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# On the Training Model of Composite Translation Talents under the Background of Industry-Education Integration

-- A Case Study of Mudanjiang Normal University

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**Abstract:** The integration of industry and education is a deep cooperation between industry and education. It is a profound collaboration between educational institutions and industry enterprises to enhance the quality of their talent cultivation. This study explores a new composite translation talent training model at Mudanjiang Normal University, based on a "government-university-industry-enterprise" collaborative mechanism. Using diverse methods and global insights, it proposes a "Four-in-One, Four-Stage Progression" model tailored for local universities. This approach establishes a multi-party education mechanism and a practical training system, enhancing student competencies, teacher development, university-enterprise cooperation, and local growth.

**Keywords:** Industry-Education Integration; Composite Translation Talents; Training Model; Educational Reform.

## 1. Introduction

In recent years, the integration of industry and education has become a crucial national strategy to advance educational modernization and enhance the capacity to serve economic and social development. Establishing industry-education integration communities serves as a powerful measure to advance educational reform as well as an effective pathway to empower industrial development. (Hu Dexin, Kan Baoxiao, 2025: 86) *The Several Opinions on Deepening the Integration of Industry and Education* issued by the General Office of the State Council of the People's Republic of China explicitly called for "promoting the organic connection among the education chain, talent chain, industrial chain, and innovation chain." Following this, multiple departments, including the Ministry of Education and the Ministry of Industry and Information Technology of the People's Republic of China, jointly introduced a series of documents aimed at guiding higher education institutions, particularly application-oriented universities, to proactively align with industry needs and optimize the structure of talent cultivation. The report to the 20th National Congress of the Communist Party of China further emphasized the need to "promote the integration of vocational and general education, industry and education, as well as science and education," endowing industry-education integration with new contemporary significance. These top-level designs have charted the course for higher education reform, necessitating a shift in translation talent training from the traditional "ivory tower" model to a new paradigm characterized by synergistic interaction and deep integration with industries. This transformation is essential to providing solid talent support for national opening-up strategies and regional economic development.

The deep integration of globalization and the digital economy is driving disruptive changes in the language services industry. The scope of the industry has expanded far beyond traditional translation and interpretation to include emerging fields such as localization, internationalization consulting, technical writing, big data public opinion analysis, and AI training. Modern language service projects heavily rely on tools such as computer-assisted translation (CAT), machine translation post-editing (MTPE), cloud-based collaboration platforms, and corpus technologies, while also placing high demands on translators' expertise in specific domains (e.g., law, finance, healthcare, engineering). Consequently, market demands for translation professionals have shifted from mere language converters to composite talents possessing "foreign language proficiency, specialized domain knowledge, modern translation technology skills, and cross-cultural communication and project management capabilities." A significant gap exists between the current supply of graduates and these market expectations, making it an urgent task for higher education to cultivate talents that meet these new standards.

## 2. Connotation, Characteristics, and Operational Mechanisms of Industry-Education Integration

Universities must transform their talent cultivation philosophy by aligning their scientific and technological resources, intellectual resources, and R&D resources with industries, establishing collaborative mechanisms with enterprises, and enhancing their capacity and capability to engage with businesses. (Song Liqiu, Qi Hongxue, 2025: 249) Industry-education integration refers to a new relationship and model wherein industrial and educational systems permeate, support, and promote each other, ultimately achieving integrated development. Its core essence lies in breaking down barriers between education and industry, enabling the organic transformation and optimal allocation of educational and industrial resources. It goes beyond traditional, superficial university-enterprise cooperation—which often merely arranges student internships or invites industry experts to give occasional lectures—and requires deep industry involvement throughout the entire talent

cultivation process. Similarly, the education sector must actively serve the entire industrial development chain, forming a symbiotic ecosystem where "each is within the other." The ultimate goal is to enhance education's capacity to serve economic and social development while driving industrial upgrading and innovation-driven development.

