Vol. 11 (2026): Proceedings of the 2nd International Conference on Social Sciences and Cultural Studies (ICSSCS 2026)
ISSN: 3105-0522 P-ISSN：3105-0514
DOI: https://doi.org/10.70267/icsscs.20260112

Research on the Construction of "Micro-Majors" in Universities under the "Double Thousand" Plan to Enhance Employability of College Students

Yiran Wang*

Public Administration, China Agricultural University, Beijing, China

**Corresponding author：Yiran Wang*

Abstract

In the context of industrial upgrading, rapid development of artificial intelligence, and the digital economy, college graduates face the dual challenges of "major–job" mismatch and insufficient interdisciplinary competencies. In response to the national "stable employment" strategy, the Ministry of Education launched the "Double Thousand" Plan for Enhancing College Students' Employability in 2025, aiming to establish 1,000 "micro-majors" and 1,000 vocational skills training courses within three years. Through a "small credits, high focus, refined curriculum" approach, the plan helps students quickly address knowledge and skill gaps to achieve high-quality and full employment. This paper employs bibliometric and content analysis methods to review core domestic and international literature from 2015 to 2025. Domestic research on micro-major construction mainly focuses on engineering and business disciplines, proposing two main models—"university-led" and "MOOC-led"—and emphasizing the critical role of university–enterprise collaboration. International experiences highlight interdisciplinary integration, blended online–offline teaching, and international cooperative education, providing diverse paradigms for micro-major development. However, existing studies still exhibit blind spots, including insufficient attention to humanities and social sciences, uneven regional resource allocation, and the absence of quality evaluation systems. Future research should break disciplinary boundaries, address these issues by exploring curriculum domain construction systems, resource allocation systems, and quality evaluation systems for micro-majors, while promoting their "globalization" to contribute Chinese solutions to higher education reform and modernization of social governance.

Keywords

Double Thousand Plan, micro-major, employability of college students

1. Introduction

Amid China's economic shift toward industrial upgrading—where artificial intelligence and the digital economy have become new growth drivers—the shortage of application-oriented and interdisciplinary talent is evident, presenting new challenges for college graduates. In the policy environment, the Ministry of Education has actively responded to the decisions and deployments of the CPC Central Committee and the

State Council on "stable employment" by implementing the "Double Thousand" Plan for Enhancing College Students' Employability, promoting the nationwide establishment of 1,000 "micro-majors" (or professional course clusters) and 1,000 vocational skills training courses. In terms of social employment status, the scale of college graduates continues to increase, yet employment quality in some majors remains low, and competition in the job market is intensifying. This drives the need for students to enhance interdisciplinary competencies to adapt to flexible employment trends. Technologically, AI penetration across industries has promoted the "major + AI" model; however, traditional majors are often overly narrow, with outdated curricula leading to mismatches between major offerings and industry needs, as well as disconnects between students' skills and job requirements [1].

The "Double Thousand" Plan in higher education policy targets employment promotion, with micro-major construction as a key measure aimed at aligning talent supply and demand in higher education, helping students address knowledge and skill deficiencies, and enabling graduates to rapidly improve employability before leaving school to achieve high-quality and full employment. In terms of target groups, micro-major construction primarily targets current college students. The curriculum system adopts an interdisciplinary approach, providing broader, modular course offerings that expand students' knowledge breadth while strengthening their comprehensive qualities and development potential. In curriculum design, micro-major courses generally integrate theory and practice, emphasizing cultivation of practical skills. For example, micro-majors in areas such as artificial intelligence and big data not only teach foundational knowledge but also incorporate practical training and case studies, enabling students to apply what they have learned in real-world scenarios. This facilitates the transformation of theoretical knowledge into practical abilities and more effectively enhances employability. For students majoring in less popular fields, micro-majors also broaden employment pathways: a humanities or social sciences student can acquire frontier skills relevant to technology through a micro-major such as "Fundamentals of Artificial Intelligence," gaining more options in the job market and improving adaptability from the academic to the employment environment, thereby elevating overall employability among college graduates.

