

Construction and Practice of the “Five-Dimensional Collaborative” Teaching Ecosystem from the Perspective of New Liberal Arts

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Abstract: Against the backdrop of the new liberal arts, universities have always adhered to and implemented the educational philosophy of “student-centeredness” in their teaching, deeply exploring and continuously unleashing the powerful potential of teaching innovation. Taking the “Management” course as an example, this paper, on the basis of in-depth analysis of teaching pain points, fully considers the era background and development trend of new liberal arts education, carefully identifies and refines five key elements: “Xin (Fragrance)”, “Xin (Heart)”, “Xin (Faith)”, “Xing (Action)”, and “Xing (Star)”, and constructs a comprehensive teaching ecosystem with students as the main body: “Creation of high-quality and all-round systematic educational situations”, “Reconstruction of three-dimensional teaching content that highly integrates cognitive and psychological development”, “Integration of moral education and faith-building into the internalized curriculum value”, “Integration of diversified teaching methods that closely combine theory and practice”, and “Optimization of digital and intelligent assessment and evaluation with multi-dimensional indicators and multiple subjects”. Based on this, we have constructed a five-dimensional teaching ecosystem for management teaching, mapping out a new path for cultivating talents in the new era.

Keywords: New Liberal Arts; Five Dimensions; Teaching Philosophy; Teaching Ecology

1. Introduction

The “Four New” construction strategy in 2018 brought “New Liberal Arts” into public view as a core direction for the connotative development

of higher education [1]. The release of the “Declaration on New Liberal Arts Construction” in 2020 marked that the construction of New Liberal Arts has moved from theoretical exploration to a stage of comprehensive practice. Its core essence lies in breaking down disciplinary barriers, adhering to a problem-oriented approach, responding to social concerns, and building China’s independent knowledge system and talent training system [2]. Against this background, traditional liberal arts courses are facing the practical dilemma of unbalanced development, and how frontline teaching can break through inherent models and achieve inheritance and innovation has become a key issue that needs to be addressed urgently [3]. Based on the core of New Liberal Arts construction and the current teaching situation of the “Management” course, this paper proposes a “five-dimensional” teaching concept, aiming to create a teaching ecosystem “centered on students, oriented by problems, and supported by practice” through the organic integration of five dimensions. This concept not only responds to the core requirement of “inheriting the essence and innovating” in New Liberal Arts [4]; but also aligns with the goal orientation of “holistic person cultivation” in modern education. Through multi-dimensional collaborative efforts, it realizes the comprehensive improvement of students’ knowledge, abilities, and qualities [5]. This paper will systematically elaborate on the connotation and practical paths of the “five-dimensional” teaching concept, providing reference for the teaching reform of “Management” and related liberal arts courses under the background of New Liberal Arts.

2. The Necessity of Carrying out Teaching Innovation in New Liberal Arts Courses

As a core foundational course for economics and management majors, the “Management” course

has the dual characteristics of being both theoretical and practical, as well as scientific and humanistic. Its teaching quality directly affects the effectiveness of cultivating interdisciplinary management talents. However, there are still many pain points in the current teaching of “Management”. For example, the solidification of disciplinary boundaries leads to students’ insufficient ability to solve problems across fields [6] and other issues. These problems not only restrict the full play of the educational value of the course, but also have a significant gap with the concepts advocated by the new liberal arts, such as “interdisciplinary integration, digital transformation, and adherence to humanism” [7]. The construction of new liberal arts emphasizes “the creative transformation of tradition and modernity, the in-depth integration of disciplines and technology, and the two-way empowerment of knowledge and practice” [8], which provides a fundamental basis for the reform of the “Management” course. Some scholars have pointed out that under the background of new liberal arts, the reform of curriculum teaching needs to achieve three transformations: “from knowledge imparting to ability training, from discipline-based to problem-oriented, and from closed classroom to open ecosystem” [9]. The development of digital technologies such as artificial intelligence and big data has provided technical support for curriculum teaching, promoting the teaching model from closed to open [10]; while the trend of interdisciplinary integration requires the course to break down the barriers between liberal arts and sciences, and build a multi-dimensional knowledge system and ability framework [11]. In this context, exploring a “Management” teaching model that adapts to the concept of new liberal arts is not only the internal need for the course to improve its quality and efficiency, but also an inevitable choice for cultivating modern management talents with professional literacy, innovative thinking and social responsibility [12]. In the current process of building new liberal arts courses, there are still many practical problems, as shown in Figure 1.