As an in-depth model of education-industry collaboration, industry-education integration exhibits four distinct characteristics: First, it is highly strategic, representing a top-level national design that connects educational priority development, talent-led development, industrial innovation, and high-quality economic development. Second, it demonstrates a high degree of systematization, involving multiple stakeholders such as government, industry, enterprises, and schools, and encompassing various aspects including talent cultivation, scientific research, technological innovation, product development, and achievement transformation. It is a complex systematic project. Third, it emphasizes deep interactivity, enabling two-way interaction and empowerment between "industry" and "education": industry provides authentic needs, scenarios, and resources to education, while education offers talent support, intellectual input, and technical services to industry. Fourth, it pursues sustainable mutual benefits. By establishing benefit-sharing mechanisms, enterprises gain needed talent and technical support, schools improve the quality of talent cultivation and institutional development, and students achieve better career prospects, ultimately realizing multi-stakeholder win-win outcomes.

The operational mechanism of industry-education integration is an organic whole comprising primarily a driving mechanism, a collaboration mechanism, and a support mechanism. Its operational drive stems from both internal and external forces: internal drive arises from the common needs of schools seeking development, enterprises seeking talent, and students seeking success; external drive comes from policy guidance, market competition, and technological advancement. On this basis, effective collaboration is achieved through the establishment of a multi-party "government-school-industry-enterprise" collaborative education platform: the government provides guidance, coordination, and policy support; industry organizations formulate standards, provide information, and serve as bridges; enterprises offer practical positions, project resources, mentor support, and demand feedback; and schools, as the primary educators, integrate resources and organize teaching implementation. To ensure stable and sustainable collaboration, a comprehensive support mechanism is also constructed, including policy support, organizational support, resource support, and an evaluation mechanism, collectively underpinning the effective operation and continuous optimization of industry-education integration.

# 3. Connotation, Competency Framework, and Training Trends of Composite Translation Talents

Innovative talents cultivated by universities should possess a global vision, innovative spirit, and practical skills, enabling them to demonstrate Chinese wisdom and contribute Chinese solutions on the international stage.(Liu Changsheng, 2025: 25) Composite translation talents refer to comprehensive, application-oriented professionals who possess not only solid foreign language proficiency and cross-cultural communication skills but also foundational knowledge in one or more relevant specialized domains, coupled with proficiency in modern translation technology tools and strong professional ethics. They are no longer mere language converters but rather "language service experts" or "cross-cultural communication consultants" capable of handling diverse tasks in complex contexts.

The competency structure of composite translation talents is a multi-integrated system with language competence as its core foundation—i.e., mastery of source and target languages, advanced listening, speaking, reading, writing, and translation skills, enabling accurate comprehension of source texts and idiomatic target language expression. Building on this, acute cross-cultural competence is essential, allowing for deep understanding and appropriate handling of cultural differences to achieve effective cultural transmission, particularly crucial in contexts such as "telling China's story well." Simultaneously, mastery of the terminology, concepts, and norms of a specialized domain (e.g., law, finance, healthcare) is necessary to ensure translation accuracy and professionalism.

Additionally, strong technological application skills are required, including proficiency in computer-assisted translation tools, machine translation post-editing, corpus technologies, and project management software to enhance efficiency and quality. Finally, comprehensive professional literacy is indispensable, encompassing project management, professional ethics, communication and collaboration, client management, as well as lifelong learning and innovation consciousness, collectively supporting their overall performance and sustainable development in real professional environments. These competencies support and integrate with each other, forming a complete competency framework for high-quality Composite translation talents.

Driven by both domestic policy guidance and industry demands, research on industry-education integration and composite translation talent cultivation has generated several hotspots and exhibits clear trends. Current research highly focuses on the guiding role of national macro-policies on the education system, particularly their implementation paths in university governance, discipline and program establishment, and talent training plan revisions. Regarding composite translation talent cultivation, research emphasizes transformation and innovation in the digital-intelligent era: first, highlighting technology empowerment, actively exploring the integration of computer-assisted translation (CAT), machine translation post-editing (MTPE), corpus technologies, and localization tools into teaching to cultivate composite talents mastering modern language technologies; second, advocating deepened industry-education collaboration, promoting university-enterprise co-construction of internship bases, introduction of industry mentors, joint course development, project-based teaching, and establishment of industry colleges to break through traditional closed training models; third, focusing on aligning with national strategies and regional development needs, strengthening students' cross-cultural communication skills and domain knowledge integration.