According to scholarly research, micro-majors hold significant value in advancing higher education reform and talent cultivation model innovation, enhancing students' employability and adaptability, exploring pathways to improve higher education quality, and responding to society's diverse talent demands. Micro-major construction not only elevates college students' employability but also contributes to high-quality employment in society. This paper analyzes domestic and international scholars' research on "micro-major construction," identifies the strengths and shortcomings of existing studies, and offers prospects for how micro-majors can better enhance the employability of college graduates in the future, hoping to further promote micro-major construction policies to support social development.

2. Research Methods and Process

The author first searched the Wanfang Database using "micro-major" as the keyword, selecting core journals and CSSCI sources, yielding 397 articles in the initial search. In the China National Knowledge Infrastructure (CNKI) full-text database, searching for "micro-major" in literature from 2015 to 2025 retrieved 443 articles, with the earliest complete proposal of the term "micro-major" appearing in a publication in 2015. The Ministry of Education officially launched the "Double Thousand" Plan in 2025. In the second search in CNKI, using the keyword with the highest co-occurrence frequency with "micro-major"—"talent cultivation"—yielded 33 articles, including 3 core articles. In the third search in CNKI, using the second most frequent co-occurring keyword—"new liberal arts"—retrieved 29 articles, including 4 core articles. Finally, articles that did not treat "micro-major" as a proper noun or focused on vocational school micro-majors were excluded. Ultimately, 15 articles were retained.

3. Research Results

3.1 Domestic Research Dynamics on Micro-Majors

In terms of disciplinary and professional construction, regarding micro-major implementation models, Zhu Jie and Huang Haiping (2019) classified domestic "micro-major" models into online course platform-led, university–platform collaborative, and university-led types. Wang Hanzhang and Wang Peisheng (2024)

simplified these into two categories: MOOC-led micro-major models and university-led models. Regarding course offerings, Chen Long, Wang Nan, and Feng Lili, using the accounting micro-major at D University as an example, argued that when traditional basic accounting is impacted by modern intelligent financial tools, micro-majors are needed to cultivate "application-oriented" and "interdisciplinary" accounting talent [2]. Tong Xinle et al. analyzed the supply–demand situation for fintech talent, advocating greater "specialization" and orientation in micro-majors, and explored ideas for constructing fintech "micro-major" talent cultivation models. These talent cultivation approaches help bridge the unreasonable gap between university professional knowledge and practical skills.

In terms of university–enterprise collaboration, Zhu Hao and Huang Haiping noted that current "micro-major" courses typically involve online platforms or tripartite cooperation among universities, platforms, and enterprises [3]. Chen Long, Wang Nan, and Feng Lili mentioned that D University's accounting micro-major collaborated with Aerospace Information Co., Ltd. to jointly plan courses and teaching content—a successful practice of university–enterprise cooperation. This demonstrates that university–enterprise collaboration in micro-majors provides a new platform for university talent to understand enterprise needs, facilitating a rational transition from professional knowledge to precise practical application.

Huang Jianwei and Xue Peng (2024) not only addressed disciplinary construction and university–enterprise cooperation but also, based on a synthesis of prior studies, classified "micro-major" research perspectives into several areas: educational models, professional development, talent cultivation, and curriculum systems. They explored effective pathways for application-oriented universities to construct "micro-majors" from aspects such as cultivation goal positioning, curriculum system building, faculty team development, and teaching model innovation [4].

In domestic micro-major research, among the 15 articles, 4 analyzed micro-major construction in the context of new liberal arts, arguing that micro-majors can better promote the transformation and upgrading of traditional liberal arts, assist application-oriented universities in cultivating interdisciplinary talent, and to some extent indicate that new liberal arts construction is an important component of higher education reform. At the same time, cultivation of interdisciplinary talent is more conducive to improving college students' employability and promoting high-quality employment among graduates.

