

Research on the Synergistic Development of Faculty Building and Innovation and Entrepreneurship Education of International Economics and Trade Specialties under the Perspective of Industry-Education Integration

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ABSTRACT

In the context of changes in the global economic and trade landscape, the international economics and trade program faces new challenges. This paper analyzes the problems of local undergraduate colleges and universities in the synergistic development of faculty and innovation and entrepreneurship education in this specialty from the perspective of industry-teaching integration, such as the lack of faculty enterprise experience, imbalance of curriculum, and poor quality of internship. The study proposes measures such as strengthening teachers' enterprise practice, reforming the evaluation system, establishing university-enterprise talent flow mechanism, optimizing innovation and entrepreneurship courses, innovating teaching methods, strengthening the construction of practice platforms, and perfecting the university-enterprise cooperation mode, in order to improve the level of teachers and realize the deep integration of professional education and innovation and entrepreneurship education. It provides new ideas for cultivating high-quality innovative and application-oriented talents, and also provides theoretical and practical references for local undergraduate colleges to deepen the integration of industry and education and optimize the talent cultivation mode.

KEYWORDS

International Economics and Trade Program; Faculty Building; Innovation and Entrepreneurship Education; Synergistic Development

1 Background and significance of the study

With the rapid development of digital technology, the global economic and trade pattern is experiencing unprecedented and profound changes. Cross-border e-commerce, digital payment, intelligent supply chain and other emerging forms of business flourish, reshaping the process and mode of international trade, but also put forward a new and higher requirements for the ability structure of international economic and trade talents. The traditional foreign trade knowledge system has been gradually difficult to meet the industry's demand for composite and innovative talents. Colleges and universities, as the main force of talent training, urgently need to keep pace with the times and adjust the talent training program to better adapt to the challenges of the digital economy era.

According to the statistics of the Ministry of Education, before 2013, the proportion of applied talents in China was only 40%, and there is a significant gap with the 80% proportion of applied talents in developed countries in Europe and America^[1]. In order to alleviate the contradiction between the supply and demand of talents in the market, in 2015, the Ministry of Education, the National Development and Reform Commission, and the Ministry of Finance issued the Guiding Opinions on Guiding Some Local Ordinary Undergraduate Colleges and Universities to Transform into an Application-oriented Type; and in 2017, the General Office of the State Council issued Several Opinions on Deepening the Integration of Industry and Education, which points out the direction of local undergraduate colleges and universities in fostering innovative and applied talents^[2], and also provides new ideas to alleviate the contradiction between the supply of talents in colleges and universities and the demand for talents in the market provides a new idea. However, at present, local undergraduate colleges and universities still generally have many problems in talent cultivation, such as the lack of outstanding characteristics and poor docking between supply and demand.

According to the International Trade and Economic Cooperation Research Institute of the Ministry of Commerce, the current demand for international economy and trade professionals in China is about 1.8 million people, and the talent gap in the industry in the next five years will be more than 1 million people^[3]. In the face of such a huge talent gap, the international economy and trade profession urgently needs to reform and innovation in the following key aspects. First, the training of talents, not only to further strengthen the teaching of professional theoretical knowledge, but also to focus on improving students' practical application ability and innovation and entrepreneurship, to cultivate composite talents who know both theory and practice, and have the spirit of innovation. Secondly, in terms of teacher construction, it is necessary to accelerate the cultivation of "dual-teacher" teachers who have both solid education and teaching ability and rich experience in the industry. At present, the proportion of "dual-teacher" teachers in national colleges and universities is only 28.6%, which is far from meeting the needs of the cultivation of applied talents.

Deepening the integration of industry and education is the key to realizing the above reform objectives. By optimizing the structure of the teacher team, introducing enterprise experts, improving the practical teaching ability of teachers,

promoting the close integration of classroom teaching content and methods with foreign trade practice, and at the same time taking innovation and entrepreneurship education as the guide, organically integrating innovation and entrepreneurship curriculum system into the professional curriculum system, and realizing the in-depth fusion of professional education and innovation and entrepreneurship education, theoretical teaching and practical teaching, only then can we inject new vitality into the development of the major of international economics and trade. new vitality and cultivate high-quality talents to meet the needs of the times.

