

Innovative Models for Talent Training in Logistics Management at Regional Applied Research Universities under the New Liberal Arts Perspective—Based on the National First-Class Undergraduate Program Construction Perspective

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Abstract: Guided by theories such as demand theory, human capital theory, and modern pedagogy, this paper employs literature research, survey analysis, and comparative research methods. It investigates the talent training paths for logistics management majors in applied research universities under the new liberal arts background. The study explores various angles of talent training, including training concepts, objectives, systems, processes, evaluations, and improvements. The aim is to explore new paths for talent training in logistics management at regional applied research universities under the new liberal arts perspective, providing innovative strategies and case references for solving related challenges.

1. Introduction

Driven by national strategies, the construction of new liberal arts is becoming a hot spot in higher education reform. Regional applied research universities, as key bases for new liberal arts construction, bear the mission of cultivating practical talents to meet the needs of societal production. Logistics management, as a highly practical discipline, is particularly critical in this wave of reform. Compared to purely research-oriented universities, these institutions place greater emphasis on the close integration of education with local industries, prioritize industry-education integration, and focus on nurturing talents with practical operational abilities and applied innovation skills. However, constructing talent training models that deeply integrate with local industries and achieving seamless alignment between educational content and societal needs remain significant

challenges for regional applied research universities.

Domestically, the academic community has accumulated some research on talent training models in logistics management. Zhang Hua and others, taking Jiangsu University of Science and Technology as an example, emphasized the importance of constructing an industry-university-research collaborative education ecosystem to enhance talent training quality under the new liberal arts construction background [1]. Wang Jian and colleagues studied the talent training model for logistics management in regional undergraduate institutions and proposed a training plan centered on social needs and capabilities [2]. Li Na and others focused on constructing a practical teaching system for logistics management in applied undergraduate institutions, providing valuable guidance for improving students' hands-on operational abilities [3]. Gong Siyu and others explored the paths of industry-education integration in the transformation and development of regional undergraduate institutions, offering theoretical support and practical guidance for universities to serve local development [4].

Currently, research targeting "regional applied research universities" on "logistics management talent training models" remains underdeveloped, especially studies combining the perspective of new liberal arts. Specifically, after the declaration of new liberal arts construction in November 2020, scholars have explored curriculum reforms, industry-education integration, and curriculum ideology in logistics management under the new liberal arts background. However, most research is limited to one or a few courses. Comprehensive studies on industry-education integration and curriculum ideology for logistics management in regional applied research universities under the new liberal arts perspective are rare, indicating a significant research gap.

2. The New Liberal Arts Talent Cultivation Environment and Issues in Logistics Management at Regional Applied Research Universities

2.1 Innovation in Training Models: Integration of New Liberal Arts Concepts

Under the current backdrop of educational reform, regional applied research universities face a series of challenges in the cultivation of logistics management professionals. The introduction of new liberal arts concepts requires students to master not only specialized knowledge but also possess interdisciplinary knowledge integration abilities and innovative thinking. However, the current lack of interdisciplinary courses has led to insufficient knowledge reserves in emerging fields such as logistics and environmental science, and logistics and big data. This deficiency limits the formation of interdisciplinary thinking among students to a certain extent. Additionally, the pace of curriculum updates often lags behind industry developments, resulting in a disconnect between theoretical knowledge and practical application. The monotony of teaching methods also restricts the development of students' critical thinking and independent learning abilities, necessitating a shift towards seminar-based and case analysis teaching models. The advancement of personalized education faces similar challenges, as universities need to provide more diversified learning paths to cater to the varying needs of students. The inadequacy of faculty development, especially in recruiting practitioners with practical experience and enhancing teachers' interdisciplinary teaching capabilities, is a critical bottleneck in improving educational quality.

The establishment and improvement of education quality monitoring and evaluation systems also present urgent issues. The existing teaching evaluation and student feedback mechanisms may be inadequate, resulting in a lack of effective data support and feedback loops for optimizing the educational process, thereby affecting the continuous improvement of education quality.

2.2 Educational Transformation for the New Era: New Requirements for Talent Cultivation

With globalization and the wave of information technology sweeping through the logistics industry, the new era significantly raises the requirements for logistics management talent. The focus has shifted from merely traditional logistics operational skills to emphasizing innovative thinking, strategic planning, and a global perspective. The intelligent, green, and service-oriented transformation of the logistics industry demands higher comprehensive qualities from talent. Currently, numerous issues exist in the updating of curriculum systems, the teaching of emerging logistics technologies, and the reform of teaching methods. The pace of curriculum updates often fails to keep up with technological advancements in the industry, resulting in delays in students' systematic mastery of professional knowledge. Additionally, the reform of teaching methods has not fully shifted from a teacher-centered to a student-centered approach. Traditional teaching models may not effectively stimulate students' interest in learning, nor cultivate their critical thinking and problem-solving abilities.

