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Innovation of Talent Training System of Interdisciplinary Integration of University Economics and Management under the Background of New Liberal Arts Construction

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Abstract: The proposal of the construction of new liberal arts puts forward a new reform direction for the development of humanities and social sciences in higher education in China in the new period. The scientific and technological revolution with artificial intelligence and big data as the core promotes the transformation and upgrading of traditional liberal arts to new liberal arts. In this paper, taking Zhangjiajie College as an example, under the background of the construction of new liberal arts, through the digital reconstruction of courses, collaborative innovation between industry and education, dynamic evaluation mechanism, which this paper explores and practices the education and teaching reform path of the integration of undergraduate economics and management under the background of new liberal arts, in order to provide reference for the talent training of new economic and management education reform in local private application-oriented universities, so that we can realize the development from "single management skills" to "data-driven decision-making", and to enhance the core competitiveness of talents in the era of digital economy.

Keywords: New Liberal Arts; Interdisciplinary Integration of Economics and Management; Talent Training System Innovation;

1. Introduction

The concept of "New Liberal Arts" was first proposed by Hiram College in the United States in 2017. Its soriginal intention was mainly to reorganize traditional liberal arts disciplines, integrate arts and sciences, and incorporate new technologies into courses such as philosophy, literature, and languages, providing students with comprehensive interdisciplinary learning. The construction of new liberal arts in China began in 2018, when a document is to "strive to develop new engineering, new medicine, new agriculture, and new liberal arts" (referred to as the "Four New" construction), formally introducing the concept of "new liberal arts." In April 2019, the Ministry of Education, the Ministry of Science and Technology, the Ministry of Finance, and other departments jointly held the "Six Excellences and One Top-notch" Plan 2.0 launch conference in Tianjin, fully promoting the "Four New" construction.

Thus, "new liberal arts" moved from concept proposal to formal implementation. In November 2020, the National New Liberal Arts Construction Work Conference was held at Shandong University, where the New Liberal Arts Construction Working Group released the "New Liberal Arts Construction Manifesto," making a comprehensive deployment for the construction of new liberal arts and outlining the "construction blueprint" for the new liberal arts construction. [1] New Liberal Arts is the empowerment and upgrading of traditional liberal arts majors by new technologies, an important mission for the strategy of strengthening the nation through education, an inevitable requirement for the fundamental task of fostering virtue through education in colleges and universities, and a contemporary response to the construction of the talent cultivation system. The School of Economics and Management at Zhangjiajie University is a secondary teaching college focused on economics and management disciplines. Based on the sort out the value concepts, knowledge systems, ability structures, and quality requirements corresponding to the positions in the economic and management fields, it has further clarified the core literacy of applied economic and

management talents. The technological revolution centered on artificial intelligence and big data is driving the transformation of economic and management majors from "theoretical teaching" to "technological integration". Economic and management majors belong to applied liberal arts and are influenced by a new round of technological and industrial revolutions centered on artificial intelligence, big data, the Internet of Things, and cloud computing. The updating speed of economic management knowledge and skills is accelerating, triggering profound changes in the ways of knowledge acquisition and teaching, and the relationship between teaching and learning, providing important paradigms and methods for studying economic and management issues, and an indispensable part of the knowledge structure and ability cultivation for economic and management professionals. Cultivating "new economic and management" talents to meet the needs of economic and social development in the new era has become a new topic in higher finance and economics education.

Based on the important mission of the new liberal arts to cultivate new people for the era while this article serves the strategy of strengthening the nation through education, takes the example of Zhangjiajie University. Through paths such as the digital reconstruction of courses, collaborative innovation in industry and education, and dynamic evaluation mechanisms, it systematically reforms the knowledge structure and ability framework of talents. [2] It explores and practices the reform paths of undergraduate new financial and economic education in local universities under the context of the new liberal arts, aiming to provide a reference for the reform of talent cultivation in local private applied universities' new economic and management education. This is intended to achieve a leap from "single economic and management skills" to "data-driven decision-making".

2. Reform Pathing

In accordance with the overall deployment and requirements of the construction of the new arts, based on the new era, focusing on the tube of professional characteristics, combined with the situation of economic management problems, the integrated use of big data, artificial intelligence, with talent training mode, professional system construction, curriculum system and classroom teaching quality improvement as the breakthrough point, the tube of traditional professional talent training concept, mode, content and method of upgrading.