3.2 International Research Progress on Micro-Majors

As a new form of education, the prototype of micro-majors can be traced back to pioneering practices at top U.S. universities. The globally renowned online education platform edX, jointly founded by Harvard University and MIT, led the MOOC wave and in 2013 was the first to explicitly propose and promote the innovative concept of "micro-majors," which quickly gained attention and was implemented worldwide in higher education [5].

In curriculum system construction, international micro-major education exhibits a distinctive feature of "interdisciplinary integration," which is not superficial but deeply embedded in course design. For example, MIT's "Entrepreneurship and Innovation" micro-major program integrates essential elements from multiple fields rather than single-discipline knowledge, breaking traditional disciplinary barriers to better cultivate students' comprehensive innovation abilities for addressing complex real-world challenges. Relevant scholars also note that globally, frontier technology fields such as "artificial intelligence" and "big data" remain the primary focus of micro-major content and attract active participation from college graduates.

In teaching implementation models, leading international institutions generally leverage advanced online learning platforms to deliver micro-major education efficiently and flexibly. A representative example is MIT's "Supply Chain Management MicroMasters Program" [6]. This program adopts a blended online–offline model, requiring participants to complete five systematic professional courses online, pass rigorous assessments, and pay relevant fees to earn an officially recognized MicroMasters credential from MIT. This model effectively overcomes spatial and temporal constraints and promotes widespread dissemination of high-quality educational resources.

In terms of cross-border cooperation, international micro-major development shows a clear trend toward globalization. MIT again leads in this regard, with several programs explicitly allowing and encouraging cross-institutional course selection. With approval from their home institution's academic advisor, students

can conveniently enroll in relevant courses at Harvard University or Wellesley College and earn credits. Such inter-institutional credit recognition and course-sharing mechanisms provide students with broader learning resources and more diverse academic perspectives. Similarly, Chinese universities are actively integrating into this globalization process. For example, Tsinghua University's collaboration with UNESCO on the "International Computer Micro-Major Program" strongly reflects the borderless collaborative trend in micro-major education.

In terms of policy support and regulation, major economies and regional organizations worldwide are increasing support for micro-major education and working to build sound institutional environments for its healthy development. In 2020, the European Union established the "Higher Education Micro-Credential Expert Committee" to develop unified EU-level standards and implementation plans for micro-major certification, addressing key issues such as mutual recognition and quality assurance. This systematic policy action has significantly accelerated and standardized the promotion, application, and mutual recognition of micro-credential systems across European countries, providing important reference for the standardized development of global micro-major education.

4. Discussion

4.1 Main Contributions of Existing Research

In terms of micro-major positioning, domestic studies indicate that micro-majors are a product of the Ministry of Education's "Double Thousand" Plan, rapidly aligning with national strategic needs through a "small credits, high focus, refined curriculum" model, clarifying their positioning and function in policy implementation. Scholars generally emphasize the value of micro-majors as a "demand-oriented" policy tool that promotes "two-way convergence" between students' employment needs and enterprises' talent requirements. In curriculum design, existing micro-major research explores practical pathways for interdisciplinary integration, breaking disciplinary barriers. For instance, some scholars focus on how micro-majors can promote new liberal arts construction, reflecting an orientation toward cultivating interdisciplinary talent. In university–enterprise collaboration, studies reveal that such cooperation is a core implementation model for micro-majors, calling for enterprises to participate in course design and practical teaching to advance "industry–education integration."

4.2 Deficiencies and Blind Spots in Existing Research

Domestic research on micro-majors still has shortcomings. In terms of disciplinary coverage, construction mainly focuses on engineering and business fields (e.g., AI, fintech) to respond to hot demands, but lacks exploration of micro-majors in humanities, social sciences, or less popular majors undergoing transformation—coverage is narrow and insufficiently refined. In resource allocation during policy implementation, studies overlook regional disparities: economically developed regions (Shanghai, Jiangsu) intensively offer micro-majors, while universities in central and western regions face challenges such as faculty shortages and limited enterprise cooperation resources. In curriculum design quality, research emphasizes "application orientation" but has not established social policy evaluation indicators for micro-major effectiveness (e.g., grassroots employment rates among graduates), risking courses becoming mere "skill crash courses."