2.1 Question 1: Emphasizing the Learning of Static Knowledge While Neglecting the Improvement of Dynamic Abilities

Traditional teaching content is confined to the preset textbook framework, focusing on fixed

textbook knowledge, while ignoring the openness, growth, and timeliness of knowledge, and failing to keep up with and understand the dynamics of social development in a timely manner. Through follow-up research on students, it is found that, first, there is relatively little practical teaching content that combines current affairs and dynamics, and the introduction of high-level knowledge and cutting-edge research is insufficient. Second, the value guidance in professional courses is insufficient. Third, under the new era of educational environment, students’ demand for personalized learning is increasing. Students hope to have more practical teaching content and more knowledge points related to analysis and application, but the existing teaching content system is difficult to meet students’ personalized learning needs.

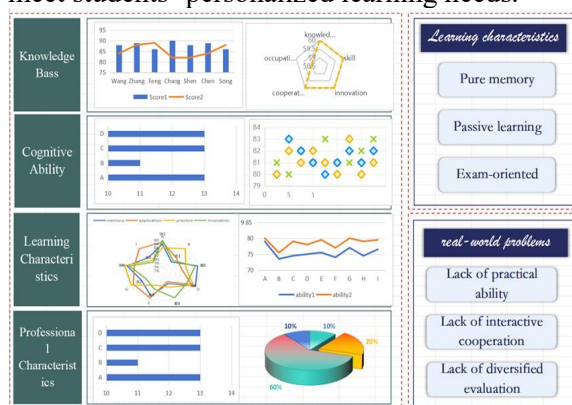


Figure 1. Analysis of Practical Problems in Curriculum Construction under the Background of New Liberal Arts

2.2 Emphasizing Passive Acceptance of Education While Neglecting Teacher-Student Interaction and Cooperation

Traditional classroom teaching “emphasizes one-way passive transmission and neglects two-way interactive collaboration”. Through research, it is found that, first of all, the teaching method is single-channel, and information technology resources have not been effectively infiltrated and deeply integrated; secondly, the construction of classroom situations is not sufficient, resulting in low frequency of teacher-student interaction and limited opportunities for team collaboration. Therefore, it is necessary to construct a systematic teaching situation, comprehensively use a variety of teaching methods, and realize diversified teaching activities. At the same time, information technology should be applied throughout the entire stage and the whole chain to break down classroom barriers.

2.3 Emphasizing the Goal Orientation of Examinations While Neglecting Multi-Dimensional Evaluation and Assessment

Through research and analysis, it is found that the phenomenon of students “studying for exams” is serious, and there is a large deviation between exam results and practical application abilities. The reasons are as follows: First, the assessment method dominated by examinations leads to a strong exam-oriented tendency, resulting in students lacking interest and enthusiasm, and lagging behind in the development of practical abilities and comprehensive quality. Second, the single assessment index makes it difficult to form a diversified, comprehensive and accurate evaluation of students, and unable to effectively identify and stimulate students’ personalized strengths and potential for all-round development. Third, in the context of the new era, the application of information technology and artificial intelligence technology in the evaluation and assessment system is insufficient, and there is a lack of building a refined growth model that can meet the needs of individual differences in development.

3. Specific Paths to Build a Teaching Ecosystem

Based on the five elements of “Xin (Warmth), Xin (Heart), Xin (Trust), Xing (Action), and Xing (Atar)”, this paper develops a teaching innovation model of “three full coverages, four domains linkage, and five-in-one integration”, as shown in Figure 2. The “three full coverages” reconstruct the teaching content. Through the “three news, three modernizations, and three integrations”, a three-dimensional reconstruction is carried out to directly address the drawbacks of “neglecting the expansion of dynamic knowledge and insufficient high-level cognition”. Relying on AI technology, it conducts accurate analysis of students’ learning situation, deeply integrates and meticulously reconstructs the teaching content, and constructs a knowledge system structure with distinct levels and rich dimensions. The “four domains linkage” creates teaching scenarios. Through the systematic creation of four major teaching scenarios, it overcomes the inherent limitations of “dull atmosphere, lack of interaction, and weak teamwork” in traditional classroom teaching and creates a warm teaching ecological environment.