2.1 Technology Empowers Curriculum Restructuring

Economics and management courses accelerate the integration of data science, and promote the transformation of traditional economics and management to digitalization. Upgrade of digital tool curriculum system, modular teaching of tool skills course. The digital tool courses such as Python data analysis and blockchain finance are integrated into the curriculum system, covering 100% of students' cultivation of digital technology application ability. Intelligent decision system (such as dynamic pricing algorithm and supply chain optimization model) is introduced as the teaching carrier to improve students' data modeling and analysis ability. Digital technology modules are integrated into traditional courses, such as "Strategic Management" course, adding "platform strategy", "low-carbon digitalization" and other cutting-edge content to carry out practical teaching. Develop cross courses such as "Data Mining and Business Intelligence" and "Computing and Artificial Intelligence Concept" to transform the theoretical innovation and scientific research achievements in the digital era into teaching content [3].

2.2 Reconstruction of the Interdisciplinary Curriculum System

Refactoring the "AI + X" emerging cross-curriculum system. Build micro-specialty groups such as "AI + Finance" and "AI + Supply Chain", strengthen the cross-application of statistics, econometrics and big data technology, cultivate top-notch innovative talents across disciplines, and implement cross-combination between economic and management disciplines and humanities; and integrate multi-disciplinary knowledge through cross-semester project-based courses (such as Unified Robotics). Courses such as "Digital Trade" and "Cross-border E-commerce Platform Operation" are offered, embedded in

the practical modules of real platforms such as Ali International Station and Shopee, to promote the deep integration of business and information technology. Industry case-driven course students. Integrate enterprise desensitization data (such as intelligent manufacturing production line logs and retail consumption behavior data) to build case databases, covering real business scenarios such as production scheduling and carbon trading simulation. [4] Develop provincial projects such as "Cross-border E-commerce Bonded Import Virtual Simulation System", realizing digital practical training in the whole process of product selection, customs declaration and marketing, and the proportion of practical teaching has increased to 35%.

2.3 Value Shaping, Ideological and Political Leading

Strengthen moral education and cultivate people is the logical starting point of "new economic management" talent training, and also the final destination of "new economic management" talent training. Ideological and political theory course is the key course to implement the fundamental task of moral education. [5] The concept of "strengthening the foundation and casting the soul" which runs through the whole process of talent training, and is integrated into professional courses through red culture and regional industrial cases (such as "management" and "accounting foundation") to realize the organic unity of knowledge transmission and the cultivation of national feelings. The construction of "three complete education" pattern, "curriculum ideological and political" organically integrated into the curriculum teaching. In the teaching of general courses such as "China Business Gang", "Lake Business Lecture Hall" and "History of Management Thought", patriotism, national feelings and Lake business spirit are permeated into it to enhance students' cultural consciousness and cultural confidence. With the orientation of "benefiting the people, being virtuous and honest", the students in the professional courses such as Western Economics, Management, Economic Law are guided to pay attention to social phenomena, analyze social problems, and cultivate the professional quality of benefiting the world, honest service, and practicing morality and law. In various practices such as "Internet +'Competition", "Youth Red Dream Tour" and "Volunteer Service for College Students", it emphasizes "root", "labor education" and "aesthetic education", and encourages students to take root in the land of China as a social classroom to temper their character.

2.4 The Deep Integration of Professional Education and Ideological and Political Elements

We should follow the Guidelines for Ideological and Political Construction of Courses in Higher Education, break the "two skins" phenomenon of professional education and ideological and political education, and embed ideological and political modules such as compliance management and data ethics in courses such as digital economy. Through the reconstruction of the "new liberal arts" curriculum system, the latest theoretical achievements of China's construction (such as common prosperity and two-carbon strategy) will be transformed into teaching resources, and the values of "doing business and helping the world" and "governing the country" will be shaped.

2.5 A "Concerto" for Cultural Education and Environmental Beautification

Build the "trinity" education framework. Follow the Guidelines for Ideological and Political Construction of Curriculum in Institutions of Higher Learning, with "value guidance + professional integration + digital empowerment" as the core, form a collaborative education system covering curriculum, practice and teachers, and promote the simultaneous resonance between professional education and ideological and political education. Through the reconstruction of the "new liberal arts" curriculum system, the national economic development strategy (such as carbon peak and rural revitalization) will be incorporated into the curriculum design to strengthen students' strategic thinking and social responsibility. Break the phenomenon of "two skins" between professional education and ideological and political education, and embed ideological and political modules such as compliance management and data ethics in courses such as digital economy, so as to shape students' values of "doing business and helping the world" and "governing the country".