4.3 Prospects for Existing Research

Future research should boldly break traditional disciplinary boundaries, transcend the current overemphasis on popular engineering and business fields, fully recognize the role of foundational disciplines such as humanities and social sciences, and explore the immense development potential and prospects in currently "less popular" majors. At the same time, particular attention should be paid to significant regional gaps in micro-major construction in China: universities in resource-scarce central and western regions often face multiple challenges, including weak faculty, inadequate teaching facilities, limited course resources, and scarce enterprise cooperation opportunities. Therefore, research should explore and promote efficient, sustainable cross-regional and cross-institutional resource-sharing and cooperation mechanisms—such as sharing high-quality online courses and jointly building teaching resource banks—to achieve complementary

advantages and coordinated development across regions. Concurrently, establishing a more scientific quality evaluation system for micro-majors is crucial. This system should not be limited to short-term evaluations at course completion but should conduct long-term tracking (e.g., 5 or 10 years post-graduation) of graduates' career trajectories, competency development, and societal contributions to comprehensively and realistically assess the lasting impact and value of micro-major education on students' personal growth and development, striving to prevent micro-majors from becoming mere "skill crash courses" without long-term effects. Relevant scholars should also actively translate empirical research findings on micro-major construction into feasible policy measures, scientifically applying them to national and local industrial planning, talent development strategies, and related education policy formulation, ensuring micro-major construction keeps pace with major national strategic needs and broader social development goals, thereby truly serving high-quality socioeconomic development.

5. Conclusion and Outlook

Against the backdrop of strong national policy guidance and intensifying employment competition among college students, micro-major construction provides a new platform for enhancing students' employability, advancing disciplinary development in universities, and improving alignment between talent supply and enterprise demand. However, the author believes that micro-major construction in China remains in its early stages, facing challenges such as incomplete curriculum construction systems, uneven resource allocation, and inadequate quality evaluation systems, necessitating accelerated policy reform and introduction. Looking ahead, micro-majors should adopt a more global perspective, cultivating talent with global governance vision to inject new vitality into micro-major policy construction. At the same time, the practical significance of micro-major policy construction extends far beyond education: progress in micro-major development represents not only innovation in talent cultivation models and improvement in students' employability but also an important manifestation of modernization in social governance systems. Through micro-major policy construction, we can cultivate more interdisciplinary talent, contributing wisdom and strength to solving social problems and advancing social progress.

References

Guo, R., Zhou, L. L., Su, Y. Q. and Yang, W. G., Educational and major mismatch and employment quality of college graduates. Studies in Labor Economics, 2019(02):78-100.

Zhang, X., Strengthening micro-major construction to build a complete undergraduate education. Chinese Social Sciences Today, 2022(03).

Chen, L., Wang, N. and Feng, L. L., Exploration of talent cultivation models through "micro-majors" in local universities: A case study of the accounting major at D University. Journal of Shijiazhuang University, 2021(02):152-155.

Zhu, J. and Huang, H. P., Exploration of computer micro-major construction in Chinese universities under the new engineering education background. Software Guide, 2019(11).

Huang, J. W. and Xue, P., Exploration of pathways for constructing "micro-majors" in local application-oriented universities under the new liberal arts background. China Soft Science, 2024(S2):433-438.

Wang, Y., Analysis of MOOC micro-majors and implications for MOOC construction in China. China Distance Education, 2018(12):23-30+79-80.

Fang, X. and Liu, R., International blended MicroMasters programs and implications: A case study of MIT's Supply Chain Management MicroMasters Program. Academic Degrees & Graduate Education, 2017(7).

Funding

This research received no external funding.

Conflicts of Interest

The authors declare no conflict of interest.

Acknowledgment

This paper is an output of the science project.