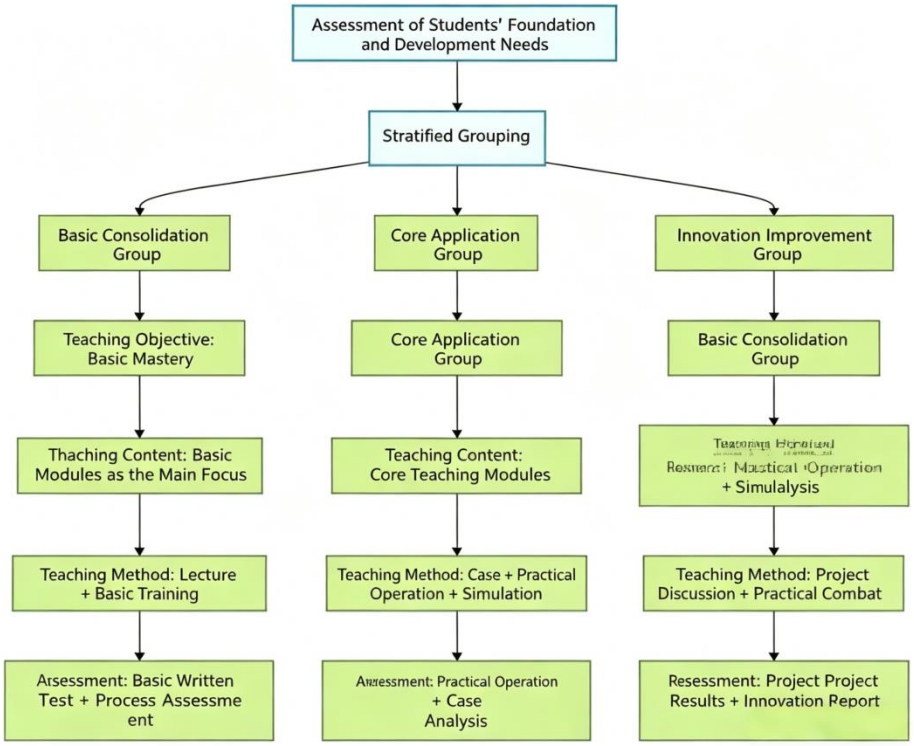

Figure 1: Operation logic diagram of hierarchical grouping teaching under the MG model.

5. Implementation Guarantee for the Optimization of the Tax Law Curriculum System under the MG Model

From the perspective of educational administration, the effective implementation of the curriculum system reform depends on the soundness of the supporting guarantee mechanism. This study puts forward a four-dimensional guarantee system from the aspects of organization and management, faculty construction, resource allocation and quality evaluation.

5.1 Improve the Organization and Management Mechanism and Strengthen Overall Coordination

Colleges and universities should establish a curriculum construction committee led by the academic affairs office, with the participation of finance and taxation majors, computer teaching departments, and training centers, to coordinate the modular curriculum design, hierarchical teaching organization and cross-departmental resource coordination. The person in charge of each module should be clearly defined, the modular teaching specifications and hierarchical teaching management system should be formulated, and the curriculum optimization should be included in the professional construction and teaching quality assessment system, so as to form a clear, coordinated and efficient curriculum management pattern .

5.2 Strengthen Faculty Team Construction and Build an Interdisciplinary Teaching Team

Efforts should be made to build an interdisciplinary teaching team with both professional tax law literacy and digital technology application capabilities. On the one hand, through on-campus training, special seminars and online course learning, improve the ability of full-time teachers in tax big data, intelligent financial software and virtual simulation teaching . On the other hand, strengthen school-

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local and school-enterprise cooperation, hire business backbones of tax authorities, corporate financial directors, and digital tax experts as part-time teachers to participate in module teaching and practice guidance, so as to optimize the structure of "dual-qualification" teachers.

5.3 Promote the Construction of Teaching Resources and Consolidate the Foundation of Digital Teaching

Colleges and universities should accelerate the construction of a digital teaching resource library matching the modular curriculum, including modular courseware, micro-lecture videos, new format tax case libraries, tax-related data sets, and intelligent training software. They should build an online and offline hybrid teaching platform to support the release of modular learning tasks, hierarchical assignment management, process data recording and personalized tutoring . They should also improve hardware facilities such as tax virtual simulation laboratories and financial big data training platforms to provide support for digital practical teaching.

5.4 Build a Diversified Evaluation System and Form a Closed-Loop Management Mechanism

Colleges and universities should construct a diversified curriculum evaluation system compatible with the MG model. They should change the single summative assessment method, and implement the combination of process assessment and result assessment, knowledge assessment and ability assessment, as well as unified basic indicators and hierarchical development indicators. They should introduce industry evaluation and third-party evaluation, regularly track the career adaptation of graduates, and reversely promote the update of curriculum module content and the optimization of teaching methods, forming a closed-loop management mechanism of "implementation - evaluation - feedback - improvement", so as to continuously improve the adaptability and effectiveness of the tax law curriculum system .

6. Conclusions

The sustainable development of the digital economy and the digital transformation of tax governance have put forward systematic reform requirements for the tax law curriculum system in colleges and universities. The traditional curriculum model centered on knowledge teaching and characterized by homogenized teaching has been difficult to adapt to the needs of tax talent training in the new era. Through the modular reconstruction of curriculum content and the hierarchical grouping optimization of teaching organization, the MG teaching model conforms to the systematic requirements of Curriculum Development Theory and the practice orientation of Competency-Based Education Theory, and can effectively solve the problems of lagging content, rigid structure, single teaching method and weak practice of the current tax law curriculum.

In the process of promoting the optimization of the tax law curriculum system, colleges and universities should, from the perspective of educational administration, strengthen top-level design and overall management, scientifically construct a modular curriculum structure, flexibly implement hierarchical grouping teaching, and support the reform with complete faculty, resource and institutional guarantees. It is necessary to promote the transformation of tax law teaching from knowledge inculcation to ability training, and from the traditional offline model to the digital integration model, so as to cultivate more compound tax professionals who are proficient in professional tax law knowledge and have digital technology application capabilities, and better serve the modernization of national tax governance and high-quality economic and social development.

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