Concurrently, research increasingly emphasizes quality evaluation and standard system construction, including reforming practical thesis formats, establishing industry-participatory evaluation mechanisms, improving the "dual-mentor" system, and actively responding to the institutional innovation needs brought by the development of translation

professional degree education (e.g., the establishment of DTI), promoting the formulation and implementation of group standards for internship base norms and industry mentor requirements, thereby systematically constructing a quality assurance system for translation talent cultivation under the context of industry-education integration.

# 4. Current Status and Challenges of Translation Talent Cultivation under the Context of Industry-Education Integration

As an important base for foreign language education and talent cultivation in southeastern Heilongjiang Province, Mudanjiang Normal University's translation program has, through years of development, established a relatively complete teaching system and distinctive training characteristics. Building on the university's strong tradition in teacher education, the program initially focused on training regional English education teachers. In response to changing societal needs, it actively promoted a transformation in program orientation, gradually adding applied directions such as translation and business English, committed to serving regional economic and social development and cultivating high-quality, application-oriented foreign language talents. In terms of translation faculty development, the program has formed a teaching team backbone of young and middle-aged teachers with advanced degrees, most of whom hold master's or higher degrees, with continuously improving research and teaching capabilities. Currently, the academic backgrounds of the faculty are primarily in literature, linguistics, and translation theory, providing a solid academic foundation. Simultaneously, the program is actively promoting the development of a "dual-qualified" teaching faculty, aiming to further expand teachers' industry practical experience and enhance teaching capabilities aligned with industry needs.

The university has accumulated a series of advantages and achieved significant results in the process of translation talent cultivation. First, inheriting the tradition of teacher education, it highly emphasizes the systematic training of students' fundamental language skills, laying a solid bilingual foundation through high-intensity listening, speaking, reading, and writing instruction. Second, it has initially constructed an industry-education integrated education mechanism, co-establishing internship and practice bases with local foreign trade enterprises and travel agencies, and actively organizing students to participate in authoritative competitions such as the Han Suyin International Translation Competition, using competitions to promote learning and practice to enhance application, effectively improving students' comprehensive application abilities. Meanwhile, the curriculum system continues to be optimized, with the addition of applied courses such as *Business English Translation* and *Computer-Assisted Translation*, advancing the alignment of teaching content with industry needs. Additionally, the college leverages its geographical advantage as a border port with Russia, incorporating regional elements into curriculum design and cultural exchanges, gradually forming distinctive characteristics different from inland institutions, enhancing graduates' social adaptability and competitiveness. Overall, the translation program is in a critical stage of transition from a traditional academic and teacher-training model to a modern applied and composite training system, forming a new pattern of talent cultivation that is more open, integrated, and adapted to regional development needs.

The current training model of the translation program still faces systematic challenges, particularly regarding the alignment between the curriculum and regional industrial needs. Existing courses need further integration with content from local key industries such as cross-border e-commerce, tourism management, and foreign-related law, strengthening the development of English for Specific Purposes (ESP) and domain-specific translation courses to enhance the fit between talents and the job market. In terms of practical teaching resources, on-campus CAT laboratories and simulated environments require upgrading, off-campus internship bases need expanded domain coverage, and classroom teaching should incorporate more real enterprise cases. Regarding faculty, continuous efforts should be made to advance the "dual-qualified" teaching team construction and deepen university-enterprise experience exchange. University-enterprise cooperation remains predominantly short-term internships; deeper enterprise involvement in curriculum development and talent evaluation needs promotion through the construction of industry colleges and improved benefit-sharing mechanisms. The current evaluation system focuses primarily on academic ability; it should further incorporate assessments of professional literacy such as technology application and teamwork in authentic contexts, introduce industry standards and enterprise feedback, and comprehensively reflect students' overall professional competence.

# 5. Construction Path of an Composite Translation Talent Training Model

## 5.1. Theoretical Foundation

This study is grounded in a joint theoretical foundation comprising Synergetics, Constructivist Learning Theory, and the concept of Outcome-Based Education (OBE), which together systematically construct the theoretical support for the training model of composite translation talents in the context of industry-education integration.