2 Problems in the integration of industry and education in local undergraduate colleges and universities

Local undergraduate colleges and universities shoulder the important schooling task of delivering talents for local economic development, which is different from the positioning of academic universities and higher vocational colleges and universities. As the core path for local undergraduate institutions to transform into application-oriented, the integration of industry and education has been widely recognized at the theoretical and policy levels, but it still faces multiple structural contradictions in the actual promotion process. Based on the data of the Annual Report on the Quality of Higher Vocational Education in China (2023), we are now systematically sorting out and analyzing some prominent problems in the integration of industry and education in local undergraduate colleges and universities.

2.1 Structural shortcomings of faculty: Insufficient business experience and lack of mobility mechanisms

2.1.1 Teachers' lack of enterprise experience and weak practical skills

At the critical stage of local undergraduate colleges' transformation to application-oriented, the lack of practical experience in enterprises among the faculty has become a key bottleneck restricting the deepening of the integration of industry and education. The Annual Report on the Quality of Higher Vocational Education in China (2023) shows that only 32.6% of full-time teachers in local undergraduate colleges and universities have more than one year's work experience in enterprises, and there is a significant difference between different disciplines, with relatively high rates in engineering, and even less than 15% of teachers in liberal arts and business disciplines practicing in enterprises^[4]. This leads to the fact that the course content of many majors still remains at the theoretical level, which is difficult to effectively connect with the latest technology and development trend of the industry.

Feedback from enterprises also confirms the seriousness of this problem. According to a questionnaire survey on school-enterprise cooperation among 120 local undergraduate colleges and universities, 78% of the enterprises think that the teachers of the colleges and universities "lack the ability to solve practical production problems", which leads to a serious disconnect between practical teaching and industry needs^[5]. For example, the head of human resources of a manufacturing enterprise pointed out that "many teachers still rely on textbook cases when explaining intelligent manufacturing technology, and know little about the industrial internet platform and digital twin technology actually used by enterprises." This phenomenon of disconnection between theory and practice makes it difficult for students to master real vocational skills during school, and after graduation, they still need enterprises to invest a lot of training costs, which seriously affects the quality and efficiency of talent training.

2.1.2 Lack of school-enterprise mobility mechanism, poor teacher practice channels

In addition to the teachers' own lack of enterprise experience, the lack of effective two-way mobility mechanism between schools and enterprises further exacerbates the structural shortcomings of the teaching force. At present, only 9% of local undergraduate colleges and universities have established a regular channel for enterprise technical talents to teach in schools, and the situation of teachers going to enterprises for on-the-job training is mostly a formality^[6]. Research data from a provincial education department 2022 shows that 65% of teachers' enterprise practice programs are short-term (less than 3 months) symbolic arrangements, making it difficult to truly enhance teachers' industry practice ability.

There are two main reasons for this phenomenon: first, the title evaluation system is still oriented to academic achievements. In the current evaluation system for college teachers, scientific research papers and vertical projects are still the main basis for title promotion, and the weight of industry-teaching integration achievements such as enterprise technical services and horizontal projects is low. The survey shows that only 27% of institutions include enterprise service experience or industry practice results in the teacher promotion assessment index, resulting in a lack of motivation for teachers to go into enterprise practice. Second, school-enterprise cooperation lacks institutional guarantee. Most enterprises are cautious about teachers' long-term practice in enterprises due to factors such as commercial confidentiality and productivity, and institutions have not established effective incentive mechanisms, such as enterprise mentor allowances and the share of proceeds from joint research and development between schools and enterprises, to

promote the deep interaction between school and enterprise talents. This lack at the institutional level makes it difficult for cooperation between schools and enterprises to really materialize, and the construction of teachers is also seriously constrained.