Practical training, a crucial component of talent cultivation, currently shows insufficient close collaboration between institutions and the industry. The cooperation between institutions and enterprises has not yet formed a systematic and large-scale model, making it difficult for students to obtain adequate internship and practical training opportunities. This affects their in-depth understanding of logistics practices and the enhancement of their professional skills. The cultivation of students' international perspectives also faces challenges. Improving cross-cultural communication and international cooperation abilities requires more support for international exchange programs and overseas internship opportunities.

3. Cultivation Pathways for New Liberal Arts Talent in Logistics Management at Regional Applied Research Universities

From the perspective of new liberal arts, the logistics management discipline should emphasize the application of cutting-edge technologies and methods. Traditional thinking limitations must be overcome to promote interdisciplinary integration and interaction, aligning with emerging demands and industrial transformations. It is imperative to cultivate logistics professionals who possess strong comprehensive and specialized skills, high moral and cultural literacy, robust overall capabilities, a profound sense of patriotism, innovative spirit, and a global perspective. The mission of applied research universities is to nurture application-oriented talent with regional characteristics that serve the local economy, aligning with the developmental needs of the local economy.

Therefore, applied research universities should place greater emphasis on cultivating new types of talent in areas such as value guidance, interdisciplinary integration, societal service, and innovation and entrepreneurship capabilities.

3.1 Strengthening Value Guidance as the Mission of Constructing New Liberal Arts

Strengthening value guidance is the mission of constructing new liberal arts. The primary mission of new liberal arts is to adhere to the characteristics of liberal arts education, foster students' cultural confidence, and enhance their national spirit to promote the development of high-quality liberal arts talent. The logistics management talent cultivation program at Hubei University of Automotive Technology deeply implements the OBE philosophy and the value orientation of new liberal arts construction. Efforts are focused on cultivating well-rounded individuals with solid humanistic literacy, strong professional skills, innovative consciousness, and a global perspective. This program starts from the competencies that graduates should achieve, designing the curriculum

system in reverse to ensure the educational content closely aligns with societal, industry, and student needs, while strictly adhering to national standards (Figure 1).

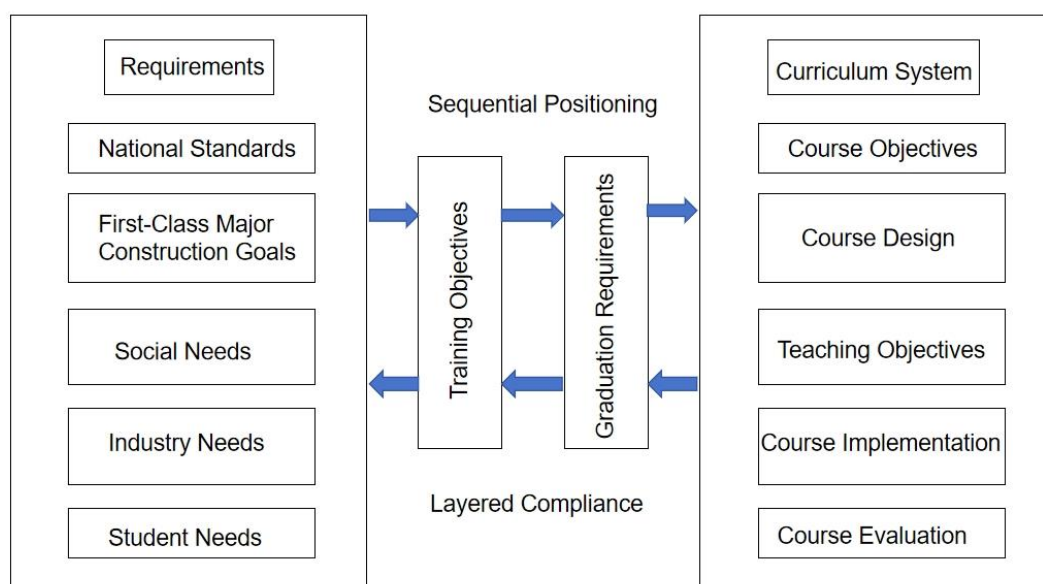


Figure 1: Design of the Reform Plan for the Talent Cultivation Model in Logistics Management

The curriculum system is constructed with a focus on the fundamental theories and practical operations of logistics management. Special emphasis is given to courses related to the automotive industry, such as automotive logistics, intelligent manufacturing, and supply chain management, to enhance students' adaptability and professional competitiveness. Socialist core values and national spirit are integrated throughout the entire teaching process. Case analysis and thematic discussions are used to cultivate students' patriotism and social responsibility. The application of technical tools, such as logistics management software and big data analysis tools, has improved teaching efficiency and students' learning experience, making education more modern and effective.

