

# Research on the Phased Progressive Career Development Guidance System under the Background of Sino-Foreign Cooperative Education

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**Abstract:** In the context of Sino-foreign cooperative education programs, college students' career development exhibits cross-cultural characteristics, multiple pathways, and high uncertainty. The traditional guidance model, focused primarily on employment services at graduation stages, can no longer meet the comprehensive educational needs throughout the entire learning process. This study investigates the construction, implementation, and optimization of a phased progressive career development guidance system. Centered on the four-year undergraduate growth trajectory, it establishes a step-by-step guidance framework encompassing "career awareness awakening, pathway diversification, competency accumulation, and decision implementation." Leveraging career development profiling and artificial intelligence technologies, the system utilizes concentrated practical training in senior years as a critical implementation domain to achieve job matching, risk prediction, and decision support. The study suggests that this system enhances the continuity, precision, and effectiveness of career guidance, facilitating the transition of career development support for international students from end-stage services to holistic educational cultivation throughout their academic journey.

**Keywords:** Sino-foreign cooperative education programs; Career development guidance; A phased, progressive system; Digital intelligence empowerment

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## 1. Introduction

Against the backdrop of high-quality development in higher education, career development guidance for college students has gradually shifted from employment services during graduation to developmental guidance spanning the entire talent cultivation process<sup>[1]</sup>. Especially in Sino-foreign cooperative education programs, students commonly encounter cross-cultural learning challenges, multiple pathway choices, and significant developmental uncertainties. Their career development is no longer merely a single employment

issue but rather a systematic process involving professional cognition, skill accumulation, practical experience, and developmental decision-making <sup>[2]</sup>. The traditional employment mobilization model, which primarily targets graduating classes <sup>[3]</sup>, can no longer meet the practical needs of these students for early awareness, early planning, early accumulation, and early career orientation <sup>[4]</sup>.

In practice, career development guidance for students in Sino-foreign cooperative education programs still faces challenges such as delayed intervention timing, insufficient stage coordination, disconnection between practice and decision-making, reliance on experiential guidance methods, and low precision levels. These issues undermine students' clarity in career objectives and job position alignment. Meanwhile, the advancement of digital and intelligent technologies has provided new support for career development guidance. By constructing student career development profiles that integrate academic performance, practical experience, competency structures, and developmental aspirations, and leveraging artificial intelligence technologies for job matching, risk prediction, and decision support, career guidance can transition from experience-based judgments to data-driven approaches and evolve from extensive services to precision-oriented support. Building on this foundation, this study focuses on career development guidance for students in Sino-foreign cooperative education programs. It explores the logical framework for constructing a phased progressive system, along with practical implementation strategies and optimization pathways. The research aims to provide theoretical foundations and practical references for enhancing the quality of talent cultivation and the effectiveness of career guidance in international educational collaborations.

## **2. A practical review of career development guidance for undergraduate students in Sino-foreign cooperative education programs**

Compared to regular undergraduate students, those enrolled in Sino-foreign cooperative education programs exhibit greater complexity and diversity in career development. On one hand, this group has long been immersed in cross-cultural educational environments. Their growth process involves not only professional knowledge acquisition but also multiple tasks such as language proficiency enhancement, adaptation to international curricula, cultural integration, and value adjustment. Consequently, career development is no longer merely about choosing post-graduation destinations, but rather a systemic issue closely intertwined with academic advancement, capability building, and future path planning. On the other hand, students enrolled in Sino-foreign cooperative education programs exhibit distinct career diversification patterns, with options ranging from domestic employment and academic advancement to overseas studies and international job opportunities. While this multi-path approach expands career prospects, it simultaneously complicates professional identity formation, career direction assessment, and phased planning processes, often leading to issues such as vague objectives, inadequate preparation, and delayed decision-making.