2.2 Imbalance of curriculum structure: excessive proportion of theoretical courses and serious shortage of practical teaching

2.2.1 Imbalance of curriculum structure and limited quality of talent cultivation

At present, the structural imbalance of the curriculum system of local undergraduate colleges and universities is becoming more and more prominent. Comparative research data from the Annual Report on the Quality of Higher Vocational Education in China (2023) show that the average proportion of practical credits in the 35 local undergraduate colleges and universities sampled is only 28.3%, which contrasts sharply with the proportion of practical courses that is generally more than 50% in German universities of applied sciences^[4]. What is more noteworthy is that only 12 of these institutions have a practical credit share that reaches the 30% baseline set by the Ministry of Education, reflecting the marginalized status of practical teaching in the curriculum system.

This imbalance in the curriculum structure directly leads to the decline in the quality of talent cultivation. Survey data from the China Society for Vocational and Technical Education 2023 showed that 61% of enterprises reflected that new undergraduate graduates needed more than three months of pre-service training to be qualified for basic technical positions^[7]. The human resource director of a well-known equipment manufacturing company said, "We prefer to recruit senior graduates because they only need an average of 1.5 months' adaptation period to get up and running, while undergraduates often need a longer transition period." This phenomenon fully exposes the serious shortage of practical ability training in undergraduate education.

2.2.2 Formalization of School-Enterprise Cooperation Programs and Inefficient Utilization of Resources

As an important carrier of the integration of industry and education, school-enterprise cooperation generally exists the problem of "focusing on form and light on effectiveness" in actual operation. An eastern province released in 2023, "school-enterprise cooperation project special audit report" shows that in the sampling of 86 school-enterprise training bases, about 40% of the actual utilization rate of less than 30%, part of the huge investment in training places eventually reduced to cope with the inspection of the "show project"^[8]. Audit found that these practical training base equipment update cycle of an average of 5-7 years, far behind the enterprise production equipment 2-3 years of the update rhythm, resulting in student contact is often eliminated technical equipment.

An auto parts enterprise technical responsible person frankly: "We and the university jointly built the laboratory, the actual use of less than two months a year, most of the equipment is idle for a long time." This "signing hot, implementation of the cold" phenomenon, reflecting the lack of effective operation mechanism to protect the school-enterprise cooperation.

2.3 The internship link is a formality: low job matching and low quality

2.3.1 Low matching between internship positions and majors

First of all, the professional matching rate is insufficient. According to the National Report on Teaching Quality of Undergraduate Education in Ordinary Colleges and Universities released by the Ministry of Education in 2022, the professional matching rate of students' internships in local undergraduate colleges and universities is only 63.5%, which is far lower than the average level of 75% in applied colleges and universities^[9]. For example, students majoring in computer science and technology are arranged to work as administrative clerks, students majoring in mechanical design and manufacturing and automation are only involved in simple assembly operations, and students majoring in business administration are engaged in basic sales work. This job mismatch phenomenon seriously affects the effect of practical teaching, and it is difficult for students to gain practical work experience and skill enhancement related to their specialties during the internship.

Secondly, the technical content of the positions is insufficient. The study of Zhang Wei et al. (2023) pointed out that among the 500 cooperative enterprises surveyed, only 28.7% of the enterprises can provide interns with technology research and development positions, and more than 60% of the enterprises provide basic and repetitive work positions^[10]. This situation makes it difficult for students to obtain the improvement of professional core skills through internships, and the real value of internships is greatly reduced, which cannot effectively meet the needs of students' career development.

2.3.2 Poor quality of internship positions provided by enterprises

A large number of enterprises position interns as "cheap labor", according to the survey of Zhiliang Recruitment in 2022, 67.3% of the interns reflect that their main work is basic affairs such as data entry and document organization ^[11]. This kind of work arrangement leads to students' difficulty in contacting the core business, and their professional skills are not effectively practiced. Only 28.5% of enterprises have formulated a systematic training program for interns, and most of them lack a clear job rotation mechanism and mentorship system, which makes internships a mere formality and fails to achieve the expected educational and career development effects.