Synergetics, founded by Hermann Haken, emphasizes the nonlinear interactions and synergistic effects among multiple subsystems within an open system. It provides a systems theory basis for the quadrilaterally integrated collaborative education mechanism involving "government, university, industry, and enterprise". It defines the order parameter functions and collaborative pathways of these four entities—Government, Industry, Enterprise, and University—promoting the optimization of overall benefits. Constructivism posits that knowledge is acquired through active exploration and meaning construction within socio-cultural contexts. This theory supports the implementation of contextualized and project-based teaching in this study, advocating for the introduction of real-world projects into the classroom, a dual-tutor system, and the building of learning communities. It facilitates students in integrating multidimensional knowledge and completing the role transition from passive recipients to active practitioners. The Outcome-Based Education (OBE) concept adheres to starting with the ultimate learning outcomes to conduct backward design and closed-loop improvement. It guides this study in defining the competency composition of composite translation talents, designing the curriculum and evaluation systems in reverse, and establishing a diverse evaluation and continuous improvement mechanism to achieve spiral

enhancement of talent quality.

These three theories interconnect organically at the macro level of system collaboration, the meso level of teaching processes, and the micro level of evaluation improvement, respectively. Together, they form a comprehensive theoretical framework that spans goal setting, entity collaboration, implementation, and feedback, providing a solid theoretical foundation for the construction of the training model.

## 5.2. Construction Principles

"Mastery of a specialized domain, proficiency in translation, and possession of comprehensive international humanistic literacy" represent the three core competencies required of composite translation talents to meet the demands of our times. (Xia Xiaodong, 2019: 100) The construction of this model follows four core principles. First, adhere to the demand-oriented principle, basing training objectives, graduation requirements, and curriculum system design on national strategies, regional economic development, language service industry needs, and students' personal career development, ensuring high relevance and adaptability of talent cultivation. Second, implement the collaborative education principle, establishing an education community involving government, schools, industry, and enterprises to achieve resource sharing, responsibility sharing, and mutual benefits, promoting the integration of quality resources and systematic optimization of the training process. Third, highlight the practice-driven principle, integrating practical teaching throughout the entire talent cultivation process, using project introduction, task-driven approaches, case teaching, and real-world training to help students construct knowledge, hone comprehensive practical abilities, and develop professional literacy in authentic translation contexts. Fourth, establish the dynamic adjustment principle, creating an outcomes-based education (OBE) continuous improvement mechanism, regularly optimizing training objectives, course content, teaching methods, and cooperation models by tracking industry trends and surveying graduate and employer feedback, ensuring the training model remains advanced and vibrant.

## 5.3. The "Four-in-One, Four-Stage Progression" Translation Talent Training Model

Cultivating composite translation talents responds to the demands from our era and society, as well as from the development of the translation discipline itself; it represents the direction for the construction and reform of China's translation talent cultivation model. (Wu Guangjun, 2011: 8) The "Four-in-One, Four-Stage Progression" translation talent training model establishes a "Government-School-Industry-Enterprise" four-in-one collaborative education mechanism, where each party assumes different functions forming an organic whole. The government operates at the guidance and support level, providing policy and financial support, leading the establishment of a regional language service industry-education integration alliance, and acting as a bridge and institutional guarantor through incentive policies. The school, as the main body and implementation level, undertakes core responsibilities including needs research, curriculum system restructuring, teaching method reform, "dual-qualified" faculty construction, and teaching organization management, while coordinating with all parties to maintain effective mechanism operation. Industry organizations function at the guidance and liaison level, participating in talent standard formulation, providing industry reports and certification systems (e.g., CATTI), and integrating industry norms and ethical requirements into teaching and evaluation, promoting synchronous development of the program and the industry. Enterprises, as the participation and feedback level, transform from traditional employers into full-process participants, deeply integrating into the talent cultivation process by providing real projects, industry mentors, practice bases, and participating in curriculum development and talent evaluation, forming a continuous feedback mechanism for closed-loop optimization of collaborative education.