From the perspective of student growth patterns, career development awareness is not formed in a concentrated manner before graduation, but rather develops gradually, continuously adjusts, and deepens over the four years of university education—a dynamic process. During the first grade, students need to establish preliminary professional awareness, career cognition, and developmental consciousness. In the second and third grades, as curriculum learning deepens and ability differences become apparent, students gradually face career paths such as further education, employment, or studying abroad, requiring clearer direction for their development. During the fourth-grade stage, students should undergo extended periods of corporate practice <sup>[5,6]</sup>, job immersion, and comprehensive training to transform their initial knowledge into stable professional judgment

and practical decision-making skills. Therefore, career development guidance for students in Sino-foreign cooperative education programs exhibits significant needs throughout the entire process, necessitating a shift from end-stage interventions to phased implementation.

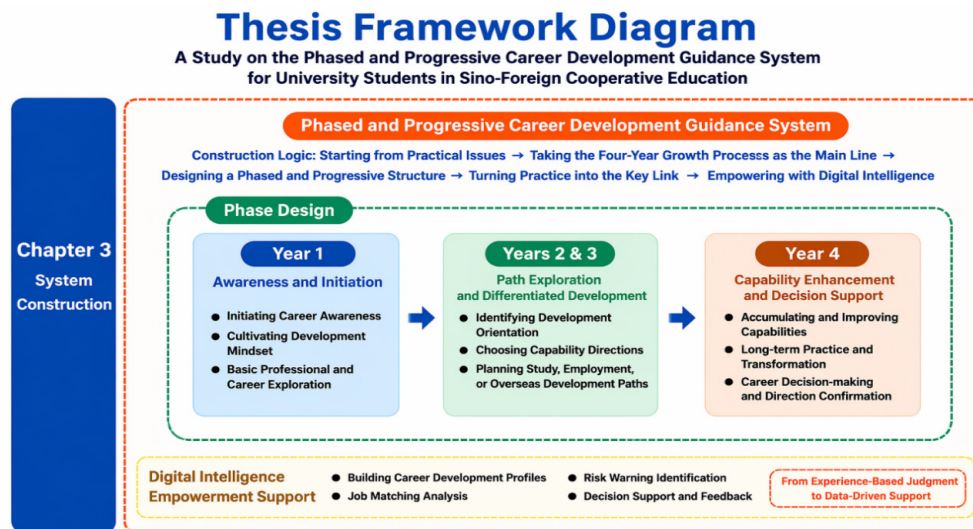
However, from a practical operational perspective, current career development guidance still exhibits significant deficiencies. Firstly, the intervention timing is relatively delayed, with more focus concentrated on the graduation job-hunting and destination confirmation stages, while preliminary enlightenment and mid-term guidance remain relatively weak. Secondly, there is insufficient integration between career guidance, professional training, and practical teaching, with course learning, language training, corporate practice, and career planning education yet to form an organic connection. Thirdly, the guidance approach relies heavily on experiential judgment, lacking sufficient precision and data-driven support <sup>[7]</sup>, which makes it difficult to effectively address students' diverse and dynamic developmental needs. Fourth, the multi-stakeholder collaboration mechanism remains imperfect, with insufficient information sharing and functional synergy among counselors, professional faculty, corporate mentors, and alumni resources. This highlights the urgent need for Chinese-foreign cooperative education programs to transition from fragmented, experiential, and procedural models to a comprehensive, phased, collaborative, and precision-oriented system for student career development guidance.

### **3. Construction of a phased progressive career development guidance system**

The phased progressive career development guidance system refers to a systematic arrangement of career development guidance objectives, content, methods, and resource allocation based on college students' cognitive levels, foundational abilities, and developmental tasks at different academic stages. This approach establishes a continuous, hierarchical, and adaptive guidance mechanism that spans the entire undergraduate education process. Unlike the traditional approach that views career guidance as merely employment services during graduation, this system emphasizes the educational and developmental attributes of career development counseling. It advocates integrating career awareness cultivation, path identification, skill acquisition, and decision-making support into the entire talent development process. For students in Sino-foreign cooperative education programs, whose career development is influenced by cross-cultural educational environments, diverse career choices, and international competency requirements, career guidance must transcend the conventional "end-stage intervention" model. Instead, it requires comprehensive integration throughout the entire process and phased implementation across different developmental stages.