3 Cultivation Path for the Synergistic Development of Faculty Construction and Innovation and Entrepreneurship Education of International Economics and Trade Majors in the Context of Industry-Education Integration

3.1 Faculty Training and Development Mechanisms

To crack the structural short board of the faculty, we need to start from the following aspects:

3.1.1 Reinforcement of the system of teachers' enterprise practice.

The education authorities should issue a policy that requires newly recruited teachers to complete at least six months of enterprise practice and include it as a mandatory condition for title evaluation ^[12]. At the same time, institutions and enterprises are encouraged to build "teachers' enterprise workstations" to provide teachers with a long-term stable practice platform. In this way, teachers can go deep into the front line of enterprises, understand the latest industry trends and technology needs, and accumulate rich practical experience, so as to better integrate the actual cases of enterprises into classroom teaching and improve the quality of teaching.

3.1.2 Reform the teacher evaluation system.

Increase the weight of the achievements of industry-teaching integration, such as enterprise service and technology research and development, in the evaluation of titles, and set up the position of "industry professor" to attract senior technical talents from enterprises to teach in schools ^[13].

Through the reform of the evaluation system, teachers are guided to actively participate in the integration of industry and education, and are motivated to devote more energy to practical teaching and enterprise services, while the advanced concepts and practical experience of enterprise experts are introduced, so as to optimize the structure of the faculty and enhance the overall level of the faculty.

3.1.3 Establish a two-way flow mechanism for school and enterprise talents.

Through tax incentives, special subsidies and other means, encourage enterprises to accept teachers to practice, and promote the "mutual recruitment and mutual recognition" between teachers of institutions and engineers of enterprises, so as to form a stable ecological exchange of talents ^[12]. This two-way flow mechanism not only helps teachers to improve their practical ability, but also promotes enterprise engineers to understand the teaching and research situation of universities, strengthens the cooperation and exchange between schools and enterprises, and realizes mutual benefit and win-win situation.

3.2 Design and Implementation of Innovation and Entrepreneurship Education Courses

3.2.1 Optimize the Curriculum System

Integrate the innovation and entrepreneurship courses into the curriculum system of international economics and trade majors organically, and build a multi-level curriculum system of "basic courses + professional courses + innovation and entrepreneurship courses".

The basic courses focus on cultivating students' basic literacy and general skills; the professional courses are closely related to the actual needs of the industry and strengthen the practical teaching links; the innovation and entrepreneurship courses cultivate students' innovative thinking and entrepreneurial ability through case analysis and project practice. Through the setting of this multi-level curriculum system, the deep integration of professional education and innovation and entrepreneurship education is realized to provide students with comprehensive and systematic knowledge and skills training.

3.2.2 Innovative Teaching Methods

Diversified teaching methods such as project-driven, case teaching and group discussion are adopted to stimulate students' interest and initiative in learning. For example, in the innovation and entrepreneurship course, real enterprise cases can be introduced for students to analyze and discuss in groups and put forward solutions; or students can be organized to carry out innovation and entrepreneurship project practice, so that they can exercise their abilities and accumulate experience in practice. At the same time, modern information technology, such as online course platforms and virtual laboratories, is utilized to expand the teaching space and time and provide students with more convenient and efficient learning resources.

3.2.3 Strengthen the construction of practice platform

Cooperate with enterprises to build innovation and entrepreneurship practice bases to provide students with practice opportunities and resource support. The practice base can provide enterprises with talent reserves and technical support, and at the same time provide students with a real innovation and entrepreneurship environment and project practice opportunities. Through the construction of practice bases, students can deeply understand the operation mode and market demand of enterprises, apply what they have learned in actual projects, and improve their practical ability and innovation and entrepreneurship ability.

