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Research on the Talent Training Model of Industry-Education Integration Driven by the University-Enterprise Community

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Abstract:
Against the backdrop of China's national strategy to deepen industry–education integration, value-oriented leadership and organizational synergy have become the core driving forces of this integration. Taking the Dongguan Securities order-based class at Guangdong University of Science and Technology as the research case, this paper constructs a four-dimensional collaborative mechanism of joint organizational development, shared resource utilization, collaborative talent development and co-creation of outcomes. This mechanism effectively addresses longstanding problems in traditional financial education, including superficial school–enterprise cooperation and the marginalization of practical teaching. Practice shows that, through curriculum restructuring, platform co-construction and other measures, the model significantly enhances students' professional qualities and practical abilities, thereby achieves a precise match between talent supply and industrial demand. It thus provides a valuable practical example and theoretical reference for application-oriented universities seeking to deepen industry–education integration.

Keywords:
University-enterprise consortium, Industry-education integration, Order-based classes.

Introduction

The 2024 Government Work Report stresses that "high-quality development must remain the lifeline of education at all levels and in all forms." Education has been designated a major national and Party priority, with Xi Jinping emphasizing that "building a strong education nation is a foundational project for the great rejuvenation of the Chinese nation." The Ministry of Education's document Key Tasks for Reforming the Modern Vocational Education System further calls for "deepening industry–education integration and establishing industry–education integration communities."

Against this backdrop, this paper takes the Dongguan Securities order-based class at Guangdong University of Science and Technology (hereafter the "Order-Based Class") as a case study to explore a new pathway for talent development through industry–education integration driven by a university - enterprise consortium. Rooted in the industrial upgrading needs of the Guangdong - Hong Kong - Macao Greater Bay Area, Guang-

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dong University of Science and Technology has implemented collaborative education initiatives with multiple enterprises. Among these, the order-based program jointly established with Dongguan Securities has created a new model of industry - education integration characterized by school - enterprise collaboration and mutual benefits for all parties. Based on the organizational foundation of the university - enterprise consortium, this model converts the organizational and resource advantages of both sides into synergistic development capabilities, thereby achieving a precise match between the supply side of talent training and the demand side of industry.

1. Construction and Operational Mechanism of the University–Enterprise Consortium

As an innovative organizational form, the university - enterprise consortium provides the core institutional guarantee for the effective operation of the order-based class program. This co-construction model goes beyond traditional university - enterprise cooperation frameworks. Through deep collaboration within the consortium, it enables resource sharing, complementary strengths and coordinated development.

1.1. Joint Organizational Development

The consortium between Guangdong University of Science and Technology and Dongguan Securities was launched in 2019. Guided by the principles of geographical proximity, industry relevance and shared needs, the two parties have established a multi-level management system. At the college level, the school signed a co-construction agreement with the Liaobu Branch of Dongguan Securities and set up a Joint Practical Teaching Base Working Group, with leaders from both sides jointly serving as the heads of the base. At the implementation level, an Executive Committee for the Practical Teaching Base was established. It is composed mainly of middle-level managers from Dongguan Securities' Liaobu Branch, faculty members of Guangdong University of Science and Technology, class tutors and counsellors of relevant programs. Class tutors from the university and the enterprise jointly manage the base, ensuring that university–enterprise collaboration and specialized teaching progress in a synchronized manner.

1.2. Shared Resources

The university–enterprise consortium creates a robust mechanism for resource sharing. In terms of human resources, regional directors and other managers from Dongguan Securities serve as enterprise leaders for the order-based class, while the college appoints corporate managers as part-time external teachers, thereby forming a mutual appointment mechanism for high-level talent. In terms of educational resources, training laboratories are jointly used. The university also opens its library, online courses and other teaching resources to the enterprise, maximizing the utilization of existing facilities.

At the same time, the consortium has built a mechanism for cultural integration. Through joint activities such as "Investor Education" campaigns and seminars on the "spirit of craftsmanship in finance", corporate culture is organically integrated with campus culture. By organizing staff and students to participate in corporate activities, including Dongguan Securities' distinctive "competition + investor education + internship" programs, students are exposed to real workplace environments at an early stage and develop a stronger sense

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of professional identity. This deep cultural convergence provides lasting value-based support for industry–education integration.