Based on the objective laws of competency growth, the "Four-in-One, Four-Stage Progression" model constructs a "four-stage ascension" practical ability training system, dividing the four-year practical teaching into four progressively deepening stages:

Stage 1 (Semesters 1-4) is the foundational cognition stage, combining basic professional courses with industry awareness education to solidify bilingual foundations and establish initial professional awareness.

Stage 2 (Semester 5) is the skill simulation stage, relying on core professional courses and simulated training to enable students to master core translation skills and technology tools and achieve initial application in simulated environments.

Stage 3 (Semester 6) is the practical combat training stage, utilizing directional courses and real enterprise projects, high-level competitions, and other practical tasks to comprehensively enhance students' comprehensive application abilities in authentic situations.

Stage 4 (Semesters 7-8) is the full-time internship and outcome sublimation stage, where full-time enterprise internships and graduation assessments based on real projects facilitate students' full integration into the professional environment and complete the transition from student to professional translator, ultimately forming a systematic, progressive, industry-education integrated practical ability development path.

To ensure the effective operation of the "Four-in-One, Four-Stage Progression" translation talent training model, the following four support systems need constructed correspondingly.

Regarding the curriculum system, break the original discipline-centered curriculum structure and build a "platform + module" course cluster, including a language foundation module solidifying bilingual abilities, a translation skills module cultivating core interpreting and translation competencies, a professional direction module aligning with regional industries, and a technology application module strengthening technology empowerment.

Regarding faculty development, a dual-track strategy of "bringing in experts and sending out teachers" has been implemented. This approach enhances the practical teaching abilities of in-house faculty by establishing corporate residency programs, encouraging the acquisition of industry certifications, and promoting participation in industry-collaborative research projects. Simultaneously, establish industry mentor positions, inviting enterprise technical experts and project managers to undertake practical teaching and graduation guidance, forming a university-enterprise interactive "dual-qualified" team structure.

Regarding practical platforms, co-construct entity-operated industry colleges and high-level translation laboratories on campus, introducing crowdsourcing translation platforms to

simulate real work environments; off-campus, extend practical classrooms to enterprise sites through stable internship bases and "enterprise-school" cooperation models.

Regarding the evaluation system, establish a diverse, process-oriented, and outcomes-based evaluation mechanism, integrating multi-stakeholder evaluations from inside and outside the school, adopting diverse evaluation methods such as project outcomes, case analyses, internship performance, and professional certifications, and introducing industry quality assessment standards, significantly reducing the weight of single closed-book exams, comprehensively ensuring the quality of professional competency cultivation.

# 6. Conclusion

Based on the concept of industry-education integration and using Mudanjiang Normal University as an example, this study conducted a systematic investigation into the composite translation talent training model at local application-oriented universities, yielding the following main conclusions. This study constructs an composite translation talent training model guaranteed by a "government-school-industry-enterprise" collaborative mechanism, centered on a "four-stage Progression" practical system, and supported by four systems: curriculum, faculty, platform, and evaluation. Its core connotation lies in achieving the organic connection of the education chain, talent chain, industrial chain, and innovation chain through institutional and mechanism innovation.

This model has three distinct features: first, precise positioning, closely integrating the function of local universities serving regional development with local industrial characteristics, reflecting the "localization" and "specialization" of talent cultivation; second, systematic coordination, breaking through previous limitations of partial reforms, starting from top-level design to achieve integrated restructuring of training objectives, curriculum, teaching, faculty, evaluation, and cooperation mechanisms; third, practical thoroughness, relying on the "cognition-simulation-combat-internship" four-stage progressive system, following the laws of ability development, achieving full-process coverage of practical teaching, and effectively promoting the orderly enhancement of students' practical innovation abilities.

The implementation of this model positively impacts the quality of translation talent cultivation, not only alleviating the pronounced issues of disconnection between theory and practice and separation between teaching and industry in traditional training, significantly enhancing students' professional competence, employment competitiveness, and sustainable development ability, but also vigorously promoting the university's professional connotation construction and characteristic development, enhancing its capacity to serve local economic and social development, and providing a practical, referential transformation and development plan for similar institutions.

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