3. Continuously Optimize the Professional Structure

The development of the new generation of information technologies such as big data, Internet, cloud computing, artificial intelligence and blockchain has completely overturned the traditional thinking of disciplines and majors. The boundaries of disciplines and majors are becoming more and more blurred, and the intersection and integration of disciplines are becoming more and more obvious and common.

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3.1 Docking of Regional Strategies and Industrial Needs

Based on the new era, focusing on the characteristics of economic and management disciplines, combined with the economic management problems in China situation, the linkage mechanism of "national strategy-regional industry-discipline construction" is established, and the professional layout is dynamically optimized according to the regional pillar industries (such as new energy and intelligent manufacturing). Comprehensive use of big data, artificial intelligence and other information technologies, the integration of real-time industrial Internet data, enterprise desensitization case database, to the traditional professional class of economics and management talent training program iteration. [6] Build the "regional industry-education integration data center", implement the "enterprise on-site workstation" mode, introduce regional leading enterprises to participate in course development and practical training design, industry scene and digital technology integration. Develop the course of "Regional Characteristic Industry Sand table", embed the real business scenarios, and cover the whole chain practice of production, logistics and finance. Modules of "Regional Industrial Chain resilience analysis" and "Platform Economy and Regional synergy" are added to courses such as Digital Economy and Strategic Management to strengthen students' cognition of regional economic ecology. Construction of digital and intelligent teaching resources. Provincial platforms such as "Intelligent Manufacturing Flexible Arrangement Virtual Simulation System" have been built to support students in online simulation production optimization and cost control. Blockchain technology is used to build a "regional carbon trading sand table" to realize the interdisciplinary training of carbon emission tracking and green financial product design.

3.2 Adhere to the "Digital Wisdom Support", Upgrade and Transform Traditional Majors to Adapt to the Development of Digital Economy and Society

We promote the deep binding of economic and management majors and local industrial clusters, and implement cross-combination between the two disciplines and humanities of the School of Economics and Management. Implementation of "first-class professional construction" plan, with electronic commerce, accounting and so on two tube professional field first-class professional construction point for construction opportunity, combined to meet the new needs of regional social and economic development, focus on personnel training scheme, curriculum system design, classroom teaching mode optimization, promote the development of professional connotative.

3.3 Cross-Integration, Build an Interdisciplinary Integration Curriculum System, and Promote the Digital and Intelligent Reconstruction of the Curriculum System

Focusing on curriculum construction, relying on professional transformation, implementing digital concepts such as artificial intelligence, big data and information technology into curriculum construction, carrying out cross-integrated curriculum group construction, and building five interdisciplinary curriculum groups: "Internet +", "," Big Data + "," Artificial Intelligence + "," Economic management + "and" cutting-edge curriculum + ". [7] With comprehensive revision in 2020 talent training plan as an opportunity to

implement 2.5+0.5+1 talent training mode, the Internet, big data, cloud computing, artificial intelligence and other information technology embedded curriculum system, on the basis of the traditional management class professional upgrade to promote interdisciplinary, professional integration, build with the characteristics of tube class curriculum system. In freshman, sophomore general education course module to add some courses related to big data, such as: database application, pathon business data analysis, Access database programming and computer courses related to big data, set the big data and the application of machine learning, Internet of things technology, cloud computing, universe, block chain and its application of information technology and application of lecture courses; In junior and senior professional courses, based on big data, artificial intelligence technology to support the management practice problem solution and research paradigm, build the two categories of professional cross course knowledge module and teaching case, such as: digital economy and cross-border electricity development, data grab technology in the application of modern tax audit, financial management, wisdom, logistics management, supply chain management, etc. At the same time, based on the actual business and specific projects, the joint enterprises design unified practical training projects in terms of professional knowledge and ability training, and build a series of project-driven practical training micro-class groups.

3.4 Innovation of Industry-education Coordination and Ability Evaluation Mechanism

School and enterprise jointly build a practical teaching platform. Cooperate with enterprises and financial institutions to carry out project-based teaching (such as blockchain financial case analysis, digital supply chain optimization), and strengthen the practical ability through the "double tutorial system". [8] Relying on the virtual simulation experiment platform (such as intelligent investment consulting system simulation) and the industry and education integration base, the deep integration of theoretical teaching and industrial scene is realized.