Through the construction and operation of the consortium, the order-based class has formed a "five co-construction" collaborative education framework, The university and the enterprise jointly develop courses, compile teaching materials, build a school - enterprise case repository, construct an undergraduate practice teaching base and form a dual-mentor team. This new pattern of collaborative education provides solid organizational guarantees and institutional support for talent development in the order-based class. It also effectively overcomes long-standing problems in traditional university - enterprise cooperation, such as an overemphasis on form rather than substance and on signing agreements rather than implementation, thereby enables industry - education integration to take root in practice.

1.3. Collaborative Talent Development

The order-based class innovatively adopts a dual-drive model that combines organizational mechanisms with business operations. This brings about deep integration between talent cultivation and corporate operations. On the one hand, Dongguan Securities closely aligns the development of the securities market with national policy directives. On the other hand, the college embeds ideological and political education into the curriculum and fulfils the fundamental mission of fostering virtue through education. It integrates value formation, knowledge transmission and competence development, embedding ideological and political education throughout the entire teaching process of the order-based class and cultivating high-caliber financial professionals who possess both solid professional expertise and a strong sense of national responsibility.

During the talent development process, the university and the enterprise jointly develop the "Financial Securities Practice" course and integrate it into the training scheme for finance-related majors. The course is taught by corporate mentors and is supplemented by a series of fixed activities, such as "Cutting-Edge Investment Concepts and Practices", "Investor Education Across Hundreds of Schools", "Financial Culture in Higher Education" and "Simulated Stock Trading Competition" industry sharing sessions that promote sound investment concepts. In addition, "customized" on-demand classroom teaching is adopted, and whole-process guidance is provided in areas such as career planning and skills enhancement. These course activities not only strengthen value-oriented guidance in ideological and political education but also enhance students' professional competence, thus achieving resonance between ideological education and professional training.

1.4. Joint Achievement Creation

Joint achievement creation forms the closed-loop link in the operation of the university–enterprise consortium. It is both a key indicator for evaluating the effectiveness of collaboration and a concrete embodiment of the consortium's value. Rather than simply aggregating resources, it seeks to transform the wisdom and investment of both parties into sustainable and replicable teaching achievements and educational resources through deep cooperation. In turn, these achievements feed back into the entire talent development process and foster a virtuous cycle of collaboration.

In the practice of the order-based class, joint achievement creation is reflected in a "five co-construction" collaborative education framework:

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(1) Co-developing core courses to align teaching content with industry needs. The jointly developed "Financial Securities Practice" course, which is embedded in the talent training scheme, is a typical example. It translates real business needs of the enterprise, such as financial marketing, data analysis and investor education, into concrete teaching modules and incorporates industry certification standards. This ensures that the course content remains both cutting-edge and practical and fundamentally addresses the problem of disconnection between learning and application.

(2) Co-compiling practical textbooks and case repositories to bridge the theory–practice gap. Drawing on the enterprise's rich practical experience, the university and the enterprise jointly compile and continuously update the "Financial Securities Practice" textbook. More importantly, they build a joint case repository that transforms real projects, typical experiences and reflective cases from corporate operations into teaching resources. This allows students to engage with "live" industry scenarios in the classroom and greatly enhances the relevance and inspirational value of teaching.

(3) Co-building practical teaching bases to create concrete platforms for education. By signing a co-construction agreement, the two parties establish a joint practical teaching base that provides both physical space and institutional safeguards for industry - education integration. The base is not only a place for students' observation and internship. It is also a multifunctional platform that integrates course teaching, skills training and social services and serves as the "operational stronghold" of the consortium, transforming cooperation from "paper agreements" into tangible joint construction.

(4) Co-building dual-mentor teams to realize complementary strengths in teaching staff. The college appoints enterprise managers as off-campus part-time teachers, while senior corporate executives serve as leaders of the order-based class, forming an institutionalized mutual appointment mechanism. This dual-mentor team combines the theoretical strengths of university teachers with the practical strengths of enterprise mentors. It jointly designs training schemes, co-teaches courses and provides joint guidance, thereby achieving seamless integration between theoretical instruction and practical supervision.

(5) Co-cultivating teaching achievements to form a replicable talent development model. Based on the above co-construction, the order-based class has produced a series of high-quality teaching achievements, such as provincial first-class courses and provincial-level undergraduate practice teaching bases. These outcomes are themselves the result of collaborative innovation within the consortium. They not only enhance the training quality of the order-based class but also provide a replicable and adaptable model of talent development for industry–education integration in other disciplines.

2. Innovative Practice of an Industry–Education Integration Talent Development Model Driven by a University–Enterprise Consortium

Within the framework of the university - enterprise consortium, Guangdong University of Science and Technology and Dongguan Securities have jointly built a systematic and distinctive talent development model for the order-based class. Guided by industry demand and centered on competence development, this model realizes seamless alignment between talent training and job requirements through curriculum restructuring, instructional innovation and strengthened practical learning.