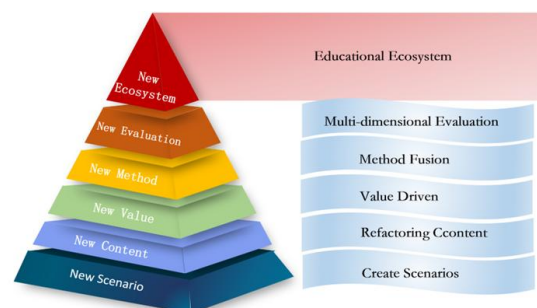


Figure 2. Ideas for Building a Teaching Ecosystem

3.1 “Xin” (Warmth): Carrying out Systematic Creation of New Situations

“Four-domain linkage”: Creating four major teaching situations. Situation creation is the foundation and soil; creating situations and building a warm atmosphere. The situational learning theory holds that learning is characterized by initiative, sociality, and situationality. How to build an all-round learning situation for students’ development? Based on the inquiry-based teaching thinking, this course has created a teaching situation ecosystem throughout the whole cycle, which consists of “Internet situation + digital intelligence empowerment”, “classroom situation + diversified interaction”, “enterprise situation + practical experience”, and “entrepreneurial situation + innovative exploration”. It provides a strong foundation for the improvement of students’ comprehensive abilities and innovative development.

3.2 “Xin” (Heart): Start the Three-Dimensional Content Reconstruction

“Three Full Coverages”: Reconstruct teaching content. Socrates said, “Education is not the filling of a vessel, but the kindling of a flame.” Centering on students’ cognitive development laws, psychological development needs, and emotional states, through the reconstruction of teaching content, we can stimulate learning interest and motivation, enrich their knowledge system and learning experience, and promote in-depth learning and the development of high-order thinking, etc. Focusing on the construction of core disciplinary literacy, the curriculum content is upgraded and reconstructed to meet the needs of higher education for innovative and interdisciplinary talents.

(1) Three new directions: For advanced knowledge points, reconstruct the content with “three news” (new practices, new demands, and

new theories). For example, integrate the practices of the domestic new energy vehicle industry, incorporate knowledge points of strategic decision-making and policy incentives to add content related to new practices. In response to the new demands of innovation and entrepreneurship, integrate relevant themes into course discussions. Incorporate research results such as the “innovation ecosystem” in the intelligent manufacturing industry from ongoing national key social science projects into the classroom to enrich students’ academic thinking. New technologies like knowledge graphs have powerful data update functions, which can timely absorb the latest research results and industry practice cases, ensuring that teaching content keeps up with the times and remains highly aligned with cutting-edge research.

(2) Three new tasks: For the key and difficult knowledge points in intermediate knowledge, reconstruct the content through “threeizations” (task-oriented, project-oriented, and case-oriented). Therefore, this is task-based teaching based on constructivism in educational theory, project-based practice following situational cognitive theory, and case-based simulation rooted in deep learning theory. Essentially, these three teaching methods aim to break the shackles of traditional indoctrinating teaching, realize the transformation of students from passively accepting knowledge to actively constructing knowledge systems, and achieve the organic integration of theoretical knowledge and practical abilities. For example, when dynamically matching incentive measures, carry out intelligent digital analysis and evaluation of demand matching based on artificial intelligence and digital technologies; design simulated business negotiation projects from the perspective of “college student village officials” and integrate themes such as “rural revitalization”, “common prosperity”, and “domestic and international dual circulation” to optimize community governance structures...

(3) Three new integrations: The construction of new liberal arts proposes to realize interdisciplinary integration and break disciplinary barriers. Based on the national strategic background, industry analysis, market demand, and new demands for talent cultivation, “Management” reconstructs its teaching content from three aspects: discipline integration, industry-education integration, and school-competition integration, so as to solve the pain

point of “neglecting the practice of dynamic capabilities”.

3.3 “Xin” (Faith): Carrying out Endogenous Value Guidance

“Integrating curriculum value guidance and demonstrating curriculum warmth” skillfully incorporates diverse contents such as “classic works”, “social mainstream values and humanistic care spirit” into professional courses, realizing the seamless connection between value education and professional knowledge in a subtle way, and cultivating students’ family and country feelings, social responsibility and humanistic spirit.

The course actively responds to the national development strategy, combines the characteristics of the times of new liberal arts education, and has developed a series of localized cases that are closely linked to China’s social reality and development needs. For example, the newly created “Clover Healthy Growth” case takes the mental health problems of left-behind children in China as the starting point, closely embeds entrepreneurs’ social responsibility and humanistic care spirit into the teaching content, and guides students to think deeply about how to embody the purpose of people-oriented and serving society in management practice. In addition, focusing on the two vivid practices of technological innovation and rural revitalization, namely “Meitan E-commerce Live Broadcast” and “Shimen Village Chili Road”, it vividly shows how entrepreneurs skillfully use new tools and methods such as e-commerce and technological innovation to effectively solve the problems of rural economic development and help the implementation of the rural revitalization strategy in the context of the new era. The case teaching method combining the adaptation of international classic cases and the development of localized cases reflects the flexible application of management knowledge, and more strongly demonstrates the educational theoretical appeal of education serving the national strategy and cultivating future management talents with family and country feelings and innovative spirit.