From the perspective of constructivist logic, the core of this system lies in viewing the four years of university education as a dynamic process where career development awareness gradually takes shape, competency structures continuously accumulate, and career directions progressively become clear, thereby establishing a coherent phased arrangement. The first grade should focus on vocational cognition awakening and development awareness cultivation, enabling students to initially understand the relationship between specialized learning and future careers. During the second and third grade stages, emphasis should be placed on pathway differentiation and competency-oriented selection to help students develop relatively clear developmental orientations across multiple pathways such as academic advancement, employment, and overseas development. The fourth-grade stage should focus on enhancing competency accumulation, directional stability, and decision support. Students should be guided to strengthen their professional skills,

language proficiency, and practical abilities around predetermined goals, while validating and refining existing judgments in real-world occupational scenarios. This system does not merely arrange different guidance activities in a simplistic manner, but emphasizes the intrinsic connection between each phase. The outcomes of guidance from the preceding stage should serve as the foundation for the subsequent stage, while the developmental tasks of the latter stage are predicated on the accumulation of the former (Figure 1).



**Figure 1.** Phased progressive career development guidance system for undergraduate students in Sino-foreign cooperative education programs

Especially during the fourth grade stage, concentrated practical training for upper grades holds critical significance. Its value lies not only in extending the duration of practice but also in integrating students' previously formed professional cognition, developmental tendencies, and competency preparations into real work scenarios. This enables them to validate, refine, and confirm their existing judgments through practical application. Therefore, the concentrated practical training for senior students serves as both a consolidation point for preliminary guidance outcomes and a critical catalyst for career decision-making formation. Corporate practices should be integrated into the career development guidance system to establish a comprehensive operational mechanism encompassing “pre-practice guidance–practice tracking–post-practice decision-making.” Meanwhile, the effective operation of this system requires robust support from digital and intelligent technologies. By integrating academic performance, practical experience, competency frameworks, and feedback data, it establishes dynamically updated career development profiles. Leveraging artificial intelligence for job matching analysis, risk prediction, and decision support enables career guidance to transition from experience-driven approaches to data-driven strategies, significantly enhancing guidance precision and foresight. Overall, the phased progressive career development guidance system adopts a four-year growth cycle as its core framework, utilizes concentrated practical training in senior years as key implementation domains, and employs digital intelligence empowerment as methodological support. This approach facilitates the transition of career development guidance for international cooperative education students from fragmented services to systematic construction (Figure 2).

## CHAPTER 3 SYSTEM CONNOTATION AND KEY FOCUS AREAS

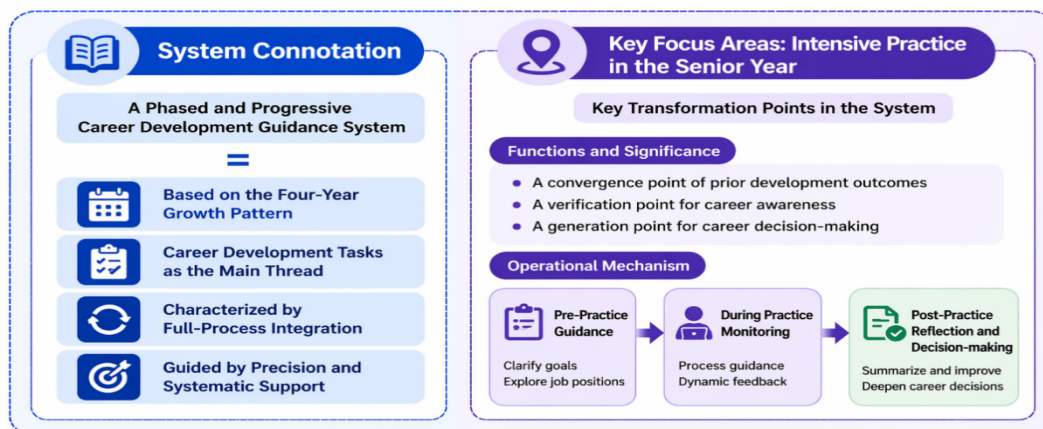


Figure 3-1 Diagram of System Connotation and Key Focus Areas

Figure 2. Connotation and key nodes of the phased progressive career development guidance system