An evaluation and feedback mechanism has been established in this program. Diverse assessment methods ensure that students can comprehensively showcase their learning outcomes. Regular feedback from students, teachers, and industry experts is collected to continually optimize teaching content and methods. The expansion of international perspectives is achieved through international exchange programs and overseas internships, aiming to foster students' global competitiveness. Personalized development support and career guidance help students plan their career paths based on their characteristics and interests, enabling personalized growth.

3.2 Cross-Boundary Symbiosis in the Construction of New Liberal Arts in Logistics Management is an Inevitable Choice

The inevitable choice for constructing new liberal arts in logistics management is "cross-boundary symbiosis." Traditional liberal arts disciplines alone struggle to address the complexity of real-world problems, necessitating multidisciplinary collaboration. With the widespread application of modern high technology in the logistics field, information technology is transforming various logistics processes, indicating a need for cross-disciplinary talents to tackle logistics challenges.

The complexity of the logistics industry and the integration of technology require educational models to transcend traditional boundaries and achieve deep multidisciplinary integration. The

interdisciplinary course design fosters students' innovative thinking and problem-solving abilities, promoting the integration of knowledge from different academic fields. The logistics management program at Hubei University of Automotive Technology constructs a curriculum system encompassing management, engineering, and information science, aiming to cultivate versatile talents capable of working in high-tech environments. Professional courses delve into core theories of logistics management and cover innovative areas such as supply chain optimization, intelligent transportation systems, and big data applications to ensure students can meet the challenges of the modern logistics industry [5](Figure 2).

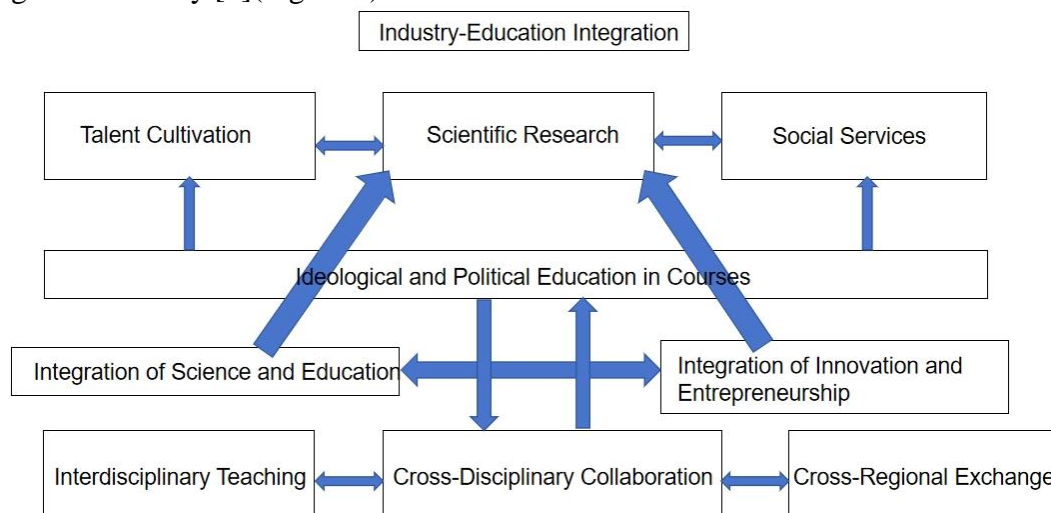


Figure 2: Integration and Symbiosis in Talent Cultivation within New Liberal Arts Construction

3.3 Serving Society as an Intrinsic Requirement in the New Liberal Arts Construction of Logistics Management

Serving society is an intrinsic requirement in constructing new liberal arts. Economic development is based on education. Higher education plays a crucial role in national and local economic development. The mission of applied research universities is to cultivate application-oriented talents with local characteristics, aligned with local productivity needs, and capable of serving the local economy. New liberal arts education emphasizes integrating social responsibility into the educational system. Hubei University of Automotive Technology, rooted in Shiyan and based in Hubei, takes "serving the local economy and the automotive industry" as its mission, pursuing a unique path of "integration of industry, academia, research, and innovation."