3.4 “Xing” (Action): Carrying out the Integration of Diversified Methods

The course takes the Seven-Step Teaching Method (Seven Stars Instruction) as the main

axis, organically integrates the advantages of Vygotsky's "Scaffolding Instruction" and "Cooperative Learning" teaching methods, and designs the "SSC" comprehensive teaching method aimed at enabling students to successfully master the knowledge system and build their self-learning ability.

Combining the characteristics of management courses, this course innovatively realizes the "Seven-Step" teaching method based on Merrill's "Five Stars" teaching method. Each link sets teaching sub-goals with certain "challenges and high-level nature", and skillfully integrates key points such as team collaboration, decision-making ethics, and social responsibility, so that students can deepen their understanding and recognition of the overall situation of national development, corporate social responsibility, and personal professional ethics while mastering professional knowledge of management.

For example, in the "Communication" chapter of the management course, scaffolding and anchored teaching methods are organically integrated to achieve a leap in teaching quality and efficiency. Aiming at the core issue of "improving the effectiveness of formal communication", the course carefully designed "Where will Qingshan Village go under the background of rural revitalization?" From the perspective of "college student village officials", it simulates business negotiation scenarios, uses scaffolding teaching, forms student groups with clear role divisions, and forms a step-by-step knowledge construction process. Teachers set up theoretical frameworks and practical strategy scaffolds to guide students to gradually master the art of communication in practice. At the same time, the course cleverly uses anchored teaching, selecting business cases with practical significance and emotional resonance as "anchors" to make students feel immersive and trigger in-depth participation. Teachers put forward questions at the right time to stimulate students to conduct in-depth thinking and exploration on the application and challenges of formal communication in complex business environments.

3.5 "Xing" (Atar): Conducting Digital and Intelligent Evaluation Optimization

"Five-in-One": Digital and intelligent assessment, full-process recording, and building a "4+1" five-star value-added evaluation system.

Centering on "student development" and considering both online and offline assessment indicators, digital and intelligent assessments are carried out. Multi-dimensional and multi-element teaching assessments stimulate students' innovative potential and present diversified learning outcomes. Design process-oriented assessment methods and incentive mechanisms, incorporate multi-dimensional and multi-element evaluation indicators into assessments, and introduce a point system of "setting up a point bank for learning" to form accurate, comprehensive, and objective evaluations of students, exerting its functions of diagnosing, regulating, and promoting student development.

We have made every effort to build a multi-dimensional, multi-element, dynamic, and intelligent teaching assessment system to realize real-time tracking and intelligent analysis of assessment data. By fully exploring and utilizing the potential value of big data, and applying new methods such as knowledge graphs to carry out precise and quantitative evaluations, it assists in teaching assessment and tracks learning feedback. It is closely linked with the teaching process assessment, using dynamic and accurate quantitative indicators to comprehensively reflect students' performance in multiple dimensions such as knowledge mastery, ability development, and emotional attitudes. At the same time, enrich and expand the content of process-oriented assessment, no longer limited to traditional single evaluation indicators, but incorporate diversified indicators such as students' personalized development and comprehensive quality improvement into the assessment and evaluation system to adapt to the requirements of quality education and lifelong education in the era. In addition, the course actively promotes the reform of diversification of assessment subjects, invites corporate mentors to participate in forming a dual-teacher joint evaluation system, and carries out three-dimensional and multi-level process-oriented assessments through the organic combination of self-evaluation, mutual evaluation, and third-party evaluation (such as evaluation by corporate mentors).

4. Conclusion

Drawing on the Management course as an empirical case, this research conceptualizes and operationalizes a five-dimensional collaborative teaching ecosystem. Empirical evidence

indicates that this framework not only establishes a theoretically grounded and practically actionable paradigm for curriculum reform in the New Liberal Arts context, but also materializes a student-centric educational approach that integrates knowledge dissemination, value orientation, and competency cultivation in a synergistic manner. Furthermore, this inquiry not only paves a novel pathway for the pedagogical innovation and advancement of management-related courses, but also furnishes a robust reference for other liberal arts disciplines to surmount long-standing teaching bottlenecks and cultivate versatile, future-ready talents capable of addressing the exigencies of the contemporary era.

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