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2.1. Demand-Oriented Talent Development System

The order-based class takes "person–position matching" as its core principle. In response to both teaching needs and enterprise staffing requirements, it organizes faculty members to enter enterprises and engage directly with frontline operations. In this way, they accurately grasp industrial needs and job competency requirements and, on this basis, jointly design training schemes, which are then implemented in a targeted manner according to specific corporate job profiles. Each year, a selected group of third-year finance majors is formed into the "Dongguan Securities Order-Based Class". While the original teaching plan remains unchanged, an additional elective course entitled "Practical Financial Securities Operations" is introduced. This course is taught independently by corporate experts from Dongguan Securities or by externally recruited technical specialists. Its curriculum covers modules such as "Financial Marketing", "Financial Data Analysis", "Investor Education" and "Financial Security", and incorporates certification standards including the Securities Practitioner Qualification Examination. The course content is adjusted dynamically where appropriate to ensure that teaching remains synchronized with evolving job requirements.

2.2. Innovative "Three-Classroom Linkage" Teaching Model

The order-based class implements a "first classroom + second classroom + enterprise classroom" three-classroom linkage model, extending the temporal and spatial dimensions of talent development. In the first classroom (on-campus teaching), corporate mentors select different modules and adopt project-based and case-based teaching methods, integrating practical elements into their instruction to guide students in discovering and solving problems. In the second classroom (on-campus practice), students are organized to participate in specialized competitions such as the Tonghuashun Competition, the "Zhisheng Cup" National University Student FinTech Innovation Competition and the National Internet Finance Application Innovation Competition for Higher Education Institutions, with competition content being embedded into teaching. In the enterprise classroom (off-campus practice), students undertake semester-long placements and summer practice, entering frontline business operations and achieving a "zero-distance" connection with employment.

In the course of implementation, particular emphasis is placed on dual-mentor collaborative guidance. Each cohort of the order-based class is assigned both on-campus and off-campus mentors. University mentors are responsible for course planning, teaching feedback and assessment. Enterprise mentors focus on practical skills training and career development guidance. The two sides jointly design individualized training plans, thereby realizing the integration of teaching, learning and doing. By pooling educational resources from both the university and the enterprise, this teaching model supports students' all-round development in three dimensions. theoretical learning, skills training and professional experience.

2.3. "Four-in-One" Practical Teaching System

The Dongguan Securities order-based class has established a progressive practical teaching system that integrates four stages: "awareness → simulation training → practice → internship / work placement". In the awareness stage, students gain an overall understanding of securities operations through online course resources and lectures delivered by industry experts. In the simulation training stage, they complete full business process operations using simulated trading platforms. In the practice stage, they carry out single-skill

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training either on campus or in enterprises, such as conducting client needs analysis and designing investment portfolios. In the internship/placement stage, students enter various branches of Dongguan Securities, where they observe and experience tasks in real work settings such as account opening, transaction processing and investment advisory services. Alternatively, in their fourth year, students in the order-based class may undertake internships directly at Dongguan Securities. This three-dimensional practical platform provides students with rich experiential opportunities and effectively enhances their ability to adapt to professional roles.

2.4. Dynamic Evaluation and Feedback Mechanism

The order-based class has established a process-oriented evaluation system involving multiple stakeholders, moving away from the traditional single approach based mainly on examination scores. Evaluation subjects include university teachers, enterprise mentors and the smart teaching platform. The content of evaluation covers several dimensions. professional knowledge, practical skills, professional ethics and innovative potential. Formative assessment methods are adopted across the three learning environments. the first classroom, the second classroom and the enterprise classroom are evaluated respectively by university mentors, enterprise mentors and the digital teaching platform. Students who successfully pass the course assessment receive employment offers from the partner enterprise upon graduation. This evaluation approach significantly strengthens the incentive effect of the course.

At the same time, a "training–employment" tracking and feedback mechanism has been put in place. On the one hand, regular surveys are conducted to follow up on the career development of previous graduates. On the other hand, feedback from employers on graduates' competencies is collected and used to adjust the structure and content of the training curriculum. This closed-loop management mechanism ensures the continuous improvement of the talent development process.