Dynamic evaluation and feedback optimization. The two-dimensional assessment of & quot; process evaluation + achievement oriented& quot; is adopted to include students&# 039; participation in enterprise research and entrepreneurial projects into credit recognition. Establish a tracking database of graduates' career development, and reverse optimize the course system (such as employment quality and enterprise feedback, such as adjusting compliance management and network optimization).

4. Build a Ubiquitous Learning Space and Promote the Intelligent Empowerment of Teaching Mode

Relying on big data, block chain, meta-universe, Internet of Things and cloud computing technology, the intelligent classroom of "physical space + resource space + community space" is built, realizing the whole-process collection and dynamic optimization of teaching data through environment sensing equipment, and forming an interactive teaching ecology that supports personalized learning. Create an immersive teaching environment. Real business scenarios are integrated into classroom teaching to strengthen students' practical perception of complex economic problems. Using digital twin technology to build a "cloud laboratory", and support students to participate in enterprise real project development (such as cross-border e-commerce operation and green financial product design) through remote terminals, so as to realize the deep connection of "integration of production, learning and application". Optimize the teaching mode innovation and classroom ecology. [8] The combination strategy of "MOOC + SPOC + flipped classroom" is adopted: online basic knowledge transfer is completed through micro-courses, and offline case discussion is focused to improve classroom interaction and student participation. Strengthen the integration of PBL (project-based learning) and CBL (case teaching), design interdisciplinary projects around the pain points of enterprise digital transformation, realize multi-role collaboration by relying on cloud collaboration tools, and cultivate the comprehensive ability to solve complex problems.

5. Implement the "Integrated Competition and Training" Project

Discipline competition and professional training are important starting points for "new economic and management" talent training. In the background of the rapid development of digital economy, the implementation of the "competition and training integration" project in economic management majors should take the cultivation of practical ability as the core and build a multi-dimensional collaborative education system. [9] We build the integration of "competition + training" practice teaching mode, promote the tube two kinds of professional practice mode reform, through the competition scenario simulation real industry demand, focus on solving the problem of students "skills and post mismatch", let more students in professional training field stronger, more professional competition training, to improve students' comprehensive practice ability and employment competitiveness.

5.1 Construction Logic of Diversified Competition System

Target positioning: With the core concept of "learning, training, research and application", the capability framework covers three capability areas: data thinking, technical tool application (such as big data analysis, blockchain), and economic decision simulation. Coordination mechanism: Establish a tripartite resource exchange mechanism of "school-enterprise-competition platform", and enterprise mentors participate in more than 20 teaching sessions annually to ensure the real-time integration of industrial needs into teaching. The whole process simulation decision-making competition. Through the "College Student Management Decision Simulation Competition", the enterprise strategy decision simulation platform is built, covering the core links such as capital budget, marketing and production operation, and requiring students to complete team cooperation and risk control in the dynamic market environment. The competition sets a three-level advanced mechanism of preliminary, semi-final and final, covering the whole cycle training from strategic planning to implementation.

5.2 Digital Intelligence Sand Table Confrontation Training

The project of "competition and training integration" should take the intelligent sand table confrontation training as the core, and build a practical ability training system of virtual and reality and dynamic iteration. Based on the enterprise operation sand table simulation system to carry out the school competition, using digital intelligence technology to build a virtual business environment, Curriculum system reconstruction: modular curriculum design, setting up the third-order curriculum chain of "basic theory- -tool application- -practical simulation", integrating sand table confrontation into the course modules such as enterprise digital intelligence transformation, big data analysis and decision-making, and strengthening the training of key skills such as data modeling and supply chain optimization. [10] Develop a sand table case database covering intelligent manufacturing, green finance and other fields, and integrate the real industry data sets (such as energy scheduling data and carbon emission trading data). Deep embedding of digital intelligence tools: introduce intelligent decision system (such as Python financial big data analysis tool), enterprise intelligent operation sand table platform, support dynamic pricing, risk prediction and other scenario simulation. Blockchain and Internet of Things technology are integrated to build a virtual simulation environment to realize data visualization and real-time decision-making feedback of the whole process of enterprise operation. The results of the competition are directly connected with the selection of provincial A-class competition, forming the joint training mechanism of "school competition-provincial competition".