The logistics management program at this university aims to cultivate logistics management professionals with a strong sense of social responsibility, actively responding to societal needs. Professional courses are closely aligned with local economic characteristics and the logistics industry's demands. Course modules closely related to local industrial development, such as local specialty product logistics and regional logistics planning, are offered to enhance students' ability to contribute to the local economy. Through university-enterprise cooperation, students apply what they have learned, enhancing their ability to solve real-world problems in real work environments.[6]

3.4 Innovation and Entrepreneurship as a Requirement for New Liberal Arts Construction

Innovation and entrepreneurship are essential conditions for constructing new liberal arts. Against the backdrop of industrial innovation and the smart economy, more technological

innovation elements are being integrated into the logistics field. Traditional logistics enterprises need to transform and develop towards high-tech and intelligent directions. The support of innovative and entrepreneurial talent is indispensable for the transformation and development of the logistics industry.

In the context of new liberal arts construction, the Logistics Management program at Hubei University of Automotive Technology deeply recognizes that innovation is the key driving force for disciplinary development and social progress, while entrepreneurship is a crucial pathway to realizing personal and social value. Therefore, the program actively embraces innovation and entrepreneurship education, striving to create an educational model that cultivates innovative logistics management talent.

Courses related to innovation and entrepreneurship, such as Fundamentals of Entrepreneurship, Project Management, and Innovation Thinking Training, have been introduced, breaking traditional educational models and focusing on developing students' innovative consciousness and entrepreneurial abilities. Information technology is utilized to develop online courses and virtual simulation experiments, providing students with more abundant and flexible learning resources. These courses emphasize the combination of theory and practice, encouraging students to actively explore and practice during their studies [7].

As the core of this program, practical teaching provides students with ample internship and practical training opportunities. Through deep cooperation with local automotive enterprises, students apply their knowledge in real work environments and solve actual problems. The integration of innovation and entrepreneurship education encourages students to participate in innovation projects and entrepreneurship competitions, cultivating their innovative abilities and entrepreneurial spirit to meet the development needs of industrial innovation and the smart economy[8]. These competitions and activities offer students platforms to showcase their ideas and projects, as well as opportunities for learning and exchange, helping to broaden their horizons and enhance their competitiveness [9].

4. Recommendations for Cultivating Logistics Management Talent in Local Applied Research Universities from the Perspective of New Liberal Arts

Based on the objectives of cultivating local applied research-oriented logistics management talent, exploration can be undertaken in areas such as talent cultivation, curriculum ideological and political education, teaching systems, and faculty strength. This aims to enhance the quality of talent cultivated in the logistics management discipline. Leveraging the characteristics and positioning of applied undergraduate institutions, a talent cultivation model can be constructed that fundamentally focuses on moral and intellectual development, is student-centered, outcome-oriented, and integrates industry, academia, and research.

Value orientation should be strengthened, focusing on cultivating students with both moral integrity and talent. This involves promoting curriculum ideological and political education, exploring ideological and political elements within the logistics management field, and creating a typical case resource repository for curriculum ideological and political education in logistics. The integration of ideological and political concepts should be embedded into textbooks, introduced into classroom teaching, and permeate the entire process of cultivating logistics management talent within the new liberal arts framework.

The teaching model should be reshaped to establish a logistics management curriculum system centered on student development and achieving "cross-border symbiosis." This includes adjusting and integrating foundational courses, optimizing professional course settings, and establishing new modes of cooperation between schools and enterprises to enhance the quality of practical teaching.

Promoting the "going out" strategy and creating a diversified faculty team is crucial. The active implementation of policies to attract talent and wisdom is essential. An outstanding and integrated faculty team with a comprehensive knowledge system and professional background, combining theory and practice, with an appropriate talent gradient, is an effective guarantee for cultivating logistics management talent in the context of new liberal arts construction.

4.1 Clarifying and Addressing New Requirements for Cultivating Logistics Management Talent in Applied Research Universities from the Perspective of New Liberal Arts

The key measure to resolve the supply-demand contradiction of logistics management talent in the new era is to innovate the talent cultivation model and improve the quality of talent cultivation. This is also an important practice in the construction of new liberal arts. With the gradual establishment of the "dual circulation" new development pattern in China and the accelerated advancement of the nationwide unified market construction, new requirements have been proposed for the cultivation of logistics management talent in response to social and economic development.