3.Implementation Outcomes of the Industry–Education Integration Order-Based Class under the University–Enterprise Consortium

3.1.Significant Improvement in Talent Development Quality

The most direct outcome of the order-based class is the notable enhancement of students' overall quality and employment competitiveness. This is reflected in three key areas. performance in academic competitions, attainment of professional qualifications and employment quality.

(1) Academic competitions. Students from the order-based class have won multiple national awards in events such as the National University Student Financial Technology Innovation Competition, the National Internet Finance Application Innovation Competition for Higher Education Institutions, the Enterprise Competition Simulation Contest, the National Economics Game Theory Competition and the "Ping An Caimeng Cup" University Student Financial Literacy Competition. These achievements stem from the program's strategy of integrating competition content into classroom teaching. By "promoting learning and teaching through competitions", the program effectively strengthens students' capacity for innovation and practical application.

(2) Professional qualifications. Students in the order-based class have demonstrated strong performance in

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professional certification examinations. When undergraduates were still allowed to sit the Securities Practitioner Qualification Examination, the pass rate of students in the order-based class reached 100 per cent. Under the current policy, whereby full-time students cannot take this examination while enrolled, students in the order-based class are able to rely on the partner enterprise to register for the qualification examination and receive both instruction and exam preparation guidance from corporate experts.

(3) Employment quality. The order-based class has achieved both high employment rates and a high degree of job–major alignment. Most graduates take up positions in securities firms, banks and other partner financial institutions. Their job matching and starting salaries are significantly better than those of students who did not participate in the order-based class.

3.2.Collaborative Development Outcomes for the University and the Enterprise

(1)At the college level. The construction of the order-based class has promoted both the substantive development of the program and the strengthening of the teaching team. In terms of program development, building on this collaboration, the college has successfully secured approval for an undergraduate practical teaching base project and a first-class course entitled “Financial Securities Practice”. Together with the enterprise, it has jointly compiled the Financial Securities Practice textbook and developed a case repository based on real school–enterprise cooperation projects. In terms of faculty development, through mutual appointments between the university and the enterprise, teachers’ practical teaching competence has been significantly enhanced. By integrating the resources of both sides, the partnership enables dynamic alignment between the talent development scheme and market demand and produces marked synergistic effects, as illustrated in Figure 1.



Figure 1. Outcome development under the university–enterprise consortium

(2)At the enterprise level. The order-based class provides the enterprise with a stable pipeline of talent and sustained intellectual support. The enterprise brings pre-service training forward into the curriculum and signs agreements with students so that those who successfully pass course assessments receive an employment offer upon graduation. In this way, the enterprise builds a reserve of highly skilled personnel and reduces the cost of training new employees. At the same time, enterprise staff serve as off-campus mentors, engaging in a process of mutual learning with university teachers that improves their own theoretical knowledge and training capability.

(3)Social service and regional contribution. On the one hand, the order-based class actively participates in public-interest activities such as investor education and thereby fulfils its social responsibility. Through joint-

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ly organized “Investor Education in a Hundred Schools” campaigns, teachers and students of the order-based class enter communities and enterprises to disseminate financial knowledge and help prevent illegal securities activities. These initiatives not only foster students’ sense of social responsibility but also enhance the social image of both the university and the enterprise. On the other hand, by cultivating talent in line with the practical needs of enterprises, the order-based class supplies applied financial professionals for the Guangdong - Hong Kong - Macao Greater Bay Area and realizes a unity of economic and social benefits.

Conclusions

This study shows that the establishment of a university - enterprise consortium effectively breaks through the superficial nature of traditional school - enterprise cooperation. By building a four-dimensional collaborative mechanism. joint organizational development, shared resource utilization, collaborative talent development and co-creation of outcomes. together with an innovative “three-classroom linkage” talent development model, the practice has significantly improved the quality of talent cultivation. At the same time, as an important initiative through which the college serves the local economy, the university - enterprise consortium fully leverages the strengths of both parties in talent development, disciplinary expertise and market resources, injecting new momentum into the economic development of the Guangdong - Hong Kong - Macao Greater Bay Area.

Roles or Tasks Name

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Conceptualization	Zhijing Liu
Methodology	Zhijing Liu
Software	Zhijing Liu
Validation	Zhijing Liu
Formal analysis	Zhijing Liu
Investigation	Zhijing Liu
Resources	Zhijing Liu
Data Curation	Zhijing Liu
Writing – original draft preparation	Zhijing Liu
Writing – review and editing	Zhijing Liu
Visualization	Zhijing Liu
Supervision	Zhijing Liu
Project administration	Zhijing Liu
Funding acquisition	Zhijing Liu

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