5.3 Innovative Competition Mechanism, and Deep Integration of Competition and Course

Establish a dynamic competition and training coupling mechanism. Taking the national sand table competition (such as the national Digital Intelligence Enterprise Operation sand table Competition of Universities) as the benchmark, the competition rules are reverse implanted into the course assessment standard, and more than 90% of students are required to complete more than 3 rounds of complete confrontation cycle. Jointly design the "proposition competition + free competition" double course: The proposition competition focuses on

industrial pain points (such as energy scheduling algorithm optimization), and the free competition encourages business model innovation. Credit system competition project. The competition is incorporated into the practical curriculum system. For example, the course "Enterprise Management imitation Real Training" requires cross-major students to form a team to complete the concentrated training in 10 days by simulating the scenarios of enterprise registration and operation decision, and the competition results are included in the course assessment. Achievement transformation incentive. [11] The winning scheme should be recommended to the enterprise incubation platform. For example, the photovoltaic power prediction model can be directly connected to the regional energy management system. A "credit replacement" system should be established, and national competition awards can replace traditional course credits to stimulate students' motivation to participate.

5.4 Practical Training of School-enterprise Cooperation

Curriculum system reconstruction: deep embedding of enterprise cases. Modular course design. Course modules such as "enterprise digital intelligence transformation" and "Big data Decision analysis" are set up to transform real cases of enterprises (such as supply chain optimization and carbon trading simulation) into sand table confrontation tasks, forming a third-order training chain of "theoretical teaching + sand table deduction + project review". Develop industry customized case database, integrate enterprise desensitization data (such as intelligent manufacturing production line data and financial risk control model), and cover core business scenarios such as production scheduling and marketing strategy. Enterprise mentor collaborative teaching. Introduce enterprise technical backbone to serve as "industry mentor", participate in more than 20 practical teaching sessions annually, and jointly develop dynamic confrontation question bank (such as extreme market environment simulation and sudden supply chain interruption response). Through the mechanism of "enterprise proposition competition", real business problems (such as energy scheduling algorithm optimization and cross-border e-commerce inventory management) are transformed into competition tasks, so as to realize "real problems" and "real practice" "and strengthen students' ability to solve practical business problems. Dual tutorial system competition guidance. The joint guidance team of "academic mentor + enterprise mentor" will provide special training of strategic analysis tools (such as SWOT model) and supporting multi-role collaborative decision-making (production director and financial director in high-level competitions such as provincial and national competitions. [12] Deep fusion of virtual and real scenes. Build the digital and intelligent sand table system. Build an "enterprise-level sand table confrontation platform" and integrate the dynamic market data interface (such as real-time production data of industrial Internet platform and financial transaction market). Enterprise resource pool sharing. Establish the "industry-education integrated data middle platform", and call the real data sets of enterprises (such as manufacturing equipment operation log and retail consumption behavior data) to drive the update of sand table parameters, so as to ensure the synchronous iteration of training scenarios and industrial requirements. Docking with the enterprise management system (such as ERP and SCM), opening some functional permissions for students to practice, such as optimizing the "order-production-logistics" full link through the supply chain sand table simulation.

6. Conclusion

We adjust the discipline layout, deeply bind economic management majors with science and technology, humanities and other disciplines, and innovate the curriculum system and reshape the ability matrix, through curriculum digital reconstruction, collaborative innovation between industry and education, dynamic evaluation mechanism, interdisciplinary platform construction and resource integration. The "Intelligence +" course module is developed, and interdisciplinary integrated courses such as artificial intelligence and big data are embedded in traditional majors, and the system of "micro-major + course group" is built to strengthen students' digital literacy. The "Intelligence +" course module is developed, and interdisciplinary integrated courses such as artificial intelligence and big data are

embedded in traditional majors, and the system of "micro-major + course group" is built to strengthen students' digital literacy. Production-education cooperation and practical ability improvement. Joint training and scene teaching, the implementation of "training integration" engineering path, economic and management interdisciplinary integration personnel training based on interdisciplinary, digital technology as the wing, teaching synergy for nuclear, by reconstruct the curriculum system, build scientific research teaching linkage platform, innovation combined with practice scenario, cultivate both "humanities background + technology thinking + business insight" interdisciplinary talents.

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