It is necessary to clarify three levels: the new talent cultivation pattern brought by new liberal arts, the new requirements for talent cultivation in applied research undergraduate universities in the new era, and the new demands of the new economy for the cultivation of logistics management talent. In this regard, emphasis should be placed on value guidance, cross-disciplinary integration, professional competence, and innovation and entrepreneurship capabilities. A cultivation plan oriented by the new liberal arts should be established to address these aspects.

4.2 Exploring New Approaches to Ideological and Political Education in Logistics Management Courses from the Perspective of New Liberal Arts

The construction of new liberal arts aims to cultivate new-generation talents that meet contemporary demands. An indispensable path for this construction is to adhere to the excellent traditional Chinese culture and actively carry out innovative work in the inheritance of civilization. Ideological and political education in courses plays a crucial role in this process. One of the key measures in the construction of new liberal arts is to improve course quality and comprehensively promote ideological and political education in courses.

In the logistics management major, it is essential to integrate elements of ideological and political education into the curriculum within the context of new liberal arts construction. This integration should organically combine fundamental theories and current issues in the field, applying and developing ideological and political elements within logistics management. Emphasis should be placed on its critical position within management disciplines. Through the teaching of professional courses and ideological and political education, a complementary effect should ultimately be achieved.

As illustrated in Figure 3, the ideological and political elements in logistics management courses need to be deeply explored throughout the entire curriculum and practical teaching segments. This exploration should closely align with the characteristics of economic management disciplines and the logistics management major. Continuous optimization of the ideological and political teaching mode in logistics management courses is necessary. These elements should be more effectively integrated into daily teaching and practice to cultivate students' resilience, teamwork spirit, and social responsibility. This approach also aims to achieve comprehensive and holistic ideological and political education for all students in the logistics management major.

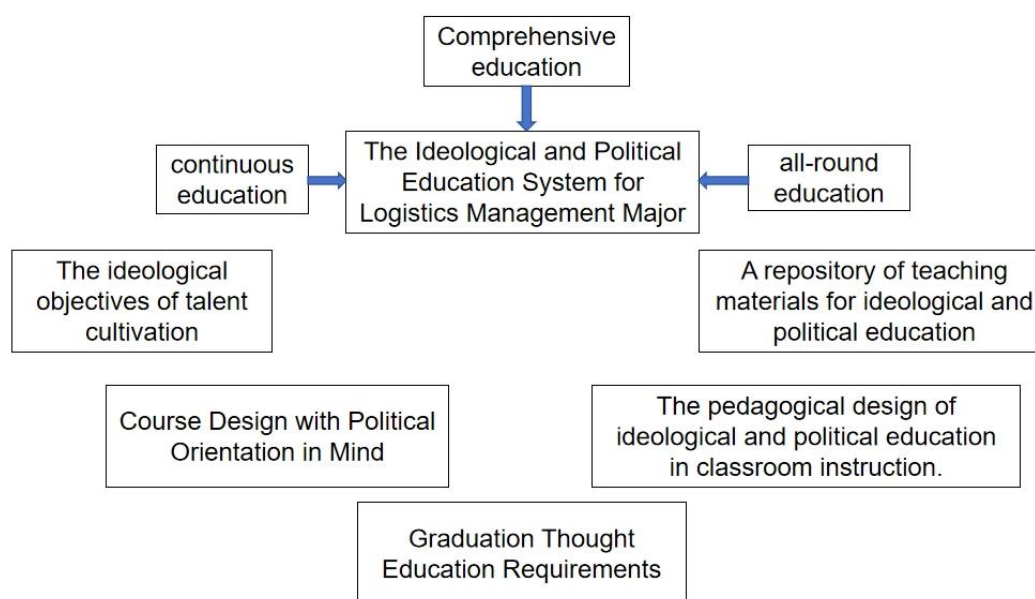


Figure 3: Comprehensive Ideological and Political Education System in Logistics Management

5 Conclusion

This paper uses the Logistics Management major at Hubei University of Automotive Technology as an example to explore the reform practices of talent cultivation in logistics management at local applied research universities during the construction of new liberal arts. The research findings contribute to the construction of new liberal arts, the development of national first-class undergraduate programs, and the continuous reform and improvement of talent cultivation models. These findings help to further strengthen faculty development and play a leading role in the reform of course content and teaching methods, continuously enhancing the new connotations and construction level of the Logistics Management major. Based on this foundation, the findings can provide a reference for course reform and professional development in other liberal arts disciplines, ultimately further serving the local economy in the future.

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