### 4. Practical implementation and optimization of a phased, progressive career development guidance system

The practical implementation of a phased progressive career development guidance system hinges not on the stage design itself, but on whether it can establish a continuous, stable, and executable operational mechanism. For students enrolled in Sino-foreign cooperative education programs, career development guidance is not merely a simple aggregation of activities. Instead, it requires an integrated approach that aligns value orientation, developmental support, practical training, and resource coordination throughout the students' four-year growth journey. Counselors play a pivotal role in this process. Its leadership does not imply replacing other entities, but rather leverages the advantage of comprehensive process accompaniment to undertake tasks such as demand identification, rhythm management, resource integration, and process coordination. The development of students in Sino-foreign cooperative education programs is influenced by multiple factors including academic foundation, language proficiency, international exchange experience, and diverse pathway orientations. Without a stable organizational center, career guidance may face challenges such as information fragmentation and resource dispersion. Therefore, counselors should shift career guidance from concentrated pre-graduation interventions to continuous engagement throughout the undergraduate program. Simultaneously, value-oriented guidance should be integrated into career cognition, path selection, and developmental decision-making processes, thereby achieving organic integration between career guidance and ideological-political education.

The concentrated practice of senior students is a key field in the system operation. Its purpose extends beyond enhancing job-related experiences; it also enables students to validate, refine, and confirm their previously developed professional perceptions, career aspirations, and competency foundations through authentic workplace scenarios. Prior to implementation, occupational profiling and goal setting should be conducted based on students' academic performance, practical experience, and developmental aspirations. During the practice phase, dynamic tracking should be performed through interviews, feedback collection,

and documentation. Post-practice, experience should be consolidated via retrospective analysis and directional reaffirmation to facilitate the transformation of practical insights into professional judgment. Digital intelligence technology provides new support for system optimization. By integrating academic performance, practical experience, competency profiles, and feedback from practice, a dynamic career development profile is constructed. Leveraging artificial intelligence for job matching, risk early warning, and decision support enhances the precision and foresight of career guidance<sup>[8-11]</sup>. However, digital intelligence empowerment cannot replace counselors' educational judgment. Its fundamental value lies in enhancing the ability to identify issues and implement precise interventions. Overall, this system promotes the transition of career development guidance from end-stage, experience-based provision to comprehensive, systematic support throughout the entire process.

## 5. Conclusion and outlook

This study addresses the practical needs of career development for students in Sino-foreign cooperative education programs, focusing on the construction, implementation, and optimization of a phased progressive career development guidance system. The study indicates that students in Sino-foreign cooperative education programs exhibit cross-cultural, multi-path, and highly uncertain career development characteristics. The traditional employment-focused service model at the graduation stage has proven inadequate to meet their developmental needs. To achieve this, it is essential to adhere to the four-year undergraduate growth trajectory by establishing a progressive guidance system that encompasses vocational awareness awakening, pathway diversification, competency accumulation, and decision implementation. Senior-year intensive practical training should serve as a pivotal platform bridging competency preparation and career decision-making.

Meanwhile, the development of digital intelligence technologies has provided new support for career guidance. By integrating information such as academic performance, practical experience, competency structure, and practical feedback to construct career development profiles and leveraging artificial intelligence for job matching, risk prediction, and decision support, career guidance can transition from experience-based judgment to data-driven support. However, digital intelligence empowerment cannot replace counselors' educational judgment. Its true value lies in enhancing counselors' ability to identify issues, implement precise interventions, and provide sustained guidance. Overall, a phased and progressive career development guidance system enhances the continuity, precision, and effectiveness of career counseling, shifting the focus from end-stage services to holistic education throughout the entire career process. In the future, it remains essential to further refine multi-stakeholder collaboration mechanisms, standardize the application boundaries of digital and intelligent technologies, and deepen the organic integration of career guidance with value orientation, thereby promoting the continuous maturation of the career development guidance system for international cooperative education programs.

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## Disclosure statement

The authors declare no conflict of interest.

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