3.3 Exploration of School-Enterprise Cooperation Models

3.3.1 Establish an access system for internship positions

Set the standard of specialty matching degree ($\geq 80\%$ is recommended), and ensure that the internship positions are highly relevant to the majors studied by the students. At the same time, establish a mechanism for assessing the quality of internship positions, strictly screen and assess the internship positions of enterprises, and give priority to enterprises that can provide technology research and development positions and have a clear cultivation plan and mentorship system as internship cooperation units. In this way, the quality of internship positions and the rate of professional matching can be improved, and more valuable internship opportunities can be provided for students.

3.3.2 Implement "internship positions - professional ability" mapping management

According to the students' professional ability and career development direction, tailor-made internship positions and cultivation plans are made for them. Through jointly formulating internship objectives, tasks and assessment standards with enterprises, personalized management of students' internship process is realized. At the same time, it establishes a tracking and feedback mechanism for the internship process, timely understands the performance and problems of students in the internship process, provides decision-making basis for enterprises and schools, and constantly optimizes the internship management.

3.3.3 Establish joint evaluation mechanism for school-enterprise internship positions

Regularly organize experts from both schools and enterprises to conduct joint evaluation of internship positions and assess the quality and effect of internship positions. Through the evaluation, problems existing in the process of internship can be found and solved in time, and the internship positions and training programs can be improved continuously. At the same time, the evaluation results are taken as an important basis for the evaluation of enterprise cooperation, so as to motivate enterprises to continuously improve the quality of internship positions and provide students with better internship environment and conditions.

3.3.4 Forming "Teaching-Research-Entrepreneurship" Feedback Ecology

Based on the theory of entrepreneurial ecosystem, we build "Teaching-Research-Entrepreneurship" feedback ecology through school-enterprise cooperation. Through the cooperation between schools and enterprises to carry out scientific research projects, the research results can be transformed into teaching content and innovation and entrepreneurship projects, so as to realize the benign interaction of teaching, scientific research and entrepreneurship. For example, the school can cooperate with enterprises to carry out research on cutting-edge technologies in the field of international trade, and apply the research results in the teaching curriculum and innovation and entrepreneurship projects, so as to cultivate students' innovation and practical ability; at the same time, the innovation and entrepreneurship projects of the students can also provide enterprises with new ideas and solutions, and promote the technological innovation and development of enterprises. Through the construction of this feedback ecology, it realizes the resource sharing and

complementary advantages of both schools and enterprises, and jointly promotes the development of international economics and trade majors.

4 Conclusion

Under the perspective of industry-teaching integration, the synergistic development of international economics and trade professional teachers' team construction and innovation and entrepreneurship education is of great practical significance. By strengthening the system of teachers' enterprise practice, reforming the evaluation system of teachers, and establishing the two-way flow mechanism of talents between schools and enterprises, the structural short board of teachers can be effectively cracked and the overall level of teachers can be improved; by optimizing the curriculum system of innovation and entrepreneurship education, innovating the teaching methods, and strengthening the construction of practice platforms, the in-depth fusion of professional education with innovation and entrepreneurship education can be realized, and the innovation thinking and entrepreneurial ability of students can be cultivated; by establishing an access system for internship positions, implementing the mapping management of "internship positions - professional ability", establishing a joint assessment mechanism for internship positions of schools and enterprises, and forming a feedback ecology of "teaching - scientific research - entrepreneurship", we can explore a more effective mode of cooperation between schools and enterprises and improve the quality of internships and talent cultivation. The quality of internship and talent cultivation can be improved. In the future, colleges and universities should further deepen the integration of industry and education, strengthen the cooperation and communication with enterprises, and constantly improve the mechanism of collaborative development between the construction of faculty and innovation and entrepreneurship education, so as to cultivate more high-quality, innovative and applied talents for the development of the specialty of international economics and trade.

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